

**KOHLER** AEGIS®

# The next wave in liquid-cooled technology.

**KOHLER® Aegis 20-31 HP liquid-cooled  
vertical- and horizontal-shaft V-twin engines**



**KOHLER. AEGIS, 24**  
+ EXCEEDS EPA 21.9 HP STANDARD + DRY-LEG-COOLING

**KOHLER. AEGIS, 28**  
+ EXCEEDS EPA 27.4 HP STANDARD + DRY-LEG-COOLING

HOT

**KOHLER** AEGIS. | 20-31 HP

**KOHLER** AEGIS

THE FUTURE OF



Kohler leads the industry with a liquid-cooled

engine series. Featuring a technologically

advanced cooling system and revolutionary

# LIQUID COOLING

air filtration, KOHLER® Aegis engines are a

breakthrough in design and performance.

These powerhouses deliver cooler oil temperatures,

consistent running temperatures and improved air

filtering for peak engine performance and

reliability. And with their compact, integrated

design, KOHLER Aegis® engines bring liquid-cooled

technology to applications where larger

engines would not fit.



## **AEGIS** LIQUID COOLING **SYSTEM**

KOHLER® Aegis engines feature liquid

cooling systems that ensure consistent flow

and superior cooling to each cylinder.

The results are less cold-start friction,

faster warm-up time, lower oil temperatures,

reduced engine wear, more power and

longer engine life.



## EFFICIENT AIR FILTRATION SYSTEMS

The dual-element air filter of the vertical-shaft model (shown) features an interference fit for superior sealing plus a unique hold-down strap for faster, easier servicing. The horizontal-shaft model incorporates a heavy-duty design that continuously collects and discards trapped dust. Both engines offer reliable two-stage filters that have larger filter areas than standard air filters. They ensure cleaner combustion, maximum power and longer service intervals.

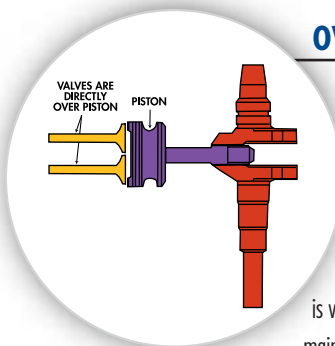


## COMPACT, INTEGRATED PACKAGE

KOHLER® Aegis engines can easily fit into unique applications. They are easy to install and feature a footprint that is interchangeable with KOHLER Command® twin-cylinder engines.

## USER-FRIENDLY FEATURES

In addition to all of these unique attributes, KOHLER Aegis engines boast a number of user-friendly features: dual oil drains, easy-access oil fill, low-oil protection, in-line fuel filter and either top- or low-mount connections for boden wire controls.



## OVERHEAD VALVE EFFICIENCY

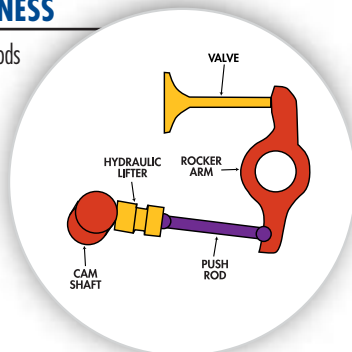
The intake and exhaust valves of KOHLER Aegis® engines are positioned directly over the piston, providing greater volumetric efficiency and a higher compression ratio. This produces more power, improves fuel economy and cooling and reduces oil consumption. In addition, there is virtually no carbon buildup, reducing overall maintenance costs.

## BEST WARRANTY IN THE INDUSTRY

KOHLER Aegis engines are backed by a three-year limited warranty. The warranty covers both consumer and commercial applications. All KOHLER engine products are supported by a worldwide network of some 13,000 dealers and distributors. Factory-trained technicians and genuine KOHLER replacement parts are available when you need them.

## HYDRAULIC VALVE SMOOTHNESS

Oil-pressurized valve lifters ensure that push rods remain in constant contact with rocker arms, eliminating valve adjustment. This keeps the valve train nearly maintenance free.

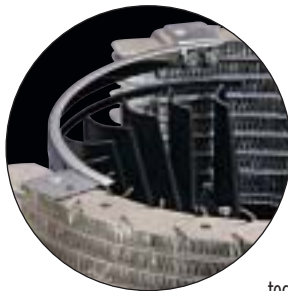


## **KOHLER® Aegis — vertical technology that's really making a splash.**

KOHLER Aegis vertical-shaft engines combine a patented liquid cooling system and innovative air filter configuration with the proven design success of the Command® line. Quiet-running, vertical-shaft KOHLER Aegis engines deliver peak power and torque, fuel efficiency and long engine life to the commercial turf, golf course management and consumer lawn and garden markets.



KOHLER Aegis 24 HP engine with standard muffler and shield.



### **REVOLUTIONARY RADIATOR DESIGN**

The state-of-the-art radiator design, featuring a low-profile heat exchanger, utilizes the cooling technology used in heavy-duty off-road applications. The split-core radiator is arranged in a semicircular configuration directly below the blower housing, resulting in a robust liquid cooling system.

### **CONVENIENT BLOWER HOUSING**

The nonmetallic blower housing of the KOHLER Aegis engine is held in place by four convenient rubber cords, eliminating tools and fasteners. Releasing the cords will loosen the blower housing for easy servicing of the air cleaner, heat exchangers and other parts within.

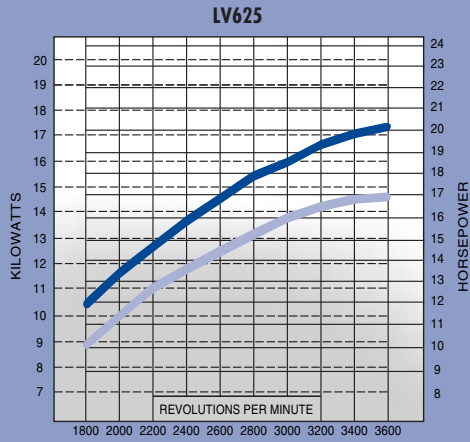


### **INTEGRAL WATER PUMP**

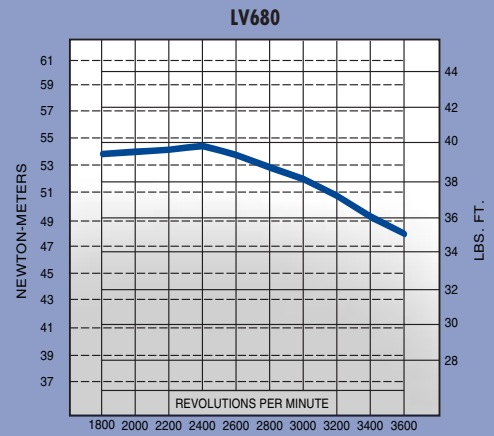
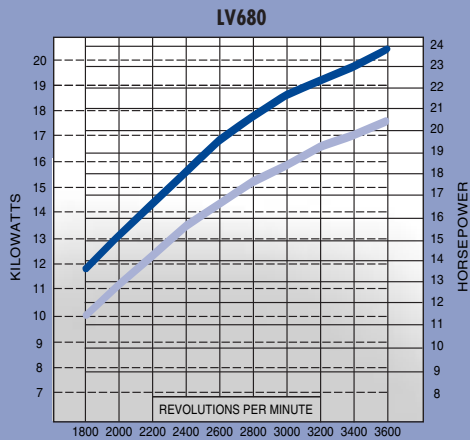
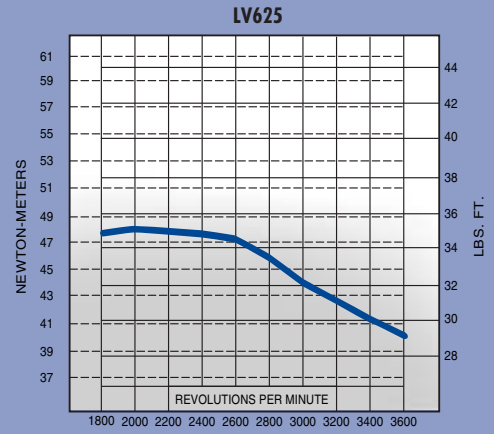
The belt-driven water pump is integral with the crankcase, resulting in a more compact design and quieter operation. The pump splits the flow of water between cylinders, allowing for a more uniform cooling process than a serial-flow cooling system.

# Performance

## POWER



## TORQUE



Maximum Recommended

Maximum



## THE BENEFITS OF CHOOSING A VERTICAL-SHAFT KOHLER. AEGIS ENGINE:

### EASY, DEPENDABLE STARTS

- A** Electronic ignition system
- B** Solenoid shift starter

### RELIABILITY & LONG-LIFE DESIGN

- C** High-flow cooling fan
- D** Dual low-profile radiators
- E** Coolant thermostat
- F** Large-capacity, interference-fit air filter
- G** Multilayered steel head gaskets
- H** Hydraulic valve system
- I** Lost foam cast cylinder heads
- J** Gerotor<sup>™</sup> oil pump

### PEAK POWER PERFORMANCE

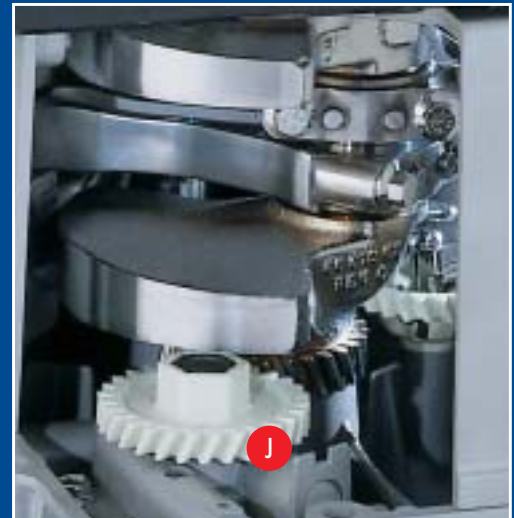
- K** Overhead valve, V-twin design
- L** Increased displacements
- M** High-inertia flywheel
- N** Breather separator system

### QUIET, SMOOTH OPERATION

- O** Mechanical governor
- P** Silenced air intake
- Q** Integrated belt-driven water pump

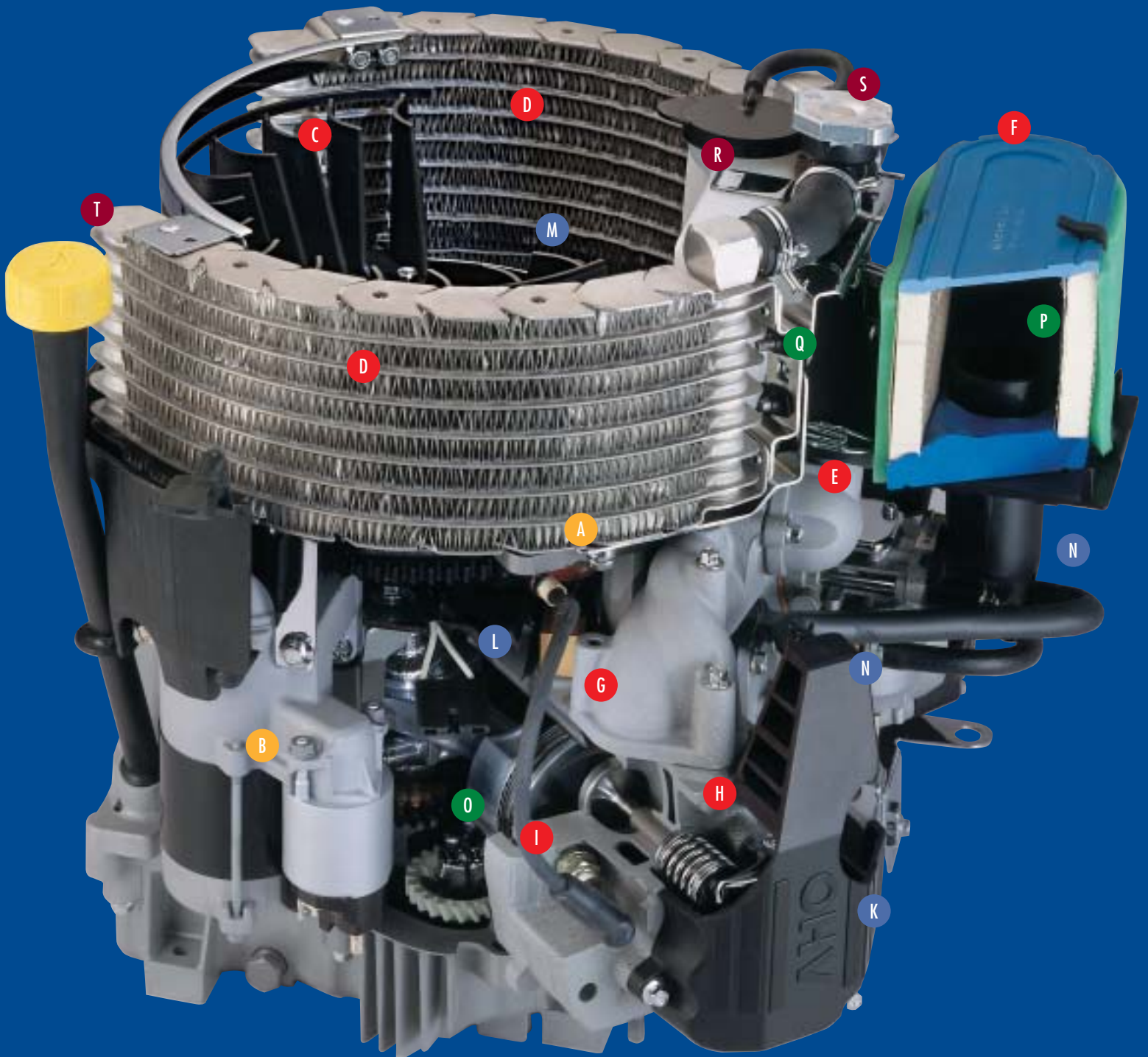
### USER-FRIENDLY MAINTENANCE

- R** Coolant overflow bottle
- S** Heat exchanger cap
- T** Oil fill/dipstick with yellow cap
- U** Boden wire controls





# Features & Benefits



## Taking cool in a different direction.

The horizontal-shaft KOHLER® Aegis engine, with its automotive-style radiator and heavy-duty air filtration system, delivers superior performance custom-made for demanding applications.

By integrating the overhead valve design of the successful KOHLER Command® line, KOHLER Aegis engines offer optimal fuel efficiency, consistent running temperatures and quiet operation. Easy-access service points, a solenoid shift starter and a three-year limited warranty put the finishing touches on this impressive package.



KOHLER Aegis 28 HP engine with standard radiator and heavy-duty air cleaner.



### EFFICIENT LIQUID COOLING SYSTEM

An integrated, automotive-style radiator increases overall engine life and reliability. Its narrow width keeps the engine running cool by maintaining low oil and cylinder head temperatures and consistent running temperatures. The radiator can be positioned in both front-mount and low-mount configurations.

### HEAVY-DUTY AIR CLEANER

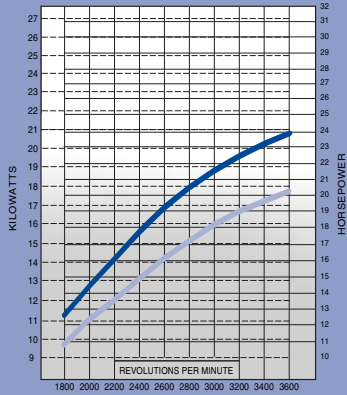
Dual filters deliver maximum performance. The main filter traps dirt and debris while the inner filter prevents carburetor contamination during main filter servicing.



# Performance

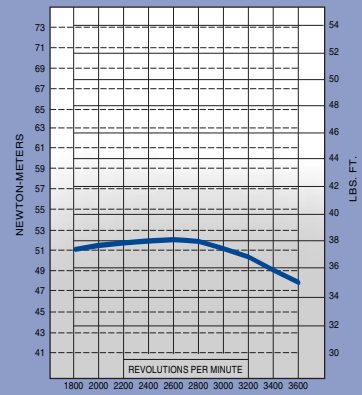
## POWER

### LH640

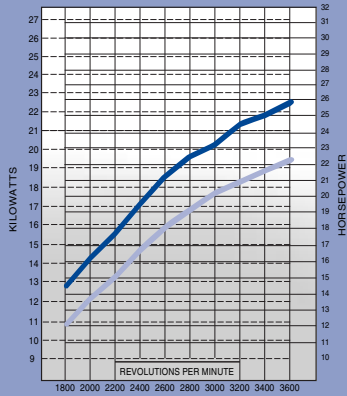


## TORQUE

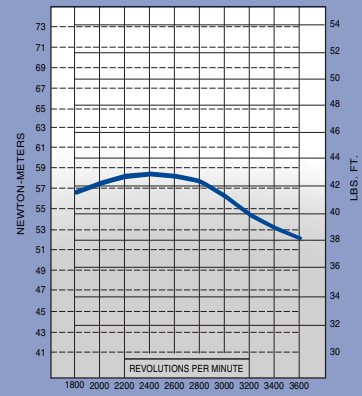
### LH640



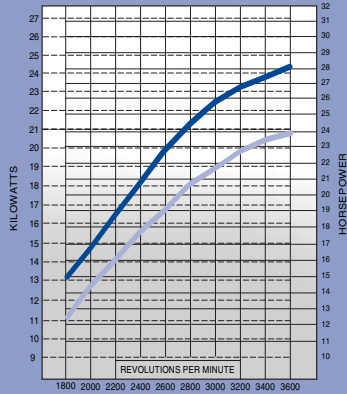
### LH690



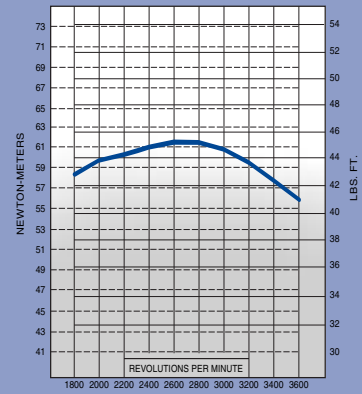
### LH690



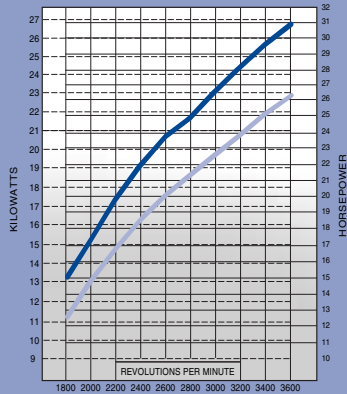
### LH755



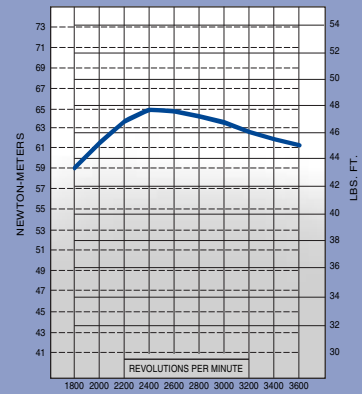
### LH755



### LH775



### LH775



Maximum Recommended

Maximum

## THE BENEFITS OF CHOOSING A HORIZONTAL-SHAFT KOHLER® AEGIS ENGINE:

### EASY, DEPENDABLE STARTS

- A** Electronic ignition system
- B** Solenoid shift starter
- C** Mechanical fuel pump

### RELIABILITY & LONG-LIFE DESIGN

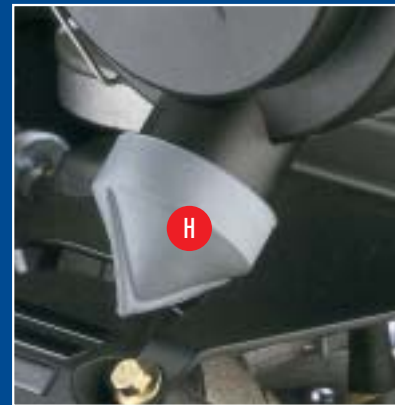
- D** High-flow cooling fan
- E** Automotive-style, liquid cooling
- F** Coolant thermostat
- G** Heavy-duty air cleaner with rain cap
- H** Dirt ejection system, air cleaner
- I** Hydraulic valve lifters
- J** Gerotor™ oil pump
- K** Oil Sentry™ low-oil alert

### PEAK POWER & PERFORMANCE

- L** Overhead valve, V-twin design
- M** High-inertia flywheel
- N** Closed breather system

### USER-FRIENDLY MAINTENANCE

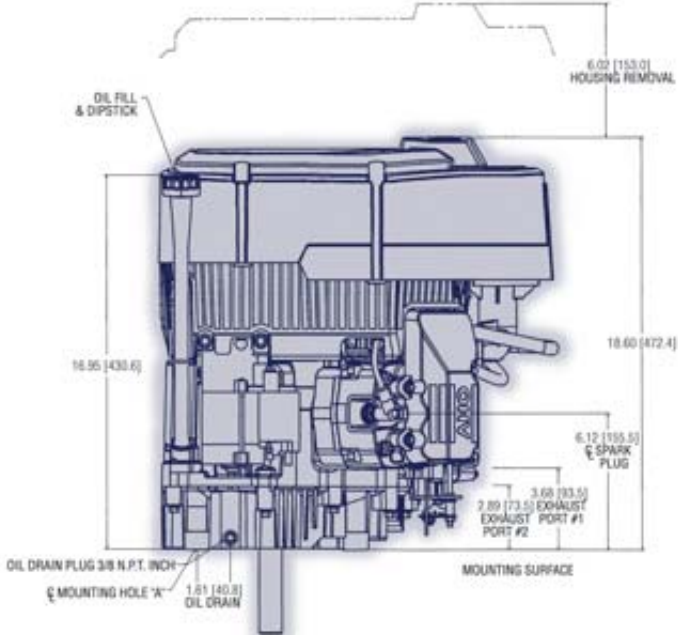
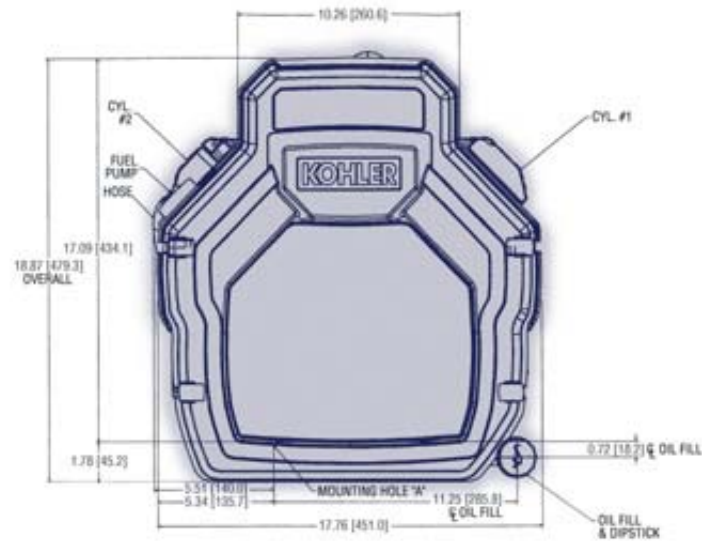
- O** Coolant overflow bottle
- P** Radiator cap
- Q** Full-pressure lubrication with spin-on filter
- R** Dipstick with yellow handle
- S** Oil fill with yellow cap
- T** In-line fuel filter



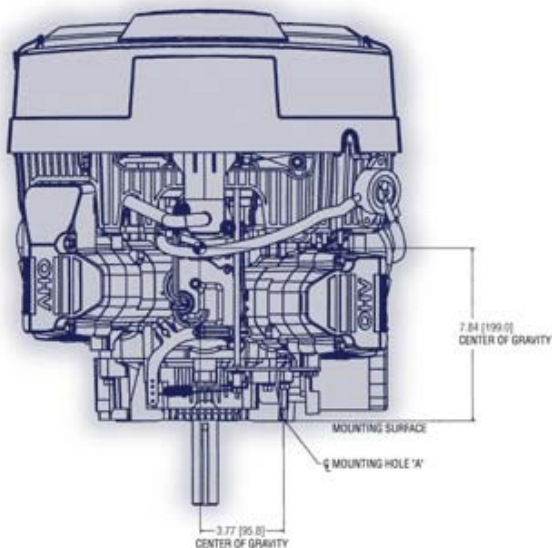
# Features & Benefits



# KOHLER AEGIS® Vertical-Shaft Dimensions



Dimensions in [ ] are millimeter equivalents.



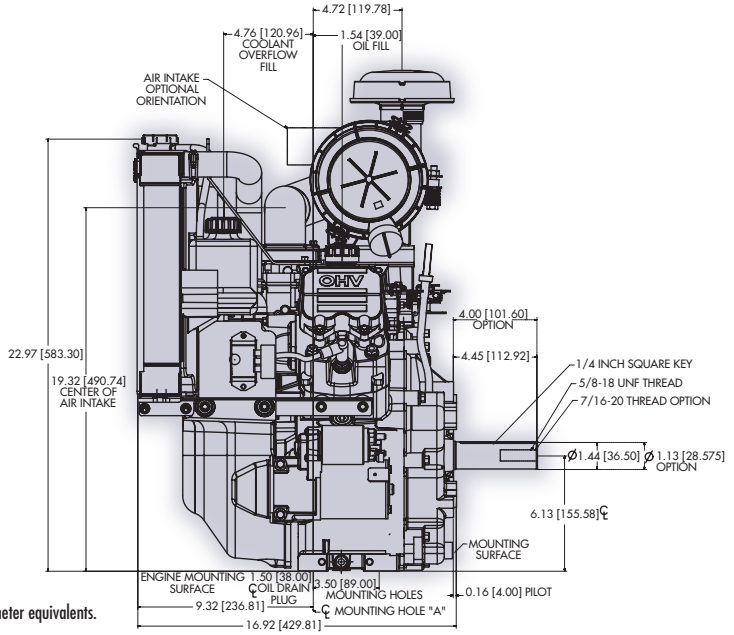
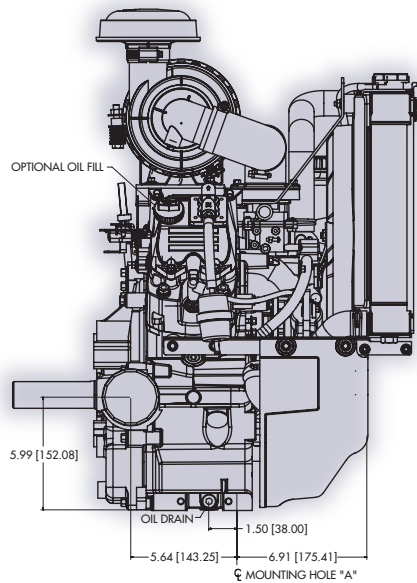
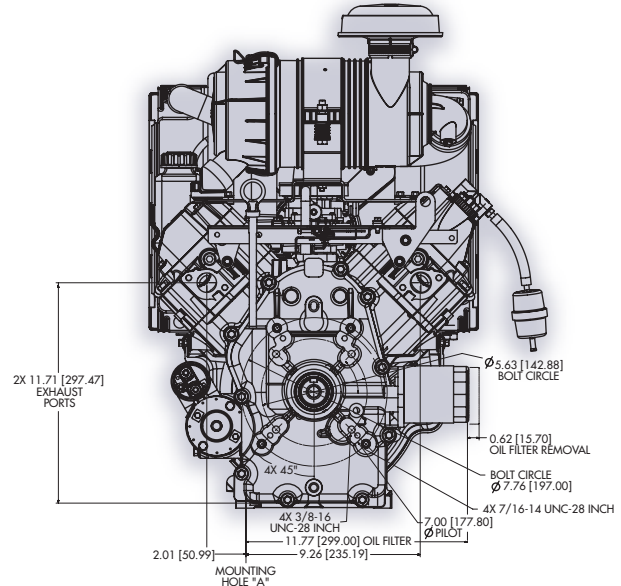
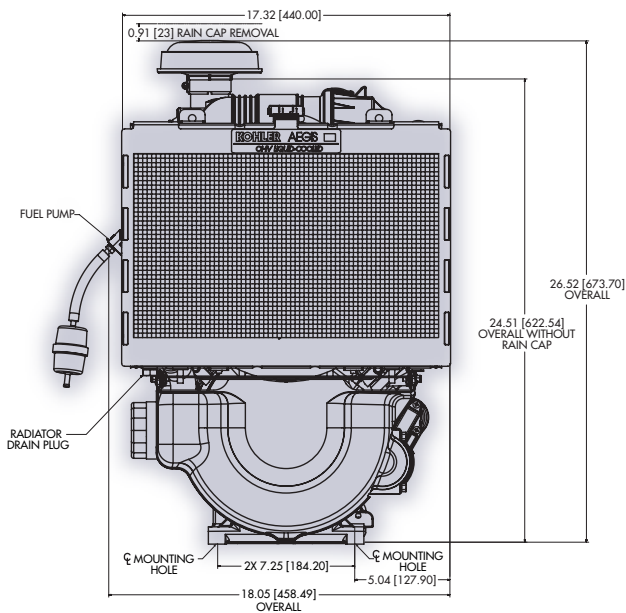
## CRANKSHAFT/MOUNTING FACE OPTIONS DIMENSIONS: INCH [MM]

MODEL:	LV625/680
PTO TYPE:	STRAIGHT
PTO DIAMETER:	1.00 [25.4]
PTO LENGTH (TO FACE):	3.17 [80.3]
PTO DRILL & TAP: TAP DEPTH:	7/16-20 UNF-2B 1.50 [38.1]
PTO KEYWAY WIDTH:	0.25 [6.35]
BOLT CIRCLE DIAMETER:	10.0 [254]

NOTE: Contact your KOHLER® representative for special crankshafts or mounting faces not shown here.

# Horizontal-Shaft Dimensions

# Dimensions



Dimensions in [ ] are millimeter equivalents.

CRANKSHAFT/MOUNTING FACE OPTIONS							
DIMENSIONS: INCH [MM]							
MODEL:	LH640-690-755-775						
PTO TYPE:	STRAIGHT	STRAIGHT	SPLINE	SPLINE	SPLINE	TAPER	TAPER
PTO DIAMETER:	1.125 [28.6]	1.437 [36.5]	1.5 [38.1]	1.5 [38.1]	1.5 [38.1]	N/A	N/A
PTO LENGTH (TO FACE):	4.0 [101.5]	4.45 [113.2]	0.59 [14.9]	0.59 [14.9]	0.45 [11.5]	3.94 [100]	3.94 [100]
PTO TAPER:	N/A	N/A	N/A	N/A	N/A	2.25 / FOOT	1.5 / FOOT
PTO TOOTH (A & B MOUNT):	N/A	N/A	9	11	13	N/A	N/A
PTO DRILL & TAP:	7/16-20 UNF2-B	3/8-16 UNF2-B	N/A	N/A	N/A	5/16-24 UNF2-B	3/8-16 UNF2-B
TAP DEPTH:	1.5 [38.1]	1.5 [38.1]	N/A	N/A	N/A	0.625 [15.9]	0.94 [23.8]
PTO KEYWAY WIDTH:	0.25 [6.35]	0.375 [9.53]	N/A	N/A	N/A	N/A	N/A
BOLT CIRCLE DIAMETER:	5.625, 7.75	5.625, 7.75	5.625, 7.75	5.625, 7.75	5.625, 7.75	5.625, 7.75	5.625, 7.75
PILOT DIAMETER:	7.0 [178]	7.0 [178]	N/A	N/A	N/A	7.0 [178]	7.0 [178]

NOTE: Contact your KOHLER® representative for crankshafts or mounting faces not shown here.

<b>ENGINE TYPE</b>		Four-cycle, V-twin cylinder, liquid-cooled, vertical- and horizontal-shaft, gasoline, full-pressure lubricated with oil filter, aluminum head and crankcase with cast iron cylinder liners.					
	<b>MODEL:</b>	<b>LV625</b>	<b>LV680</b>	<b>LH640</b>	<b>LH690</b>	<b>LH755</b>	<b>LH775</b>
POWER @ 3600 RPM*	hp (kW)						
	Maximum Recommended	20 (14.9) 17 (12.7)	24 (17.9) 20.4 (15.2)	24 (17.9) 20.4 (15.2)	26 (19.4) 22.1 (16.5)	28 (20.9) 23.8 (17.7)	31 (23.1) 26.4 (19.7)
DISPLACEMENT	cu. in. (cc)	38.1 (624)	41.1 (674)	38.1 (624)	41.1 (674)	45.6 (747)	45.6 (747)
BORE	in. (mm)	3.03 (77)	3.15 (80)	3.03 (77)	3.15 (80)	3.3 (83)	3.3 (83)
STROKE	in. (mm)	2.64 (67)	2.64 (67)	2.64 (67)	2.64 (67)	2.7 (69)	2.7 (69)
PEAK TORQUE @ MAXIMUM	lb. ft. @ rpm	35.4 @ 2000	40.0 @ 2400	38.3 @ 2400	42.9 @ 2400	45.4 @ 2800	47.7 @ 2400
COMPRESSION RATIO		8.5:1	8.5:1	8.5:1	8.5:1	8.7:1	8.7:1
DRY WEIGHT**	lb. (kg)	108 (49)	108 (49)	114 (51.7)	114 (51.7)	114 (51.7)	114 (51.7)
OIL CAPACITY W/FILTER	U.S. quarts (L)	2 (1.9)	2 (1.9)	2 (1.9)	2 (1.9)	2 (1.9)	2 (1.9)
DIMENSIONS W/RADIATOR*** in. (mm)	Length	18.9 (479)	18.9 (479)	17 (432)	17 (432)	17 (432)	17 (432)
	Width	17.9 (455)	17.9 (455)	18.1 (459)	18.1 (459)	18.1 (459)	18.1 (459)
	Height	18.6 (472)	18.6 (472)	26.5 (674)	26.5 (674)	26.5 (674)	26.5 (674)
DIMENSIONS LESS RADIATOR**** in. (mm)	Length	-	-	14 (356)	14 (356)	14 (356)	14 (356)
	Width	-	-	17.8 (452)	17.8 (452)	17.8 (452)	17.8 (452)
	Height	-	-	26.5 (674)	26.5 (674)	26.5 (674)	26.5 (674)

\*Horsepower ratings exceed Society of Automotive Engineers Small Engine Test Code J1940. Actual engine horsepower is lower and affected by, but not limited to, accessories (air cleaner, exhaust, charging, cooling, fuel pump, etc.), application, engine speed and ambient operating conditions (temperature, humidity and altitude). For more information, contact Kohler Co. Engine Engineering Department. Kohler reserves the right to change product specifications, designs and equipment without notice and without incurring obligation.

\*\*Weight with oil and coolant: LV is 118 lb. (53.5 kg) LH is 125.4 lb. (56.9 kg).  
 \*\*\* LV length is air cleaner end to oil fill end; width is oil filter side to starter side; height is mounting surface to grass screen cover.  
 LH length is radiator to mounting surface; width is oil filter side to starter side; height is mounting feet to rain cap.  
 \*\*\*\* LH length is fan pulley to mounting surface; width is oil filter side to starter side; height is mounting feet to rain cap.

### STANDARD FEATURES (BASIC ENGINES)

- Electronic fuel injection (LH775)
- Parallel-flow radiator (LV)
- Automotive-style radiator with high-flow cooling fan (LH)
- Radiator debris screen (LH)
- Coolant overheat switch and alarm
- Overhead valve design
- Hydraulic valve lifters
- Electronic ignition
- 12 volt solenoid shift starter
- 20 amp charging, regulated
- PTO side load bearing (LH)
- High-performance spark plugs
- Accelerator pump carburetor with self-relieving choke
- Fuel shutdown solenoid
- Mechanical fuel pump (LH)
- Pulse fuel pump (LV)
- In-line fuel filter
- Closed breather system
- Heavy-duty air cleaner
- Dual-element air filtration
- Hardened crankshaft journals
- Canister muffler with heat shield, center outlet (LV)
- Stellite exhaust valves, seat inserts
- Full-pressure lubrication
- Spin-on, full-flow oil filter
- Dual oil drains
- Oil Sentry™
- High-mount controls bracket
- 3-year warranty

### POPULAR FACTORY OPTIONS

- Coolant-temperature gauge
- Coolant installed
- High-oil temp cutout switch
- Remote oil filter
- Instrument panel (LH)
- 15 amp charging, regulated
- 25 amp charging, regulated
- RFI package
- Low-mount controls bracket
- Commercial grass screen (LV)
- Exhaust deflectors
- Spark arrestors
- Optional mufflers
- Crankshaft sizes



FOR MORE INFORMATION, CONTACT YOUR KOHLER SOURCE OF SUPPLY OR CALL TOLL-FREE IN THE U.S. AND CANADA **1-800-544-2444**.

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