Universal Motor Co.

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^ Hercules, Kabota, Beta, Nanni, Westerbeke >

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NOTES:

With over 75 years experience with marine propulsion engines, it's easy to see why Universal marine diesel engines by Westerbeke have led the way in auxiliary marine propulsion. Exclusively designed for marine applications, our Universal boat engines represent a breakthrough in marine diesel engine compactness, quietness, and reliability. Used by the most prestigious auxiliary sailboat builders, thousands of Universal diesel engines have been installed in boats for pleasure, commercial and government use.

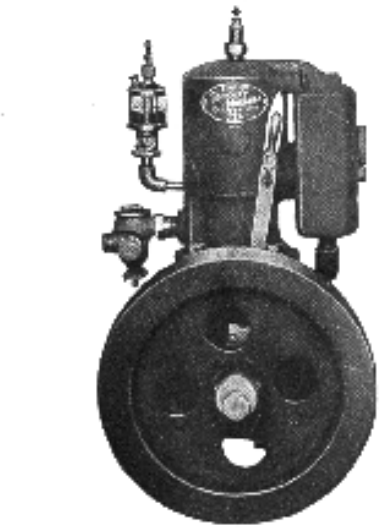
Dedication to Service:

The performance of our Universal diesel propulsion engines is matched only by our customer service performance, powered by a worldwide Master Distributor and dealer network. Whether the issue is

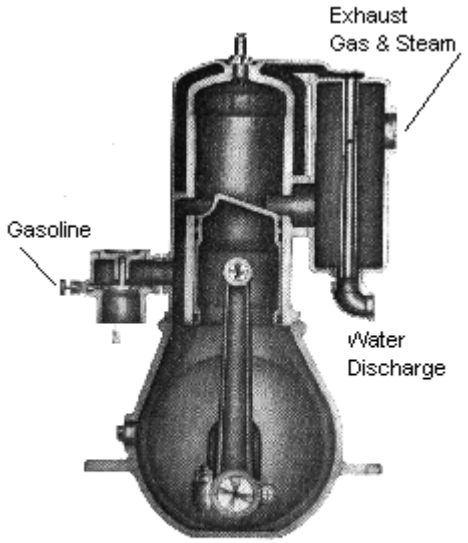
Universal diesel engine parts, warranty, or technical service, our Universal engine distributors and dealers are dedicated to making sure that every customer is taken care of in the most efficient way possible. Wherever you are, odds are that friendly Universal marine diesel engine support is close by.

More from Universal marine engines by Westerbeke.

Universal Motor Company History
Fahrney⇒Termatt & Monahan⇒T&M⇒Badger⇒Universal



1½ H. P. T. & M. Reversible Engine



Sectional View
Note the Simplicity of Moving Parts

The Early Years

In 1895 E. Homer Fahrney, a Chicago industrialist who owned a summer home in Oshkosh, Wisconsin, built and patented a 2 stroke single cylinder inboard marine engine that he used to power the boat he kept on Lake Winnebago near Oshkosh. Soon he built similar engines for several of his friends. The original engine was displayed during the Chicago World's Fair at the Chicago Museum of Science and Industry, formerly called the Julius Rosenwald Museum, 57 Street and Lake Shore Drive, Chicago, IL.

In 1898 Fahrney joined with two Oshkosh men, Louis J. Monahan and John Termatt, who owned the Termatt & Monahan Company (a partnership they had formed in 1892), to manufacture Fahrney's engine (henceforth referred to as the Model A). Monahan was the president, Termatt the vice-president, and Fahrney the chief stockholder. In 1902 the Termatt & Monahan Company was sold to West Malleable & Grey Iron Company of Milwaukee, Wisconsin (later the Simplicity Engine Company of Port Washington, Wisconsin). See more about Termatt & Monahan Company. More from Termaat & Monahan Oshkosh WI.
In 1903 Termatt and Monahan formed the T & M Company and continued to build Fahrney's engine, as

well as larger multi-cylinder two-cycle marine engines ranging in size from 1 to 10 hp. The 2 cylinder models produced 8 hp at 600 rpm.

The engines up to 4 hp were fitted with jump-spark ignition, and the engines larger than that were fitted with make-and-break ignition fitted with the company's own igniter, however jump-spark ignition was also available as an option. The T & M Company is listed as a charter member of the National Association of Engine and Boat Builders, which organized the first New York Boat Show (and the first boat show in the United States) in 1904. Traditionally held in January of each year, T & M / Universal has had an exhibit every year the show has been held. In 1906 T & M began to build engine driven farm lighting plants and pumps, as well as marine engines, which won them (and therefore later the Universal Motor Company) the distinction of producing the first production gasoline engine powered generating sets in the world.

In 1906 Fahrney donated the "Fahrney Trophy" to the Oshkosh Power Boat Club for their annual race, and in 1908 the 40 hp Termatt & Monahan powered Pioneer won the race… the only finisher after 10 hours and 100 miles of racing.

By 1911 T&M were building engines from 2 to 120 hp. The smaller engines were fitted with copper water jackets around the cast iron cylinders, and crankshaft housings made of aluminum. The 1911 4 cylinder model had 36 hp and weighed 550 lb.

Fahrney, Monahan, and Termatt sold the T & M Company in 1910, however in 1912 the same 3 men started the Badger Motor Company and began to manufacture a 4 stroke, 4 cylinder air cooled L head (side valve) engine with a displacement of 1132 cc (65.3 mm bore X 88.9 mm stroke) producing 5.25 kW (7 hp) at 1,000 rpm, and fitted with a magneto ignition (henceforth referred to as the Model B). This engine was originally air cooled, but was converted to water cooling (hopper type) in 1914. Sales of the engine increased rapidly, and in 1913 the company was reorganized and the marine engine division was incorporated as the Universal Motor Company Inc., with a factory located on Ceape St. in Oshkosh.

The T & M Company continued to manufacture stationery engines for farm use, but declared bankruptcy in 1917. The complicated relationship between the T & M Company, the Badger Motor Company, and the Universal Motor Company is unclear. There is a reference to the Universal Manufacturing Company of Oshkosh taking over the Badger Manufacturing Company of Oshkosh in early 1915. In any event, the basic design of the Termatt & Monahan Company / T & M Company / Badger Motor Company / Universal Motor Company Model B motor was passed on to the engines later built by the Universal Motor Company (including the Atomic Four engine released over 30 years later).

In 1914 the new Universal Motor Company received a substantial order for the Model B engine from the Wood (or Woods) Company of Chicago, Illinois, for use in the Mobilette automobile which they planned to build in their factory at Harvey, Illinois. (The design and / or production of the Wood's Mobilette were also connected to England and France in some way.). The Mobilette was probably the first cycle car built in the United States. A cycle car is a light, 2-seat automobile with motorcycle wood or wire wheels. Its simple design allowed it to also be sold as a kit, sometimes by mail order, because it could be assembled in any garage or farm workshop. The Mobilette was also being manufactured in England (and France??) by 1913, although before then similar vehicles were already being built in Europe by European automobile

manufacturers such as Peugeot and Bugatti. The early European models used a chain, belt, or friction disk drive, however the later American version used a more sophisticated 2-speed sliding gear transmission and a shaft and bevel drive. The suspension design incorporated half-elliptic springs on the front and full-elliptic springs on the rear. The first Model B engines delivered to the Wood factory were air cooled, but late in 1914 Universal began delivering the water-cooled version. The Model B engine was priced at $US150. Production of the Mobilette stopped in 1915 (or possibly 1916 or 1917), although the Wood Company was still in business until 1919. The company was formed in 1899, and built electric cars and power plants as well as automobiles.

In 1915 the water cooled Model B engine used in the Wood's Mobilette was redesigned for marine service and designated the Universal Model C.

In 1916 the Model C was modified to run with a radiator for industrial service, and designated the Universal Model D. It was commonly used to power cement mixers. The Model D engine was also available with a 3 kW or 5 kW DC (direct current) generator. The Model D with 3 kW generator was priced at $US298. In 1917 the United States entered World War I, and over the next 2 years the American government purchased approximately 2,000 Universal generator sets for use by the United States army.

In 1919 the Universal Products Company of Sandusky, Ohio advertised a home light plant outfit featuring a water cooled engine and direct connected generator. The controls were semi-automatic, and although the machine had to be started manually it shut down automatically once the batteries were charged.

Around the same time the Universal Machine Company of Toledo, Ohio was manufacturing 4 cycle marine engines under the trade name "Toledo".

In 1920 the Universal Products Company of 428 Nebraska St., Oshkosh, Wisconsin was manufacturing 4 cycle marine engines and generators, including a 1 kW home lighting plant with a single cylinder 2.8 hp engine for $495.00USD under the trade name "Doman". It featured a direct connected generator, semi-automatic starting, and a centrifugal governor. In 1924 the same company was advertising the "Upco Light", which was powered by a small vertical air-cooled engine and sold for $US249. In September 1927 the United States Motor Corporation of Oshkosh took over the company and began selling engines under the trade name "US Falcon".

The Universal Products Company of Sandusky, Ohio, and the Universal Products Company of Oshkosh, Wisconsin may have been the same company, and one or both may have had some connection to the Universal Motor Company.

By 1923 the Universal Motor Company was manufacturing marine motors, industrial engines, engine driven lighting plants (generators), engine driven pumps, and engine driven electric welders. Universal engines were even being used to open the locks of the Panama Canal.
In 1923 Universal standardized on right hand propeller rotation for their marine engines, except for engines built to use a left hand propeller and designated as such with special model numbers.

The 4 cylinder Model C marine engine first introduced in 1915 was still being produced in 1923… by then designated the model C3. It had a brass water pump running off the back of the camshaft, a brass carburetor, a Dixie magneto with brass covers, Rentz brass top plugs, and was fitted with an “in and out” gearbox.

In 1924 Mr. Termatt became president of the Universal Motor Company and the Universal Model K series of 4 cylinder industrial engines was developed for use in powering generators and pumps.

The DC (direct current) generators fitted to the generator sets were changed to AC (alternating current) types, and a new 4 cylinder marine engine designated the Model N was developed to replace the Model C.

Universal used the trade names “Bull Dog” and “Universal” on their engines. There is little information on the Bull Dog models.

Universal Rules the Waves

In 1926 Mr. Termaat resigned, and Horner Fahrney became president. Under his direction the Universal product line was expanded and a 4 cylinder, 149.3 cu in, 37 kW / 50 hp @ 3,000 rpm marine engine called the Super Four 4 cylinder inline – Model LSG (6 volt generator) / LSGR (2.28:1 reduction gear, left hand propeller rotation) LSGM (magneto?) / LSGMR (magneto?, reduction gear) was introduced. It was advertised as “a great model for cruisers, runabouts, fishing boats” and was available with or without a “Universal built-in reduction drive”. The Super Four was still in production in 1948. Starting in 1928 it was fitted with 2 carburetors, which increased power output to 55 hp.

In 1928 the Universal Motor Company’s first 6 cylinder engine was introduced. Designated the Victory Six (model designation VH) it had a displacement of 260 cu. in. and was fitted with Stromberg 0-3 carburetors (discontinued in the late 1930s). The Victory Six produced 70 hp at 3,000 rpm. It was only manufactured in 1928, and then discontinued.

The original plant on Ceape St. in Oshkosh was increased in size 3 times over the years, until in 1927 the company’s 1552 Harrison St. plant was constructed. The Harrison St. plant had a floor area of 66,000 sq ft and employed 250 staff. It was equipped with the latest machine tools, as well as 2 Sprague electric dynomometers. Their 1947 address was displayed in Universal advertisements as 317 Universal Drive, Oshkosh, which may have been a separate advertising or sales office.

Universal lighting plants were fitted in the ship used by US Navy Admiral Richard Byrd on his first expedition to the Antarctic in 1929, and in the US Navy dirigibles Akron (built in 1931 crashed in 1933) and Macon (built in 1933 crashed in 1934).

In 19?? the Fisherman (Model WM / WMG / WMGR) 1 cylinder / 67.6 cu in / 8 hp @ 1,200 rpm was introduced. This engine was fitted with a splash lubrication system, and a “Cuno Timer” ignition. The Cuno Timer was an aftermarket contact breaker / condenser ignition module which was fitted by several engine

manufacturers instead of magneto ignition. The Fisherman was still listed in the 1940 catalogue, and is listed in other sources in 1948.

In 1930 the Blue Jacket 4 – Model ?? was introduced.

In 1933 the Blue Jacket 4 was redesigned and renamed the Model FA (direct drive) / FAR (reduction drive).

Also in 1933 the Blue Jacket line was expanded with the addition of the Blue Jacket Twin, a 2 cylinder inline, 10 hp @ 2,000 rpm, 49.5 cu in / 12 hp – Model AFT (magneto) / AFTL (6 volt generator), and a 6 cylinder model called the Blue Jacket Six, 6 cylinder inline L head 60 hp – Model AMS (direct drive) / AMSR (reduction drive).

Later a redesigned Blue Jacket Twin with 12 hp was introduced. It was the same 49.5 cu in engine upgraded to 12 hp, with the same model numbers (AFT / AFTL) as the earlier 10 hp version.

A new 4 cylinder engine called the Blue Jacket Racer – Model AD (direct drive), 99 cu in, 52 hp @ 4,500 rpm, was still in production in 1940.

A larger Blue Jacket Racer (Model BR), 129.9 cu in, 75 hp @ 4,500 rpm was built around the same time. All Blue Jacket engines except the Model AD were still in production in 1947.

In 1933 another 4 cylinder engine called the Utility Four (Model BN – 6 volt generator / BNM – magneto / BNR – 6 volt generator, left hand propeller rotation / BNMR – magneto, left-hand propeller rotation) was introduced. The Utility Four was a 4 cylinder inline / 95 cu in model which developed 25 hp @ 2,500 rpm, and was designed for “cruisers, runabouts, and auxiliaries up to 45 feet”. In 1939 a new “shortened” version of the Utility Four was introduced at a cost of $333.00USD. 2,700 Utility Fours were built between 1933 and 1940. The marine reversing gear fitted to this engine was a Joes Gears, manufactured by the Snow & Petrelli Manufacturing Company in New Haven, Connecticut. The Utility Four was advertised at the 1940 New York Boat Show as having been used as the auxiliary engine in the 36 foot yawl Iris on a voyage from New York to Naples and return in the summer of 1939. 12,000 Utility Four engines were purchased by the US navy and other countries from 1943 to 1950 for use in lifeboats. The Utility Four was used extensively all over the world during World War 2 to power lifeboats for the ships, barges, and tankers of many navies and merchant marine fleets.

In 1935 Horner Fahrney died, and Ralph G. Kleiforth, who had been General Manager since 1933, purchased the company.

In 19?? the Super 8 model brought out in 1927 was discontinued.

A Universal engine was fitted to drive the generator on the ship used by the British-Canadian Arctic Expedition during their expedition to the north magnetic pole in 1936. (Between 1936 and 1940, the British-Canadian Arctic Expedition completed most of the geographical investigation of Foxe Basin in what is now Nunavut.)

The Cruiser Eight 8-347, (Model GCE / GCER), 8 cylinder 347 cu in, 110 hp (later 125 hp) @ 3,000 rpm was introduced in 1931, and produced at least until 1936.

The Cruiser Six (Model HCS / HCSR), 6 cylinder 260 cu in, 90 hp @ 3,000 rpm, reduction gear optional, was in production by 1937. It was listed in the 1939 catalogue at a price of $US745, the same year it and the Cruiser Eight were first available with an optional new “double ignition system”.

In 19?? the first Flexifour (Model FAM / FA / FAMR / FAR), 40 hp @ 3,500 rpm 4 cylinder engine was introduced. The Flexifour was still listed in the 1945 catalogue. Later versions of the original Flexifour were smaller and lighter than the original design.

In 1939 the Universal Retractable Drive was introduced. It was a retractable lower unit similar to an outboard lower unit mounted on a geared lifting rack which allowed it to be retracted vertically up into the hull, and was designed to allow fishing boats to pass over seine nets without fouling them on the propeller.

All 1939 Universal engines were painted Universal green. In that year “aluminum equipment offering a third reduction in weight”, fuel oil/kerosene models of the Fisherman and Utility Four, and all-brass carburetors were options. Opposite rotation engines were available at no extra cost when purchased in pairs (for twin engine boats).

The Economy Four (Model ECO / ECOL), 25 hp @ 2,500 rpm was listed in the 1940 catalogue. Similar to the Utility Four in size, it was based on the Utility Four, but was lighter and cheaper because it was not fitted with a marine reverse gear or an electric starter.

The All American Six (Model AMS / AMSR), 6 cylinder 148.5 cu in, 60 hp @ 3,500 rpm was listed in the 1940 catalogue, and was produced until at least 1951.

The Sea Lion Six 6-260, (Model LHS / LHSR), 6 cylinder 260 cu in (Packard, Chrysler, Buick ?), 110 hp @ 3,400 rpm was introduced in 1940. This engine was based on the Cruiser Six, but was fitted with a larger manifold and carburetor that produced an extra 20 hp and 400 rpm.
The Sea Lion Eight, (Model LCE / LCER), 8 cylinder 347 cu in, 141 hp @ 3,400 rpm was introduced in 1940. This engine was based on the Cruiser Eight, but was fitted with a larger manifold and twin carburettors to produce an extra 16 hp and 400 rpm.

Several Universal models were adapted for use by the US government during World War 2 and used to power on-board marine water distilleries which converted salt water into fresh drinking water, and to power pumps for loading and unloading barges holding high-octane aviation fuel. Universal engines were supplied to the Mexican, Russian, and Cuban navies as well as to the US army and navy.

The Model M3000-MS, a 2 cylinder marine lighting plant based on the Bluejacket Twin, was listed in the 1947 catalogue.

The Model M?000-M, 4 cylinder marine lighting plant, was listed in the 1947 catalogue.
The Model 15000, 20000, and 25000 Watt (HCS-IND), AMS, 12500W (AFS-IND), BFA, 6000W, 9000W 6 cylinder lighting plants were listed in the 1947 catalogue.

Universal Motor Company advertisements in Rudder magazine circa 1947 proclaimed that “Universal Sales and Service are Everywhere – Coast to Coast… and Around the World”, “Above All – Dependable”, “World’s Largest Builders of 100% Marine Motors”, and “Universal 100% Marine Motors”.

The Unimite Four: 4 cylinder inline / 141 cu in / 70 hp – Model HF (6 volt generator, direct drive) / HFR (6 volt generator, 2:1 reduction gear) / HFVD (6 volt generator, V drive, 1:1, 1.29:1, 1.67:1, 2:1 reduction gear options) was introduced in 19??, and still available in 1955. The Unimite Four was a marinized version of the Hercules IXA and/or IXB 4 cylinder engine. Parts were available for this engine until 1996.

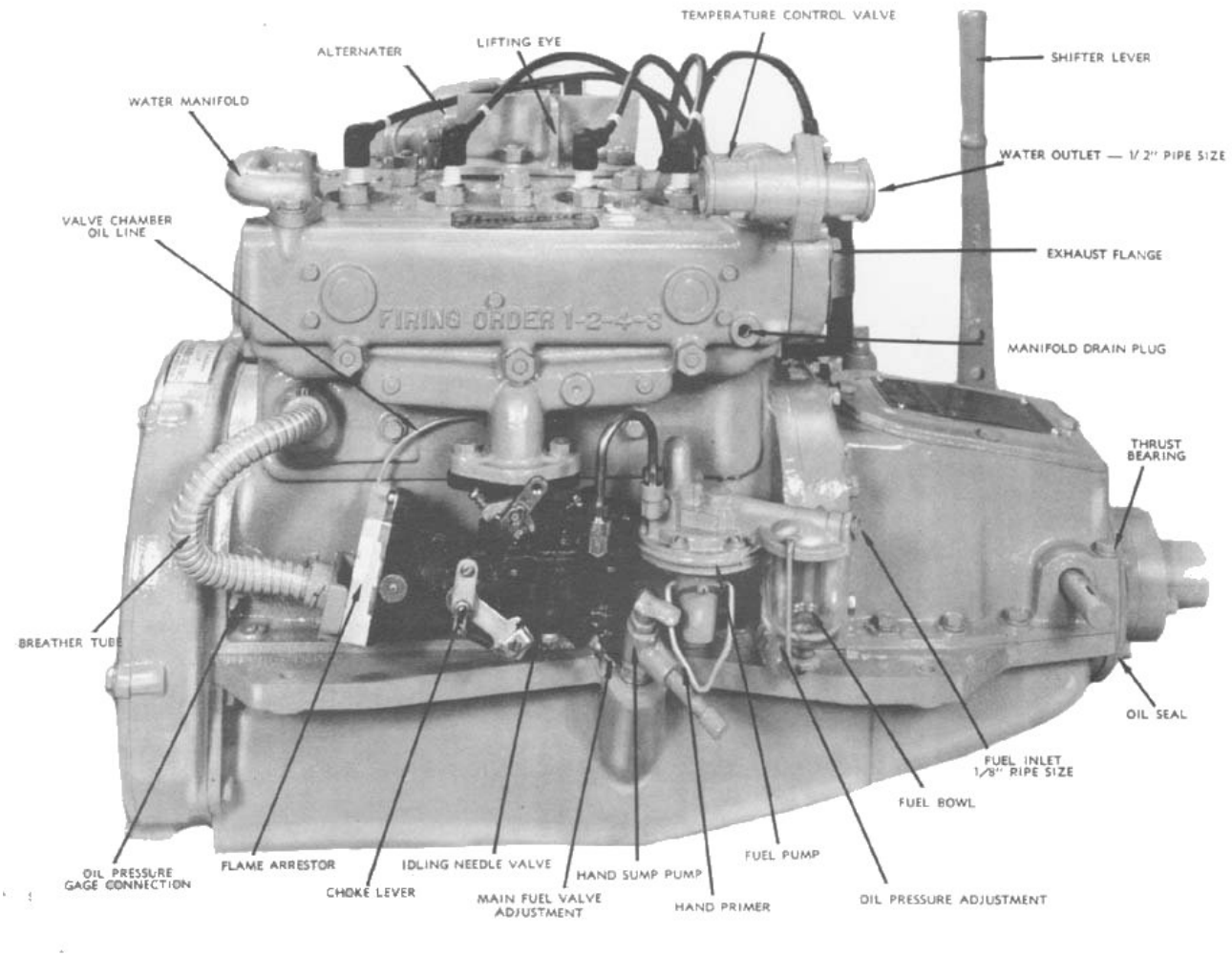
The Arrow 6 cylinder inline / 230 cu in / 100 hp – Model 230 (direct drive) / 231 (1.88:1 reduction gear) / 232 (2.44:1 reduction gear) / 233 (3.32:1 reduction gear) / 234 (4.12:1 reduction gear) was introduced in 19?? The Bluefin 6 cylinder inline / 230 cu in / 113 hp – Model SY230 (direct drive) / SY231 (1.5:1 reduction gear) / SY232 (2:1 reduction gear) / SY230P (direct drive, hydraulic reverse gear) / SY231P (1.5:1 reduction gear, hydraulic reverse gear) / SY232P (2:1 reduction gear, hydraulic reverse gear) / VSY230P (hydraulic reverse gear, V drive, 1:1, 1.5:1, 2:1 reduction gear options) was introduced in 19?? The Bullet: 6 cylinder inline / 240 cu in was introduced in 19??. The Arrow, Bluefin, and Bullet were marinized versions of the Hercules QXD3 6 cylinder engine.

The Marlin: 6 cylinder inline / 320 cu in / 110 hp – Model 320 (direct drive) / 321 (1.88:1 reduction gear) / 322 (2.44:1 reduction gear) / 323 (3.32:1 reduction gear) / 324 (4.12:1 reduction gear) was introduced in 19??

The Tarpon: 6 cylinder inline / 320 cu in / 140 hp – Model Y330 (direct drive, manual reverse gear) / Y330P (direct drive, hydraulic reverse gear) / Y331P (1.5:1 reduction gear, hydraulic reverse gear) / Y332P (2:1 reduction gear, hydraulic reverse gear) / Y333P (2.5:1 reduction gear, hydraulic reverse gear) / 330 (direct drive, 1 1/4" coupling) was introduced in 19??

The Knight 6 cylinder inline / 340 cu in / 165 hp – Model Y350 was introduced in 19??. The Marlin, Tarpon, and Knight were marinized versions of the Hercules JXD 6 cylinder engine.

The Atomic Four



In 1947 (or 1945?) the Atomic Four was introduced. It was a 4 cylinder inline / 1 litre (64.46 cu. in.) / 30 hp engine, Model UJ – 5101 (direct drive) / UJR – 5102 (2:1 reduction gear) / UJVD – 5103 (V drive, 1:1, 1.29:1, 1.67:1, 2:1 reduction gear options) L head (flat head) engine incorporating an integral reverse gear, with roots stretching back to the earliest Universal 4 cylinder engines. It was not a modified Jeep or Farmall tractor engine (the early military and civilian Jeep engine was a 4 cylinder, L head design like the Atomic Four, but it was twice the size of the Atomic Four at 2.2 litres (134 cu. in.) and had 3 main bearings – the Atomic Four has 2. In 1953 Jeep switched to an F head engine) and if anything was based on the successful Utility Four life boat engine. Sales of the Atomic Four grew strongly after 1955 as the recreational sailboat market expanded.

All Atomic Four engines were fitted with Paragon marine reverse gears, and were also available with an optional Paragon reduction gear assembly or Walter V drive assembly mounted on the end of the reverse gear. Paragon reverse gears and reduction drives were built at the Paragon Gear Works factory in Taunton, Massachusetts. Walter V drives were built by the Walter Machine Company in Jersey City, New Jersey. They were available in several different ratios. When a reduction drive or V drive is fitted the Paragon reverse gear requires a different final output drive shaft than the one fitted to direct drive model.

The Walter V drive has a V angle of 22 degrees, which means it is hard to replace a V drive Atomic Four with a Kubota or Yanmar based V drive diesel engine because most common V drives sold with diesels (ie

Hurth) have a V angle of 15 degrees. The difference in V angle necessitates extensive modification of engine mounts, stern tube, and rear propeller shaft support strut in order to mount the new engine at the correct angle.

Most Universal engine parts were cast in-house at the Universal Foundry building near the factory, which was torn down in 2000. Engine parts cast at the foundry are marked with the cast-in foundry mark “UF” (for “Universal Foundry”) as well as a cast-in engine code and part mould number (ie the Atomic Four engine code is “UJ”, and the Atomic Four cylinder head mould number is “2”… so Atomic Four cylinder heads have a cast-in “UJ-2”.

Universal used a Prestolite distributor, coil, generator, regulator, and starter on the Atomic Four until 1967 (initially 6 volt and later 12 volt), and in 1968 began using 12 volt Delco Remy ignition / starter components and Motorola alternator on the upgraded version released that year. The Prestolite starter has a different bendix gear / ring gear tooth pitch than the Delco starter bendix gear / ring gear, which means that the newer Delco starter cannot be fitted without also changing the ring gear. The Delco ring gear diameter is .5" wider than the Prestolite part, and so the flywheel housing casting must also be changed or machined to accommodate the larger Delco ring gear.

The new version had a new cylinder head design which incorporated a full flow bypass thermostat housing, a modified lubrication system, and upgraded valves / valve followers / valve springs. Many minor design changes were made to the Atomic Four over the 37 years it was in production.

A special Canadian version of the Atomic Four was produced for several years starting in 1975?. Called the Stevedore (Model UJS – 5111 (direct drive), Model UJSR – 5112 (reduction drive), Model UJVD – 5113 (V drive), it was exactly the same as an Atomic Four except it had a restrictor in the intake manifold which limited maximum power to 13.8 kW / 18.5 hp at 3,000 rpm, and different carburettor jets. The Stevedore was intended to comply with a Canadian federal or provincial regulation (possibly the province of Ontario, where the Canadian sail boat industry was centred) regarding maximum horsepower, or to gain a tax, insurance, or import duty advantage. The Atomic Four produces 22.3 kW / 30 hp at 3,500 rpm, however the Atomic Four and the Stevedore produce nearly identical power (approximately 11 kW / 15 hp) at a typical sailboat engine maximum speed of 2,000 rpm.

The price of a new Atomic Four in 1976 was us$1,970.00 FOB Oshkosh, Wisconsin. Approximately 40,000 Atomic Four engines were sold between 1947 and 1984, with an estimated 20,000 still in use in 1998. Paint colors available for the Atomic Four in 1960 were listed in the parts manual as green, aqua-blue, epoxy tan, and copper metallic, but by 1970 the only color available for the Atomic Four was copper metallic, which was the color most engines were painted.

The Nash and Medalist Years

In 1956 Universal purchased the gasoline engine division of the Nordberg Manufacturing Co. of Milwaukee Wisconsin. Nordberg manufactured a line of 6 cylinder engines: the 230 cu. in. 90 hp Model 230, the 320 cu. in 103 hp Model 320, and the 340 cu. in. 135 hp Model 340.

All Nordberg engines were fitted with a Nordberg designed and manufactured marine gear and reduction gear. In 1957 Universal advertised the Nordberg line as the “Universal Motor Company – Nordberg Gasoline Engine Division”, and listed 7 models from 60 hp to the 100 hp Nordberg Arrow (the same engine was sold as the Universal Explorer Six), and 155 hp Nordberg Knight.

The Nordberg 6 cylinder engine was a more advanced design than the Bluejacket 6 being built by Universal, so the next year the Bluejacket 6 was dropped, and in 1958 Universal began selling the Nordberg engines under the name Norseman, including a new model called the Norseman 240, model designation Y240P. Norseman engines were built until 1965, when materials became so expensive that Universal could not compete with the V8 conversion engines being offered by the competition and discontinued the whole line.

In 1957 Universal was proud of the fact that more electric power and light plants had been added to its line during 1956 than in any previous year. Included in the products being manufactured by Universal were a dozen air-cooled four-cycle portable generating sets with 5 starting options: manual, electric starter, remote, automatic, and automatic standby. Single cylinder units included the 450 watt 08-B and 08-ES (electric start); the 650 watt 012-B and 012-ES; the 700 watt 011-B and 011-ES; the 800 watt 014-B, 014-ES, 014-BR (12 volt remote), 014-BA (12 volt automatic), and 014-M (manual start DC version); the 1,200 watt 21-B, 21-ES, and 21-BR; 1,500 watt 20-B, 20-ES, 20-BR, 20-BA, and 20-M; 2,200 watt 41-B, 41-ES, 41-BR, 41-M, 42-B, 42-ES, 42-BR, 42-BA, and 42-M; the 3,500 watt 71-B, 71-ES, and 71-BR, and the 3,800 watt 70-B, 70-ES, and 70-BR… a total of 34 models.

All models in the 5,500 watt 2 cylinder series – the 102-B, 102-BH, 102-BL, and the 102-BW – had manual starting, with electric and remote variations available. Remote control was optional as an alternative to the standard electric starting with the 4 cylinder units in the 10,000 – 12,000 watt category; the 210-B, 210-BH, 210-BL, 210-BW.

The existing line of gasoline generators, designed for below-deck installation and ranging in size from 250 watts to 6,000 watts AC and DC, was augmented with a new line of water-cooled gasoline and diesel generators – the gasoline line included generators from 5,000 watts (5 Kw) to 35,000 watts (35 Kw), and the diesel line included generators from 10,000 watts (10 Kw) to 35,000 watts (35 Kw).

By 1957 there were 4 models of Universal marine engines available with Walter V drives. Designated “Aqua-paks”, they were available with the Universal Utility Four, Unimite Four, Explorer Six, and Super Six Commodore engines.

Also available in 1957 were 7 six cylinder engines: the 60 hp Bluejacket Six, 90 hp Cruiser Six, 100 hp Explorer Six – Model OK, 110 hp Master Six, 110 hp Sea Lion Six, 130 hp Super Six Stevedore, and 145 hp Super Six Commodore. 5 four cylinder models were available: the 25 hp Utility Four, 30 hp Atomic Four, 45 hp Flexifour, 50 hp Super Four, and 65 hp Unimite Four. Still available was the single cylinder 8 hp Fisherman, and the twin cylinder Blue Jacket Twin. In 1957 Universal introduced a new 18 month free parts replacement warranty.

The Explorer Six – Model OK was a 6 cylinder, 100 hp @ 3,200 rpm engine built on a 230 cu in Chrysler side-valve ("L" head) block. It was fitted with a single barrel updraft Carter carburetor, a Delco 6 volt starter, and a Paragon reversing gear.

The Universal Stratoking – Model SEVH20 was a V8, 215 hp at 4,000 rpm engine built from a 327 cu in GM block. It was built by Chris Craft for Universal with only with minor changes. Chris Craft called the same engine a Chris Craft Model "Q".

In 1958 several models of small centrifugal pumps were added to the Universal product line under the name Universal Aquamaster.

By 1960 growing Atomic Four sales had effected sales of the Bluejacket Twin and the Utility Four, and they were finally discontinued that year.

In 1961 Mr. Kleiforth sold Universal to the J.M. Nash Co, and Mr. W.R. (Bill) Murphy was appointed General Manager of the Universal Motor Division.

In 1963 the Sabre V6 (a Buick V6 conversion) was added to the Universal marine engine line, aimed at the inboard/outboard market. It had a displacement of 198 cu in, and was rated at 140 hp. This model was renamed the Super Sabre V6 (Model DX) in 1965 after an engine redesign by Buick. The Super Sabre had a displacement of 225 cu in, and produced 155 hp.

From 1965 to 1975 Universal had about 80% of the sailboat market. Universal engines, nearly all Atomic Fours, were fitted to sailboats from 7.6 metres / 25 feet to 12 metres / 41 feet.

During this period the 1 cylinder 18 cu in / 5 hp Atomic One (model AM) and the 2 cylinder 33 cu in / 10 hp Atomic Two, Model 5610 were also sold as small sailboat auxiliaries to take advantage of the sales appeal of the "Atomic" name. Although these engines were similar to the older Fisherman and Blue Jacket Twin models respectively, they were smaller engines. The Atomic One was actually a Kermath Sea Pup… block cast by Kermath, not Hercules, and the Atomic Two was actually a Kermath Sea Twin, which used a Hercules block.

In 1967 the corporate name was changed from J.M. Nash Co. to Medalist Industries and thus Universal became a division of Medalist Industries.

In 1968 the V6 series was discontinued when Volvo suddenly refused to sell Universal any more inboard-outboard drive units because they had sold their entire production run to the Chrysler Corporation. At that time 80% of Universal's sales consisted of Super Sabre V6 inboard engines with Volvo outboard units, and so Universal lost 80% of its business.

In 1968 Universal purchased the Nordberg Power Chief line of heavy duty diesel engines from Caysco Inc. of Washington DC. Nordberg diesel engine models included a 10 hp 1 cylinder (Model 4FS1), and a ?? hp 2

cylinder engine (Model 4FS2) which was introduced in 1951. The Model 4FS2l was available with a 15 to 20 kW generator.

In 1970's Medalist Industries moved the rest of their operations to the Universal factory at 1552 Harrison St. in Oshkosh.

In January 1970 Bill Murphy was assigned to other duties in the Medalist organisation, and Medalist employee Jerry Watson was given the additional duty of Managing the Universal Motor Division. Under his direction the pump line was expanded, with the addition of a complete line of electric motor powered pumps, including a stand pipe sump pump, a submersible sump pump, and a diaphragm pump.

In the 1970's a small portable battery charger was introduced. It was simply an automotive alternator driven by a small engine, possibly a Briggs and Stratton or Clinton.

Canadian Universal dealers in 1975 included:

H&H Marine Engine Service, Vancouver, BC
False Creek Yacht Service, Vancouver, BC
Harbour Machine, Victoria, BC
Interior Twin Anchors, Sicamous, BC
Richardson's Marine, Nanaimo, BC
Shlegel's Yacht Service, North Vancouver, BC
Sidney Propeller, Sidney, BC
Southcoast Marine, Burnaby, BC
The Yacht Shop / Scotia Trawler Equipment, Lunenburg, NS
Nauticus Marine, Armdale, NS
(Note: there were other dealers in Ontario and Quebec, and probably New Brunswick and Newfoundland, whose names I'm having trouble locating)

Many Vancouver boaters had their Universal engines repaired by ? Chappell, who had a garage behind his house in the Kitsilano area of Vancouver during the 1950s, 60s, and 70s. Chappell had been trained in diesel mechanics in Germany before World War II, and his father had been a marine mechanic with a shop in the South Creek area of Vancouver before World War I. Another well-known Vancouver marine mechanic in the 1970s was Harold Hatch… the "H" in H&H Marine Engine Service, which is still in business as Marine Engine Service owned by Peter Chong.

American Universal dealers in 1975 included:

Sintes Boat Works, New Orleans, LA, USA
Boatswain's Locker Inc, Newport Beach, CA, USA
Bill's Marine Service, Seal Beach, CA, USA
Ala Wai Marine, Honolulu, Hawaii, USA
(Note: and many more that I do not have reference to.)

Other dealers were:

Fajardo Marine, Fajardo, Puerto Rico
Port-O-Call, St. Thomas, US Virgin Islands
Pitts Bay Boat Co. Ltd., Hamilton, Bermuda

In the early 1970's sailboat manufacturers began fitting Yanmar diesel auxiliaries instead of the Atomic Four gasoline auxiliary, however Atomic Four sales continued to grow until their peak year of 1975. In 1976, as sales of the Atomic Four started to drop, Universal met the challenge from Yanmar by buying Kubota diesel engines and selling marinized versions, under the name Universal. Atomic Four sales gradually declined as manufacturers increasingly used diesel engines, and manufacturing ceased in 1980, with sales continuing until all units were sold in 1984. The last OEM (original equipment manufacturer) to fit the Atomic Four was Catalina, who used it up until the 1985 Catalina model year. After 1985 Universal sold only diesel marine engines, which were fitted by several OEM, including Catalina.

The first Universal diesel was advertised in 1976. Designated the Model 5416, it was a 45 cu in, 16 hp, 2 cylinder, based on the Kubota Z-751 block and built from 1976 to 1982. Approximately 1,000 were sold. It was replaced by the Model M20, which was produced in 1982 and 1983. Approximately 230 were sold.

In 1977 the Model 5411 was introduced. It was a 31 cu in, 11 hp 2 cylinder raw water cooled diesel, based on the Kubota Z-500 block, and fitted with a Hurth transmission. The 5411 was built from 1977 to 1982. Approximately 2,900 were sold. It was replaced by the Model M15, which was produced in 1982 and 1983. Approximately 370 were sold.

The Model 5424, a 68 cu in, 24 hp, 3 cylinder, based on the Kubota D-1101 block, was built from 1977 to 1983. Approximately 1,050 were sold. It was replaced by the Model M-30, which was produced from 1983 to 1987. The Model M-30 was the same size, but later M-30 engines were based on the Kubota D-1102 block. It was built from 1983 to 1987. Approximately 400 were sold.

The Model 5421, a 52 cu in, 21 hp, 3 cylinder, based on the Kubota D-850 block, was built from 1978 to 1981. Approximately 1,000 were sold. It was replaced by the Model M25, which was produced from 1981 to 1986. Approximately 3,650 were sold. It in turn was replaced by the Model M-25XP, a 57 cu in, 23 hp, 3 cylinder, based on the Kubota D-950 block, built from 1986 to 1999. Approximately 3,100 were sold. It in turn was replaced by the Model M-25XPB.

The Model 5432, a 91 cu in, 32 hp, 4 cylinder, based on the Kubota V-1501 block, was built from 1978 to 1982. It was also called the Atomic diesel. Approximately 650 were sold. It was replaced by the Model M40, which was produced from 1982 to 1998. The Model M-40 was also a 4 cylinder model, and the same size at 91 cu in and 32 hp but it was based on the Kubota V-1502 block. Approximately 360 were sold.

The Model 5444, a 115 cu in, 44 hp, 4 cylinder, based on the Kubota V-1902 block, was built from 1980 to 1982. Approximately 280 were sold. The Model 5444 was replaced by the Model M50, which was built from 1982 to 1997. Approximately 520 were sold.

The Model M-12, a 24.4 cu in, 10 hp, 2 cylinder based on the Kubota Z-400 block, was built from 1983 to 1988. Approximately 1,200 were sold.

The Model M-18, a 34.8 cu in, 14 hp @ 3,200 rpm, 2 cylinder, based on the Kubota Z-600 block, was built from 1983 to 1988. Approximately 2,400 were sold.

The Model M2-12, a 26 cu in, 11 hp, 2 cylinder, based on the Kubota Z-430 block, was built from 1987 to 1997. Approximately 320 were sold.

The Model M-35, a 75.5 cu in, 30 hp, 4 cylinder, based on the Kubota V-1200 block, was built from 1987 to 1997. Approximately 280 were sold.

The Model M-35B, a 4 cylinder engine producing 22.3 kW / 30 hp at 3,200 rpm, based on the Kubota ?? block, was introduced in 19??.

The Model M3-20, a 38.9 cu in, 18 hp, 3 cylinder, based on the Kubota D-640 block, was built from 1988 to 1997. Approximately 525 were sold.

The Model M3-20B, a 3 cylinder engine producing 13.4 kW / 18 hp at 3,600 rpm , based on the Kubota ?? block, was introduced in 19??.

The Model M4-30, also called the Atomic Four diesel, a 52 cu in, 25 hp, 4 cylinder, based on the Kubota Y-850 block, was built from 1988 to 1997. Approximately 470 were sold. The Model M4-30 was offered as a diesel replacement for the original Atomic Four gasoline engine. It was similar to its namesake, since it was a 4 cylinder model weighing slightly less (122 kg / 270 lb as opposed to the original's 150 kg / 330 lb with reduction drive – the M4-30 was only offered with a reduction drive) and generating slightly less power (18.6 kW / 25 hp at 3,600 rpm as opposed to the original's 22 kW / 30 hp at 3,500 rpm) with a smaller displacement (850 cc / 52 cu in as opposed to the original's 1,065 cc / 65 cu in).

Model M47, based on the the Kubota ?? block, the Kubota block was rebored by Universal to increase the bore, and thus the engine capacity and power output.

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Long time Universal Motor Company employee Richard D. Malnory was hired by Universal on January 3, 1956 and on June 3, 1966 he was promoted to Engineer – Research and Development. On August 15, 1968 he was promoted to General Foreman, and on July 1, 1969 he was promoted to Superintendent. He was Sales and Engineering Manager for Medalist Universal Motors from August 1, 1973 to December 11, 1989, and in late 1989 he reported the market share for diesel auxiliaries as 42% Universal, 45% Yanmar, and 18% Volvo / Westerbeke / Perkins. Mr. Malnory worked as a consultant for Westerbeke Inc of Avon Massachusetts until July 17, 1991, after they purchased the Universal Motor Company on July 17, 1990.

Westerbeke Takes Control

Westerbeke Inc of Avon Massachusetts purchased the Universal Motor Company on July 17, 1990. Westerbeke / Universal dealers continue to sell new Universal marine diesels, and parts for older Universal gas engines, including most Atomic Four parts. Atomic Four blocks and oil pan casting assemblies as well as several transmission components (ie throw-out bearing assemblies) are not available, however most common rebuild and repair parts are, although the prices are very expensive when compared to automotive engine parts.

Universal models available in 1998, the 100 year anniversary of the first Universal motor, were the 3 cylinder M3-20B (20 hp) and M25-XPB (26 hp), and the 4 cylinder M-35B (32 hp) and M-50B (42 hp), all Kubota based light diesels converted to marine specification and fitted with integral heat exchangers and Hurth transmissions.

In late 1999 the model range was expanded with the addition of the 4 cylinder M-40B (37.5 hp).

Over 100 years of producing marine engines the Universal Motor Company pioneered many of the advancements we now take for granted. They were the first to produce engines with large cast full-flow water jackets, the first to fit large water jacket inspection and clean-out plates, the first to develop special metals and materials for production marine engines, the first to build marine engines with integral marine gears, the first to fit oil coolers to marine engines, and the first to build bronze gear marine engine cooling pumps.

From OldMarineEngine.com.

Universal Motor Company Contact Information

Universal Motor Co. **>Purchased by Westerbeke of Avon Massachusetts on July 17, 1990.**
~~Oshkosh, WI~~

Universal Motor Company
4-Stroke Cycle Petrol (Gasoline) Marine Engines
(In Chronological Order±)

TABLE KEY:

⊗ = Data Not Available from Data Source. ? = …? = ¿…? = Data Not Confirmed.

CYL = *Cylinder Configuration-Number*:

^ Cylinder Configuration: u… = Vertical (Upright). S = Single Cylinder. I = In-Line. V = V Pattern (eg V8).

DISPLACEMENT: …cc = Cubic Centimeters (cm³). …L = Liters (Litres). …ci = Cubic Inches (in³).

POWER: kW = Kilowatts. HP = Horsepower.

@RPM = Power Ratings @ Revolutions Per Minute.

YEARS MFR'd: *Beginning-Ending.* Trailing "–" (Dash) without an Ending Date = Still in Production.

Click on Model Links below for individual Model Pages that contain more detailed specifications and other information, plus Data Source Links to Catalogs, Brochures, SpecSheets, Operator's Manuals, Shop Manuals, etc.

MODEL	BASE ENGINE	CYL	DISPLACE	KW	HP	@RPM	YEARS MFR'D
Model A (2sc)	<Fahrney	uS-1	⊗L/⊗ci	⊗	⊗	⊗	1895-1898
^Model A (2sc)	<Termatt&Mon...	uS-1	⊗L/⊗ci	⊗	⊗	⊗	1898-1902
^Model A (2sc)	<T&M Co	uS-1	⊗L/⊗ci	⊗	⊗	⊗	1903-1912+
^Model A (2sc)	<Universal?	uS-1	⊗L/⊗ci	⊗	⊗	⊗	19??-19??
Model B	<Termatt&Mon...	ul-4	1132cc	5.25	7	1000	191?-191?
^Model B	<T&M Co	ul-4	1132cc	5.25	7	1000	1912?-1917?
^Model B	<Badger	ul-4	1132cc	5.25	7	1000	1912-1913
^Model B	<Universal	ul-4	1132cc	5.25	7	1000	1913-1915+
Model C	<Universal	ul-4	1132cc	5.25	7	1000	1915-1924?
Model D (ind)	<Universal	ul-4	1132cc	5.25	7	1000	1916-1924?
Model K (Ind)	<Universal	ul-4	⊗L/⊗ci	⊗	⊗	⊗	1924-19??
Model N	<Universal	ul-4	⊗L/⊗ci	⊗	⊗	⊗	1924-19??
Super Four	<Universal	ul-4	149.3ci	37	50+	3000	1926-1928+?
Super Six Stevedore	<Universal	ul-6	⊗L/⊗ci	⊗	130	⊗	1927?-1957?
Super Six Commodore	<Universal	ul-6	⊗L/⊗ci	⊗	145	⊗	1927?-1957?
Super 8	<Universal	ul-8	⊗L/⊗ci	⊗	⊗	⊗	1927-19??
Victory Six	<Universal	ul-6	260ci	⊗	70	3000	1928-1930?
Fisherman	<Universal	uS-1	67.6ci	⊗	8	1200	19??-1957?
Blue Jacket 4	<Universal	ul-4	⊗L/⊗ci	⊗	⊗	⊗	1930-1947+?
Blue Jacket Twin	<Universal	ul-2	49.5ci	⊗	10	2000	1933-1960
Blue Jacket Six	<Universal	ul-6	⊗L/⊗ci	⊗	60+	⊗	1933-1957?
Blue Jacket Racer (AD)	<Universal	ul-4	99ci	⊗	52	4500	19??-1940+?
Blue Jacket Racer (BR)	<Universal	ul-4	129.9ci	⊗	75	4500	19??-1947+?

MODEL	BASE ENGINE	CYL	DISPLACE	KW	HP	@RPM	YEARS MFR'D
Utility Four	<Universal	ul-4	95ci	⊗	25	2500	1933-1960
Economy Four	<Universal	ul-4	95ci	⊗	25	2500	1940?-19??
Cruiser 8	<Universal	ul-8	347ci	⊗	110+	3000	1931-1936+?
Cruiser Six	<Universal	ul-6	260ci	⊗	90	3000	1937?-1957?
Flexifour (NF)	<Universal	ul-4	⊗L/⊗ci	⊗	40	3500	193?-1945+?
Flexifour (FA)	<Universal	ul-4	⊗L/⊗ci	⊗	40	3500	193?-1945+?
All American Six	<Universal	ul-6	148.5ci	⊗	60	3500	1940?-1951+?
Master Six	<Universal	ul-6	260ci	⊗	110	3400	1940-19??
Sea Lion Six	<Universal	ul-6	260ci	⊗	110	3400	1940-19??
Sea Lion Eight	<Universal	ul-8	347ci	⊗	141	3400	1940-19??
Unimite Four	Hercules IXA&B	ul-4	141ci	⊗	70	⊗	19??-1955+?
Arrow 6	Hercules QXD3	ul-6	230ci	⊗	100	⊗	19??-19??
Bluefin 6	Hercules QXD3	ul-6	230ci	⊗	113	⊗	19??-19??
Bullet 6	Hercules QXD3	ul-6	240ci	⊗	⊗	⊗	19??-19??
Marlin	Hercules JXD	ul-6	320ci	⊗	110	⊗	19??-19??
Tarpon	Hercules JXD	ul-6	320ci	⊗	140	⊗	19??-19??
Knight	Hercules JXD	ul-6	340ci	⊗	165	⊗	19??-19??
Atomic 4	<Universal UJ	ul-4	1L / 64.46ci	22.3	30	3500	1945-1984
Stevedore	<Universal UJS	ul-4	1L / 64.46ci	13.8	18.5	3000	1975?-1984?
Explorer Six	Chrysler 230	ul-6	230ci	⊗	100	3200	1957?-1960?
Nordburg Arrow	Nordburg 230	ul-6	230ci	⊗	60+	⊗	1957-1958?
Explorer Six	Nordburg 230	ul-6	230ci	⊗	100+	⊗	1957?-1960?
Nordburg Knight	Nordburg 230	ul-6	230ci	⊗	155	⊗	1957?-1958?
Norseman 230	Nordburg 230	ul-6	230ci	⊗	⊗	⊗	1958-1965
Nordburg 320	Nordburg 320	ul-6	320ci	⊗	103	⊗	1957-1958?
Nordburg 340	Nordburg 340	ul-6	340ci	⊗	135	⊗	1957-1958?
Nordburg 240	Nordburg 240	ul-6	240ci	⊗	⊗	⊗	1958-1965?

MODEL	BASE ENGINE	CYL	DISPLACE	KW	HP	@RPM	YEARS MFR'D
Little King	GM 283	V-8	283ci	⊗	188	⊗	19??-19??
StratoKing 327	GM 327	V-8	327ci	⊗	215	⊗	19??-19??
StratoKing 350	GM 350	V-8	350ci	⊗	⊗	⊗	19??-19??
Big King	GM? 430	V-8	430ci	⊗	277	⊗	19??-19??
Sabre V6	Buick 198 V6	V-6	198ci	⊗	140	⊗	1963-1964
Super Sabre V6	Buick 225 V6	V-6	225ci	⊗	155	⊗	1965-1968
Atomic One	Kermath Sea Pup	uS-1	18ci	⊗	5	⊗	1965-1975?
Atomic Two	Kermath Sea Twin	uI-2	33ci	⊗	10	⊗	1965-1975?
⊗	⊗	⊗-⊗	⊗L / ⊗ci	⊗	⊗	⊗	19??-19??

NOTES:

Table Under Development

If you can help us add brand information, Spec Sheets, Manuals, etc. that we lack, please submit the link or PDF to Editor@AbsolutelyEverythingAboutBoats.com. Thanks!

Unidentified Models

IF YOU HAVE ANY INFORMATION OR PHOTOS OF THESE ENGINES PLEASE LET US KNOW with an email to the Editor@AbsolutelyEverythingAboutBoats.com. Thanks!

MODEL
6-75
6-85 (1929) M (with IHC engine)
125 BR (with IHC engine) M
125 BR
AB4
AB6

MODEL
AB
ACS: 6 cylinder
AF-IND: 6 cylinder
AFR: 4 cylinder
AR: 4 cylinder
Atomic 3
BFA: 4 cylinder
CE
Colt
Elf
Master Super 6 cylinder
OL: 6 cylinder
Sheppard
Z-Drive? based on the Sheppard engine
KN light plant

Table Under Development

If you can help us add brand information, Spec Sheets, Manuals, etc. that we lack, please submit the link or PDF to Editor@AbsolutelyEverythingAboutBoats.com. Thanks!

Universal Motor Company
4-Stroke Cycle Diesel Marine Engines
Including Other Marinized Versions & Generators
(by Ascending Horsepower± & Year)

TABLE KEY:

⊗ = Data Not Available from Data Source. ? = …? = ¿…? = Data Not Confirmed.

CYL = *Cylinder Configuration-Number*:

^ Cylinder Configuration: u... = Vertical (Upright). S = Single Cylinder. I = In-Line. V = V Pattern (eg V8).

DISPLACEMENT: ...cc = Cubic Centimeters (cm³). ...L = Liters (Litres). ...ci = Cubic Inches (in³).

POWER: kW = Kilowatts. HP = Horsepower. MHP = Metric Horsepower.

@RPM = Power Ratings @ Revolutions Per Minute.

YEARS MFR'd: *Beginning-Ending.* Trailing "–" (Dash) without an Ending Date = Still in Production (BOLD).

Click on Model Links below for individual Model Pages that contain more detailed specifications and model information, plus Data Source Links to Catalogs, Brochures, SpecSheets, Operator's Manuals, Shop Manuals, etc.

MODEL	BASE ENGINE	CYL	DISPLACEMENT	KW*	HP*	MHP*	@RPM	YEARS MFR'D
M-12	Kubota Z400-	ul-2	⊗L / 25ci	⊗	10	⊗	3600	1983-1988
M2-12	Kubota Z430-	ul-2	⊗L / 26ci	8.2	11	⊗	3600	10/87-3/93
M2-12A	Kubota Z430?-	ul-2	⊗L / 26ci	⊗	11	⊗	3600	3/93-3/94
5411–	Kubota Z500-	ul-2	⊗L / 31ci	⊗	11	⊗	3000	1977-1982
M-15	Kubota Z500-	ul-2	⊗L / 31ci	⊗	11	⊗	3000	1982-1983
M-18	Kubota Z600-	ul-2	⊗L / 35ci	⊗	14	⊗	3200	1983-1988
5416	Kubota Z751-	ul-2	⊗L / 45ci	⊗	16	⊗	2800	1976-1982
M-20	Kubota Z751-	ul-2	⊗L / 45ci	⊗	16	⊗	2800	1982-1983
M3-20	Kubota D640-	ul-⊗	⊗L / 38.9ci	13.4	18	⊗	3600	1988-3/93
M3-20A	Kubota D640-	ul-3	⊗L / 38.9ci	13.4	18	⊗	3600	3/93-3/96
M3-20B–	Kubota D722-	ul-3	0.7177L / 43.8ci	15	20	⊗	3600	**3/96-**
M3-20BC	Kubota ⊗	ul-3	⊗L / ⊗ci	⊗	20	⊗	3600	19??-19??
5420	~~Kubota D850-~~	ul-⊗	⊗L / ⊗ci	⊗	⊗	⊗	⊗	1977-1978
5421	Kubota D850-	ul-3	⊗L / 52ci	⊗	21	⊗	3200	1978-1981
M-25	Kubota D850-	ul-3	⊗L / 52ci	⊗	21	⊗	3200	6/81-8/86
M-25XP	Kubota D950-	ul-3	⊗L / 56.6ci	17.1	23	⊗	3200	9/86-3/93
M-25XPA	Kubota D950?-	ul-3	⊗L / 57ci	17.1	23	⊗	3200	3/93-8/96
M-25XPB–	Kubota D1005?-	ul-3	1L / 61.2ci	19	26	⊗	3000	**8/96-**
M-25XPBC	Kubota D1005? ⊗	ul-3	⊗L / ⊗ci	⊗	26	⊗	3000	19??-19??
5424	Kubota D1101-	ul-3	⊗L / 68ci	⊗	24	⊗	2800	1977-1983

MODEL	BASE ENGINE	CYL	DISPLACEMENT	KW*	HP*	MHP*	@RPM	YEARS MFR'D
M-30	Kubota D1102-	ul-3	⊗L / 68ci	⊗	24	⊗	2800	1983-1987
M4-30	Kubota Y850-	ul-4	⊗L / 51.9ci	18.6	25	⊗	3600	1988-3/93
M4-30A	Kubota Y850?-	ul-4	⊗L / 51.9ci	18.6	25	⊗	3600	3/93-7/97
M-35	Kubota V1200-	ul-4	⊗L / 75.5ci	22.3	30	⊗	3200	1987-3/93
M-35A	Kubota V1200?	ul-4	⊗L / 75.5ci	22.3	30	⊗	3200	3/93-9/96
M-35B–	Kubota ⊗	ul-4	1.335L / 81.47ci	26	35	⊗	3000	8/96-20??
M-35BC	Kubota ⊗	ul-4	⊗L / ⊗ci	⊗	35	⊗	3000	19??-19??
5432	Kubota V1501-	ul-4	⊗L / 91ci	⊗	32	⊗	2800	1978-1982
M-40	Kubota V1502-	ul-4	⊗L / 91ci	23.8	32	⊗	2800	1982-5/97
M-40A	Kubota V1502 ⊗	ul-4	⊗L / 91ci	23.8	32	⊗	2800	19??-19??
M-40B–	Kubota V1505? ⊗	ul-4	1.498L / 91.41ci	⊗	37.5	⊗	3000	9/99-20??
M-40BC	Kubota V1502 ⊗	ul-4	⊗L / ⊗ci	⊗	35	⊗	3000	19??-19??
M-47	Kubota ⊗	ul-⊗	⊗L / ⊗ci	⊗	⊗	⊗	⊗	19??-19??
5444	Kubota V1902-	ul-4	⊗L / 115ci	⊗	44	⊗	3000	1980-1982
M-50	^Kubota V1902-	ul-4	⊗L / 115ci	32.8	44	⊗	3000	1982-5/97
M-50A	Kubota V1902? ⊗	ul-4	⊗L / 115ci	32.8	44	⊗	3000	5/97?-7/98?
M-50B–	Kubota V1903? ⊗	ul-4	1.857L / 113.32ci	31	42	⊗	2800	7/98-20??
⊗	⊗	ul-⊗	⊗cc / ⊗L / ⊗ci	⊗	⊗	⊗	⊗	19??-19??

NOTES:

Documentation

If you can help us add information, Catalogs, Brochures, Spec Sheets, Pictures, OpManuals, Parts Lists, Shop Manuals, etc. that we lack, please submit the info or link in the Comment Box below, or attach the PDF to an email to the ***Editor@AbsolutelyEverythingAboutBoats.com****. Thanks!*

Go to Kubota, Beta & Nanni webpages for additional documentation!

Catalogs:

- Westerbeke Product Catalog (English) from Westerbeke.
- Westerbeke Product Catalog (Portuguese) from Westerbeke.
- Westerbeke Product Catalog (Spanish) from Westerbeke.

Brochures:

- +

SpecSheets/Data Sheets:

- Universal SpecSheet for 5411 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for 5416 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for 5420 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for 5421 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for 5424 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for 5432 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for 5444 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-12 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M2-12 Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M2-12A Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-15 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-18 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-20 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M3-20 Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M3-20A Diesel Marine Engine (8/95) from Westerbeke.
- Universal SpecSheet for M3-20B Diesel Marine Engine (7/15) From Westerbeke.
- Universal SpecSheet for M3-20BC Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-25 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-25XP Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M-25XPA Diesel Marine Engine (1/95) from Westerbeke.
- Universal SpecSheet for M-25XPB Diesel Marine Engine (7/15) From Westerbeke.
- Universal SpecSheet for M-25XPBC Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-30 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M4-30 Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M4-30A Diesel Marine Engine (1/95) from Westerbeke.
- Universal SpecSheet for M-35 Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M-35A Diesel Marine Engine (1/94) from Westerbeke.
- Universal SpecSheet for M-35B Diesel Marine Engine (3/04) from Westerbeke.
- Universal SpecSheet for M-35BC Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-40 Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M-40A Diesel Marine Engine (6/95) from Westerbeke.

- Universal SpecSheet for M-40B Diesel Marine Engine (1/05) from Westerbeke.
- Universal SpecSheet for M-40BC Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-47 Diesel Marine Engine (?/??) from Westerbeke.
- Universal SpecSheet for M-50 Diesel Marine Engine (7/89) from Westerbeke.
- Universal SpecSheet for M-50A Diesel Marine Engine (6/95) from Westerbeke.
- Universal SpecSheet for M-50B Diesel Marine Engine (3/04) from Westerbeke.
- Universal SpecSheet for ? Diesel Marine Engine (?/??) from Westerbeke.

Charts and Graphs:

- +

Pictures:

- +

Press Releases (by Date = YYMMDD):

- 161209 Westerbeke Corporation Affiliate, WBIP LLC, Settles Patent Infringement Lawsuit Against Kohler Co from Westerbeke.

Model History:

- Westerbeke Propulsion Model History (12/8/05) from Westerbeke.

Serial Number Guide – Manufacture Date Code Identification:

- Westerbeke Serial Number Guide – Manufacture Date Code Identification (5/12) from Westerbeke.

Engine Replacement Guide

- Westerbeke Repower Selectiont Guide 11-11 from Westerbeke.

Installation Instructions/Manuals:

- Westerbeke Installation Manual – Marine Engines & Generators (Rev 4) for All (6/1/2016) From Westerbeke.

Installation Diagrams & Drawings with Dimensions:

- Universal Installation Drawing 201088 for M3-20B (1/21/2015) From Westerbeke.
- Universal Installation Drawing #201089 for M-25XPB (10/7/2009) From Westerbeke.

Owner's/Operator's Manuals:

Not found: 5411, 5416, 5421, 5424, 5432, 5444, M3-20BC, M-25XPBC, M4-30, M-35BC, M-40A, M-40BC, M-47, M-50A.

- Universal Operation and Maintenance Manual #200156 for Atomic 4 (?/??) from Westerbeke.
- Universal Operation and Maintenance Manual #200156 for Atomic 4 (?/??) from L-36.
- –
- Universal Owner's Manual #200157 for M-12, M2-12, M-15, M18, M-20, M3-20, M-25, M-25XP, M-30, M-35, M-40, M-50 (?/??) from Westerbeke.
- Universal Owner's Manual #200157 for M-12, M2-12, M-15, M18, M-20, M3-20, M-25, M-25XP, M-30, M-35, M-40, M-50 (?/??) from L-36.
- –
- Universal Operators Manual #200494 (Rev 2) for M2-12A(C), M3-20A(C), M-25XPA, M4-30A, M-35A(C), (6/15) from Westerbeke.
- –
- Universal Operators Manual #200494 (Ed 1) for M3-20A, M3-20B, M-25XPA, M-25XPB, M-35A, M-35B (4/97) from L-36.
- –
- Universal Operator's Manual 200550 (Rev 2) for M3-20B, M-25XPB, M-35B, M-40B, M-50B (2/10) From Westerbeke.

Parts Schematics with Exploded Views & Parts Lists:

- None: M3-20A, M3-20BC, M4-30A, M-40A, M-40BC, M-50A,
-
- Part Numbers for Spare Parts Kit A from Westerbeke.
- Sea Water Pumps #24143 and 048080 from Westerbeke.
-
- Universal Parts List+ #200137 (Ed 1) for M-12, M2-12 (10/90) from Westerbeke.
- Universal Parts List+ #200137 (Ed 1) for M-12, M2-12 (10/90) from L-36.
-
- Universal Parts Manual #200138 for 5411, M-15 (Below s#300072) from Westerbeke.
- Universal Parts Manual #200138 for 5411, M-15 (Below s#300072) from L-36.
-
- Universal Parts Manual #200139 for M-18 from Westerbeke.
- Universal Parts Manual #200139 for M-18 from L-36.
-
- Universal Parts Manual #200140 for 5416, M-20 from Westerbeke.
- Universal Parts Manual #200140 for 5416, M-20 from L-36.

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- Universal Parts List+ #200141 (Ed 1) for M3-20 (10/90) from Westerbeke.
- Universal Parts List+ #200141 (Ed 1) for M3-20 (10/90) from L-36.
-
- Universal Parts List #200142 (Ed 1) for M-25, M-25XP (+5421) (10/90) from Westerbeke.
- Universal Parts List #200142 (Ed 1) for M-25, M-25XP (10/90) from L-36.
-
- Universal Parts List #200143 (Ed 1) for 5424, M-30 (10/93) from Westerbeke.
- Universal Parts List #200143 (Ed 1) for 5424, M-30 (10/93) from L-36.
-
- Universal Parts List+ #200144 (Ed 1) for M4-30 (10/90) from Westerbeke.
- Universal Parts List+ #200144 (Ed 1) for M4-30 (10/90) from L-36.
-
- Universal Parts List+ #200145 (Ed 1) for M-35 (10/90) from Westerbeke.
- Universal Parts List+ #200145 (Ed 1) for M-35 (10/90) from L-36.
-
- Universal Parts List #200146 (Ed 1) for M-40 (1/91) from Westerbeke.
- Universal Parts List #200146 (Ed 1) for M-40 (1/91) from L-36.
-
- Universal Parts List #200147 (Ed 2) for 5432 (5/98) from Westerbeke.
- Universal Parts List #200147 (Ed 2) for 5432 (5/98) from L-36.
-
- Universal Parts List #200148 (Ed 2) for 5444 (5/98) from Westerbeke.
-
- Universal Parts List+ #200149 (Ed 1) for M-50- (10/90) from Westerbeke.
-
- Universal Parts List #201009 (Ed 1) for M3-20B (6/01) from Westerbeke.
- Universal Parts List #201009 (Ed 1) for M3-20B (6/01) from L-36.
-
- Universal Parts List #201021 (Ed 2) for M-25XPB, (C), M-35B, (C), M-40B (4/13) from Westerbeke.
-
- Universal Parts List #201052 (Ed 0) for M-50B (6/03) from Westerbeke.
- Universal Parts List #? (Split) (Ed ?) for M-50B (?/??) from Westerbeke.
-
- Universal Parts List #201097 (Ed 0) for M-35A(C) (6/15) from Westerbeke.
-
- Universal Parts List #201098 (Ed 0) for M-25XPA(C) (4/16) from Westerbeke.

Parts Supersession Listing:

- Universal Superseded Parts Listing (8/1/2015) From Westerbeke.
- Universal Parts Supersession Listing (8/14) from Westerbeke.

Parts Bulletins:

- Westerbeke Parts Bulletin 2007-2: Fuel Filter 03020 (4/25/07) from Westerbeke.
- Westerbeke Parts Bulletin 2008-4: Paint Storage (11/24/08) from Westerbeke.
- Westerbeke Parts Bulletin 2009-8 REVISED: Air Intake Filter Housing P/N 044723 (9/17/10) from Westerbeke.
  Applies To: 35C/35D Three, 8.0BTDA/10.0 BTDA, 12.5 BTDB and 15.0 BTDC
- Westerbeke Parts Bulletin 2011-2: Coolant Hose Change (9/7/11) from Westerbeke.
  Applies To: 35B, 35C, 35D Three and 44A Four
- Westerbeke Parts Bulletin 2012-1 BW7 and JS Transmission (4/13/12) from Westerbeke.
  Applies To: 20B Two, 30B Three, 35B Three, 35C Three, 35D Three, 38B Four, 42B Four, 44A Four
- Westerbeke Parts Bulletin 2012-2: BW7 Transmission (4/13/12) from Westerbeke.
  Applies To: 20B Two, W 27, W 33, 30B Three, 35D Three, 35E Three, 44B Four
- Westerbeke Parts Bulletin 2013-1 valve diameter change (6/18/13) from Westerbeke.
- Westerbeke Parts Bulletin 2013-3: Model Reference Clarification Parts List 032139 (5/10/13) from Westerbeke.
- Westerbeke Parts Bulletin 2015-3: 72A Alternator Changes to 65A (3/23/15) from Westerbeke.
- Universal Parts Bulletin 2007-1: Part Number Errors M3-20B (4/25/2007) From Westerbeke.

Repair/Service/Technical/Workshop/Shop Manuals:

- None: M3-20A, M3-20BC, M-25XPA, M4-30A, M-25XPBC, M-35A, M-40A, M-35BC, M-40BC, M-50A, M-50B,
-
- Universal Service Manual #200151 for 5411, 5421, M-15, M-25 from Westerbeke.
- Universal Service Manual #200151 for 5411, 5421, M-15, M-25 from L-36.
-
- Universal Service Manual #200152 for 5416, 5424, M-20, M-30 (10/90) from Westerbeke.
- Universal Service Manual #200152 for 5416, 5424, M-20, M-30 (10/90) from L-36.
-
- Universal Service Manual #200153 for 5432, 5444 (10/90) from Westerbeke.
- Universal Service Manual #200153 for 5432, 5444 (10/90) from L-36.
-
- Universal Service Manual #200154 for M-30, M-40, M-50 from Westerbeke.
- Universal Service Manual #200154 for M-30, M-40, M-50 from L-36.
-
- Universal Service Manual #200155 for M-12, M2-12, M-18, M3-20, M-25, M-25XP, M4-30, M-35 from Westerbeke.
- Universal Service Manual #200155 for M-12, M2-12, M-18, M3-20, M-25, M-25XP, M4-30, M-35 from L-36.
-
- Universal Service Manual #200554 (Ed 1) for M-25XPB, M-35B, M-40B (1/01) from Westerbeke.
- Universal Service Manual #200554 (Ed 1) for M-25XPB, M-35B, M-40B (1/01) from L-36.

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- Universal Service Manual #200562 (Ed 1) for M3-20B (7/01) From Westerbeke.
- Universal Service Manual #200562 (Ed 1) for M3-20B (7/01) from L-36.

Wiring Diagrams:

- Universal Wiring Diagram #039144 (Rev J) for All (12/12/2008) From Westerbeke.
- Universal Wiring Diagram #039144 (Rev K) for All (12/12/2008) From Westerbeke.
- Universal Wiring Diagram #039144 (Rev L) for All (12/12/2008) From Westerbeke.
- Universal Wiring Diagram #039144 (Rev M) for All (3/2/2009) From Westerbeke.
- Universal Wiring Diagram #039144 (Rev N) for All (8/7/2008) From Westerbeke.

Service Bulletins:

- Westerbeke Service Bulletin #103: Tach Drive Cover Plate (1/22/80) from Westerbeke.
- Westerbeke Service Bulletin #104: S.W. Pump Pulley Set Screw (1/22/80) from Westerbeke.
- Westerbeke Service Bulletin #105: Cylinder Head Nut Torque (2/8/80) from Westerbeke.
- Westerbeke Service Bulletin #106: Sea Water Pump Weep Hole (2/8/80) from Westerbeke.
- Westerbeke Service Bulletin #125: Oil Pressure Switches (8/14/83) from Westerbeke.
- Westerbeke Service Bulletin #136: Shift Lever (2/9/84) from Westerbeke.
- Westerbeke Service Bulletin #155: Keyswitch (6/21/85) from Westerbeke.
- Westerbeke Service Bulletin #213: No Starter Motor Activation (4/13/1994) from Westerbeke.
- Westerbeke Service Bulletin #235: Cam Shaft Drive Tang Reinforcing Sleeve (10/27/2003) from Westerbeke.
- Westerbeke Service Bulletin #236: Universal Propulsion R.P.M. Ranges (10/27/2003) from Westerbeke.
- Westerbeke Service Bulletin #238: Fuel Pump Inlet Filter Part Number 048076 (2/28/03) from Westerbeke.
- Westerbeke Service Bulletin #239: Transmission Lubricant Change (10/27/03) from Westerbeke.
- Westerbeke Service Bulletin #242: Manufacture Date Code (8/20/04) from Westerbeke.
- Westerbeke Service Bulletin #247: Fuel Filter Bracket #300103 (1/1/2006) from Westerbeke.
- Westerbeke Service Bulletin #251: E10 Ethanol Advisory from Westerbeke.
- Westerbeke Service Bulletin #277: Tachometer Calibration (10/23/15) from Westerbeke.

Product Recalls:

- RECALL – Service Bulletin 225 Starter Motor – 1/28/1997 – Recall Type: Electrical DC from Westerbeke.
  Affected Models: 4.0 BCG, 4.5 BCG, 6.5 BCG, 7.0 BCG, 8.5 BTG, 8.5 BTGA, 9.0 BTG, 12.5 BTG, 15.0 BTG, W26G, W26GX, W41G, W70G
- RECALL – Bridge Rectifier – 10/30/1998 – Recall Type: Electrical AC from Westerbeke.
  Affected Models: 3.75 BCGTC, 3.75 BCGTE, 4.5 BCGTC, 4.5 BCGTE, 6.0 BCGTC, 6.0 BCGTE, 7.2 BCGTC, 9.6 BCGTC

- RECALL – Service Bulletin #246: Toggle Switch – 3/16/2007 – Recall Type: Electrical DC from Westerbeke.
  Affected Models: 5.0BCG, 5.0BCGA, 7.0BCGC, 7.0BCGD, 8.0BEG, 10.0BEG, 12.5BEG, 15.0BEG, 20.0BEG, 20.0BEGA, 25.0BEGA
- RECALL – Fuel Pump Energized – 8/10/2007 – Recall Type: Fuel from Westerbeke.
  Affected Models: 4.2 SBCG, 5.0 SBCG, 5.4 SBCG, 6.5 SBCG, 6.4 SBCG, 8.0 SBCG, 10.0 SBEG, 11.6 SBEG, 12.5 SBEG, 14.0 SBEG, 16.0 SBEG, 18.0 SBEG, 22.5 SBEG

More from Universal (Westerbeke)

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More Forum Posts, Tech Tips & Tech Notes may be found at Propulsion Machinery, Engines, DIY: Propulsion Machinery and DIY: Engines.

Forum Posts:

- +

Tech Tips:

- Dr. Diesel's Tech Tips from FoleyEngine.com
- #34 Atomic 4 Carburetors and Pumps.
- #77 Identifying your Kubota Four Cylinder Diesel.
- #79 Kubota 2203 Identification: A Field Guide.
- #110 Kubota 2203 Engine Kits: A Quick Guide.
- #120 How to Order a Kubota 2003 Engine Overhaul Kit: Five Easy Questions.
- See DIY: Propulsion Machinery for a full list of Dr. Diesel's Tech Tips from FoleyEngine.com

Tech Notes:

- +

Publications & Media:

*If you think we should add a Book, Magazine, Article, Website & Video to this webpage, please submit the Link in the Comment Box below or via email to the **Editor@AbsolutelyEverythingAboutBoats.com**. Thanks!*

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Websites:

www.OldMarineEngine.com: Discussion Board.

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— TOP 20 MOST POPULAR ARTICLES —

Ford Industrial Power Products Diesel Engines

How to Identify Ford Diesel Engines

Ford 2715E

Lehman Mfg. Co.

Detroit Diesel 8.2

Universal Atomic 4

Chrysler & Force Outboards

Eska Outboard Motors

Perkins Engines

ZF Friedrichshafen AG

Allison Transmission

American Marine Ltd (Grand Banks)

Boat Inspection

Types of Marine Surveys

Marine Surveyors by Regions

Boat Builders By MIC

Beta Marine

Waterwitch

American Boat and Yacht Counsel (ABYC)

USCG NVIC 07-95 Guidance on Inspection, Repair and Maintenance of Wooden Hulls

What our nonprofit Anchors Aweigh Academy and its *EverythingAboutBoats.org* website have accomplished so far.

- **Published over 300 website main topic webpages, many with full articles on the topic. See our Website Contents in the Right Sidebar for the listing of the main topic pages.**
- **Published over 9,000 marine vendor webpages, all with their contact information, most with a description of their products and services, many with product documentation, specifications and independent reviews. (Includes: Boat designers, boat building tools, material and equipment manufacturers and suppliers, boat builders and dealers, yacht brokers, marine surveyors, boat insurers, boat transporters, skippers and crews, boatyards and marinas, yacht clubs, boat rentals and yacht charters, boating, seamanship and maritime schools, marine law attorneys and expert witnesses, boat refitters and repairers, book authors and publishers, and video producers)**
- **Acquired over 120,000 pages of product documentation including Catalogs, Brochures, SpecSheets, Pictures, Serial Number Guides, Installation Manuals, OpManuals, Parts Schematics, Parts Bulletins, Shop Manuals, Wiring Diagrams, Service Bulletins, and Recalls. And have made all viewable to academy members through the *EAB* website.**
- **Acquired over 1,200 books and magazine back issues in our academy library and so far have made over 700 viewable to academy members through the *EAB* website.**
- **Published over 500 DIY How-To articles about boat design, construction, inspection, operation, maintenance, troubleshooting and repair. We are working hard to do more.**

We are currently formatting and polishing the Anchors Aweigh Academy online and hands-on courses. The Marine Surveying course has proven to be excellent for both the beginner and the seasoned surveyor, and especially helpful to the Do-It-Yourselfer.

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All comments are moderated before they appear on this page. See Comment Rules.

FROM Donald: "*This is an awesome website. I found the information that I needed right away from one of the over 10,000 free articles that you provide as a public service. I'm surprised that so much if this site is free. But I still signed up so I could access the thousands of expanded pages, interesting articles, and dozens of valuable programs! The member's library of books, magazines and videos that I can view online is really terrific! I understand that you and your staff are all unpaid volunteers. Please keep up the good work. And I commend you for your plans to add another 10,000 free informative articles over the next year. I'm thrilled to support you in this endeavor with my small membership donation. Thanks again for all your hard work.*"

> **FROM Huey:** "*I agree with my Uncle, I too have found the articles to be very enlightening. They say that it will take about 50,000 articles to cover the full scope that they have envisioned for the website. They have over 10,000 articles so far and that's doing pretty well, but it could take several years to get the rest. I also noticed that many of the Main Topic Pages and some of the article pages are still in the rough draft stage. I guess that they will fill in as they can get volunteers to work on them. But what I can't figure out is why anyone would spend the time writing informative in depth articles just to give away free to this website for publication? What's in it for them?*"
>
> > **FROM Dewey:** "*Well Huey, to me It looks like most of the articles on this website are written by very informed people, like boating instructors, boat designers, boat builders, riggers, electricians, fitters, marine repair technicians and marine surveyors. Writing such articles helps establish them as knowledgeable professionals. After all, this website was originally created by a school for marine technicians and marine surveyors. The website is growing in content every day. They even had to move to a bigger, more powerful server on October 15, 2018 because the website's traffic has been growing exponentially.*"

FROM Louie: "*I agree with everyone above. This site is quickly becoming the ultimate reference resource about every aspect of boats and ships for everyone from the beginning recreational boater to the seasoned professional mariner. I use the topic pages on the right sidebar to browse around the website. It's like a Junior Woodchucks' Guidebook for Boaters. Their Members' Library of over 300 popular and obscure books and over 200 magazine back issues that can be viewed online is fabulous. The Academy's magazine is especially informative. On top of that, there is the "Ask-An-Expert program for members where you can get an expert's answer to any of your boat questions. And a whole years membership is only $25. What a deal! I really love being part of this "Everything About Boats" community and help provide thousands of helpful articles free to the public. I think that I'll sit down right now and write an article about my experiences boating with my uncle.*"

FROM Scrooge: "*You rave about this website like it was the best thing since sliced bread. Well, I think it stinks. Sure, it has a lot of good information for boaters, and they're adding more every day, but it will probably never be finished. Furthermore, I don't even own a boat. And I wouldn't have a boat even if someone gave me one. Boats are a waste of money and time and energy and money! They're just a hole in the water you pour money into. If you gave me a boat, I'd sell it quicker then you could say Baggywrinkle. Then I'd lock up the cash with all my other money so I could keep my eye on it and count it every day. Bah humbug.*"

FROM Daisy: "*I'm just so glad that Donald got the boat so we and the boys could enjoy boating — together. And of course all of the girls, April, May, and June, love to be on the water too, especially when that is where the boys are. Oh poor Scrooge, boating is more fun then you could possibly imagine.*"

FROM Scrooge: "*After seeing how much fun you all have on the water together, I regret that I didn't have that much fun when I was young. I've had a change of heart, and I'm giving each of you a Lifetime Academy Membership.*"

FROM Editor: "*For those of you that have stayed with us this far, Thanks. You inspire us to keep working on this labor of love. We know that we have a lot more to do. Ultimately, we hope that we can help you enjoy the wonder filled world of boating as much as we do. We are all waiting to see what you have to say about this webpage article. And we assure you, your corrections, updates, additions and suggestions are welcomed. Let's work together on this.*" ♥

FROM N~~ame~~: *Text.*

Academy Members' Comments & Reviews

♥ Academy Members must be signed in to post and view ♥