

USCG ACCEPTED LIFEBOAT/RESCUE BOAT ENGINES

Accepted SOLAS Lifeboat/Rescue Boat Inboard Diesel Engines meeting US EPA Tier II emission requirements

Gauge packages for inboard engines on USCG approved lifeboats/rescue boats must include: coolant temperature for a liquid cooled engine; oil pressure for an engine with an oil pump; tachometer for an engine not provided with overspeed protection; state of charge or rate of charge for each rechargeable engine starting power source.

Aabenraa Motorfabrik, Heinrich Callesen A/S, Naestmark 30 (Postbox 79), DK-6200 Aabenraa, DENMARK

Phone: +45 74 62 20 88 +45 74 62 74 07

U.S. Representative: Alexander/Ryan Marine & Safety Co, PO Box 9363, Houston, Texas 77261-9363

Phone: 713-923-1671 Fax: 713-923-1972

BUKH-Beta 28 Type BBD1105, 20.6 kW/28 bhp @ 3600 rpm, 3-cylinder, electric start, watercooled.

BUKH-Beta 36 Type BBV1505, 26.5 kW/36 bhp @ 3000 rpm, 4-cylinder, electric start, watercooled.

BUKH-Beta 48 Type BBV2203, 36.1 kW/50 bhp @ 2800 rpm, 4-cylinder, electric start, watercooled.

Sabb Motor AS, P.O. Box 7170, 5020 Bergen, Norway. Phone: +47 55348800

U.S.rep: Sabb America East, 119 Lake Shore Circle, Leesburg, FL 34788. Phone: 352-589-2882

SABB L2S.093LB, 13.4 kW/18 bhp continuous @ 3000 rpm; 2-cylinder, electric start, inversion stop sensor, and air intake pre-heater. Hydraulic starter optional.

SABB L3S.139LB, 20.1 kW/26.9 bhp continuous @ 3000 rpm, 3-cylinder, electric start, inversion stop sensor, and air intake pre-heater. Hydraulic starter optional.

SABB L4S.186LB, 26.8 kW/35.9 bhp continuous @ 3000 rpm; 4-cylinder, electric start, inversion stop sensor, and air intake pre-heater. Hydraulic starter optional.

Steyr Motors GmbH, Im Stadtgut B1, A-4407 Steyr, Austria

STEYR M14TCAM Model 144M38, 4 stroke, 4 cylinder, turbocharged, 106 kW @ 3800 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M14TCAM Model 144V38, 4 stroke, 4 cylinder, turbocharged, 106 kW @ 3800 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M14TCAM Model 164M40, 4 stroke, 4 cylinder, turbocharged, 120 kW @ 4000 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M16TCAM Model 166K28 4 stroke, 6 cylinder, turbocharged, 120 kW @ 2800 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M16TCAM Model 236K43, 4 stroke, 6 cylinder, turbocharged, 156 kW @ 4300 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M16TCAM Model 236K42, 4 stroke, 6 cylinder, turbocharged, 170 kW @ 4200 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M16TCAM Model 256K43, 4 stroke, 6 cylinder, turbocharged, 184 kW @ 4300 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

STEYR M16TCAM Model 256H45, 4 stroke, 6 cylinder, turbocharged, 184 kW @ 4500 rpm, raw/fresh water-cooled via heat exchanger and configured to meet SOLAS cold start provisions

Volvo Penta of the Americas, 1300 Volvo Penta Drive, Chesapeake, VA 23320. Phone: 757-436-2800
AB Volvo Penta, S-405 08 Gothenburg, SWEDEN. Phone: 46-31-235460

Note: SOLAS modifications and supplemental SOLAS manual required from manufacturer.

Inboard engine models:

D3-110I, 81 kW @ 3000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D3-130I, 96 kW @ 4000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D3-160I, 120 kW @ 4000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D3-190I, 140 kW @ 4000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D4-180I, 132 kW @ 2800 rpm, 4 stroke, 4 cylinder, turbocharged, and water-cooled.
D4-225I, 165 kW @ 3500 rpm, 4 stroke, 4 cylinder, turbocharged, and water-cooled.
D4-260I, 191 kW @ 3500 rpm, 4 stroke, 4 cylinder, turbocharged, and water-cooled.
D6-280I, 206 kW @ 3500 rpm, 4 stroke, 6 cylinder, turbocharged, and water-cooled.
D6-310I, 228 kW @ 3500 rpm, 4 stroke, 6 cylinder, turbocharged, and water-cooled.
D6-330I, 243 kW @ 3500 rpm, 4 stroke, 6 cylinder, turbocharged, and water-cooled.
D6-370I, 272 kW @ 3500 rpm, 4 stroke, 6 cylinder, turbocharged, and water-cooled.

Inboard/outboard (Sterndrive) models:

D3-130A, 96 kW @ 4000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D3-160A, 120 kW @ 4000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D3-190A, 140 kW @ 4000 rpm, 4-stroke, 5 cylinder, turbocharged and water-cooled.
D4-225A/DP, 165 kW @ 3500 RPM, 4 stroke, 4 cylinder, turbocharged, and water-cooled.
D6-280A/DP, 206 kW @ 3500 RPM, 4 stroke, 6 cylinder, turbocharged, and water-cooled.
D6-310A/DP, 228 kW @ 3500 RPM, 4 stroke, 6 cylinder, turbocharged, and water-cooled.
D6-330A/DP, 243 kW @ 3500 RPM, 4 stroke, 6 cylinder, turbocharged, and water-cooled.
D6-350A/DP, 257 kW @ 3500 RPM, 4 stroke, 6 cylinder, turbocharged, and water-cooled.

Previously accepted SOLAS Inboard Diesel Engines that do not meet US EPA tier II emission standards

The following engines are no longer being made by the manufacturers in their original accepted form and/or do not meet current EPA emission standards. However, those engines still in production to the original accepted specifications and not meeting current EPA emission standards may still be used in a new or existing USCG approved lifeboat or rescue boat when labeled in accordance with 40 CFR 94.914(b) and until such time as a comparable tier 2 or tier 3 engine that meets the weight, size, and performance requirements of the boat is accepted under the USCG and SOLAS requirements.

Aabenraa Motorfabrik, Heinrich Callesen A/S, Naestmark 30 (Postbox 79), DK-6200 Aabenraa, DENMARK

Phone: +45 74 62 20 88 +45 74 62 74 07

U.S. Representative: Alexander/Ryan Marine & Safety Co, PO Box 9363, Houston, Texas 77261-9363

Phone: 713-923-1671 Fax: 713-923-1972

Bukh DV24RME. 2 cyl, 4 stroke, water-cooled, 24 bhp/17.6 kW @ 3600 rpm.

Bukh DV29RME. 2 cyl, 4 stroke, water-cooled, 29 bhp/21.3 kW @ 3600 rpm.

Bukh DV36RME. 3 cyl, 4 stroke, water-cooled, 36 bhp/26.5 kW @ 3600 rpm.

Bukh DV48RME. 3 cyl, 4 stroke, turbocharged, watercooled, 48 bhp/35.3 kW @ 3600 rpm.

Note: All engines to be equipped equivalent to the tested engine as follows: A permanently fixed starting aid system in the form of VISO F START PILOT. Battery capacity as recommended by engine manufacturer to meet SOLAS cold start specifications.

A. R. S. Marine Limited (Anglian Diesels), 1 Langley Road, Chedgrave, Loddon, Norwich, Norfolk NR14 6BN, UNITED KINGDOM

ARS/FSD425 Marine Diesel Engine (previously Thornycroft 152), 50 kW @ 4000 rpm, electric start, 24V/77 amp-hr or 12V/55 amp-hr battery.

Perkins Power Sales and Service Limited, Peterborough PE1 5NA, ENGLAND

Prima M80T, 78 bhp/58 kW @ 4,500 rpm; 12V/1.8 kW LUCAS MARINE electric starter; 12V/70amp LUCAS MARINE alternator; 12V/96 amp hour/440 cold crank amps battery; HURTH HBW250 reduction gear; 4 glow plugs @ 20 sec, 20 amp, 11 volts each.

Prima M60, 59 bhp/44 kW @ 4,000 rpm; 12V/1.8 kW LUCAS MARINE electric starter; 12V/70amp LUCAS MARINE alternator; 12V/96 amp hour/440 cold crank amps battery; HURTH HBW250 reduction gear; 4 glow plugs @ 20 sec, 20 amp, 11 volts each.

Prima M50, 49 bhp/37 kW @ 3,000 rpm; 12V/1.8 kW LUCAS MARINE electric starter; 12V/70amp LUCAS MARINE alternator; 12V/96 amp hour/440 cold crank amps battery; HURTH HBW10 reduction gear; 4 glow plugs @ 20 sec, 20 amp, 11 volts each.

Perama M30, 29 bhp/21 kW @ 3,600 rpm; 12V/1.2 kW NIPPON DENSO electric starter; 12V/55amp LUCAS MARINE alternator; 12V/70 amp hour/340 cold crank amps battery; HURTH HBW50 reduction gear; Glow plug 12 volts, 27 amp.

Cummins Marine, 4500 Leeds Ave., Suite 301, Carlestone SC 29405

Cummins Engine Co., Inc, 601 Madison Street, # 200, Alexandria, VA 22314

6BT5.9-M; 157 kW @ 2600 rpm; turbocharged, with CH9027 cylinder block coolant heater.

6BTA5.9-M1; 187 kW @ 2600 rpm; t/charged w/after cooler, with CH9027 cylinder block coolant heater.

6BTA5.9-M2; 223 kW @ 2800 rpm; t/charged w/after cooler, with air intake electric heater coil #3913348.

Note: Battery capacity as recommended by Cummins based on 12 or 24 volt system requirements to meet SOLAS cold start specifications.

For non-self-righting boats only:

6BTA5.9-M(JW); 194 kW @ 2600 rpm; t/charged w/after cooler, with air intake electric heater coil AH 9089 or AH 9078. Battery capacity at least 950 CCA for 12 volt and 475 CCA for 24 volt system requirements to meet SOLAS cold start specifications.

Lister Petter Marine, Hawker Siddley Marine, Thrupp Stroud, Gloucestershire GL5 2BW, England

U.S. rep: Lister Petter Inc., 555 E. 56 Highway, P.O. Box 1160, Olathe, KS 66061

Lister STW2 MGR, 30 BHP @ 3000 RPM, with electric and hand crank starting.

Lister STW3 MGR, 40 BHP @ 2800 RPM, with electric and hand crank starting.

Lister-Petter LPW2LB, identical to SABB L2.093LB

Lister-Petter LPW3LB, identical to SABB L3.139LB

Lister-Petter LPW4LB, identical to SABB L4.186LB

Sabb Motor A/S U.S. P.O. Box 2728, 5010 Bergen, Norway.

U.S.rep:Sabb America, P.O. Box 70139, Seattle, WA 98107

Sabb 2JRG/2JHR, with Start Pilot and electric starting. Boat must carry one full spare container of Start Pilot.

Sabb M4.295 GR with heater plugs and electric starting.

Sabb M4.295 GR with American Bosch Hydrotor starting and Start Pilot. Boat must carry one full spare container of Start Pilot

SABB L2.093LB, 13.2 kW / 18 bhp continuous @ 3000 rpm; 1.7 kW sealed LUCAS MARINE electric starter; HURTH reduction gear and permanently sealed flywheel housing; and 345w electric glow plug in air inlet manifold

SABB L3.139LB, 19.8 kW / 27 bhp continuous @ 3000 rpm, configured as above.

SABB L3.139LB, 19.8 kW / 27 bhp continuous @ 3000 rpm, with IPU M16 hydraulic starter, and 42 V 300 W jacket heater.

SABB L4.186LB, 26.5 kW / 36 bhp continuous @ 3000 rpm; 1.7 kW sealed LUCAS MARINE electric starter; HURTH reduction gear & permanently sealed flywheel housing; and 2x345w electric glow plugs in air inlet manifold

Survival Systems International, 34140 Valley Center Road, P.O. Box 1855, Valley Center, CA 92082

Perkins 4.108 with Turner (ether) Quick-Start, American Bosch Hydrotor Starting. Boat must carry one full spare Quick Start cartridge.

Perkins 4.154 with Turner (ether) Quick-Start, American Bosch Hydrotor Starting. Boat must carry one full spare Quick Start cartridge.

Volvo Penta of America, 1300 Volvo Penta Drive, Chesapeake, VA 23320

AB Volvo Penta, S-405 08 Gothenburg, SWEDEN

Volvo Penta #2003T (SOLAS version), 4 stroke, 3 cyl, Turbo-charged, 34 kW @ 3200 rpm, with intake air preheater (electric 12V, 1.5kW), and starter battery 12V, 88Ah.

Volvo Penta #2003, non turbo-charged, 21.5 kW @ 3200 rpm, configured as above.

Volvo Penta TAMD41 only with starting and heating systems as specified in G-MVI-3 ltr 16714/162.101/Volvo Penta dtd 13 Jul 1988.

Volvo Penta TAMD31, 4 stroke direct injection, 4 cyl, 98 kW @ 3800 rpm, and TAMD31P, 110 kW @ 3900 rpm. Engine must be configured to SOLAS 74/83 specification with 2*12V, 152 Ah battery per battery group, 2.5 kW starter motor, and 4*360W glow plugs for preheating.

Volvo Penta TAMD63P, 4 stroke direct injection, 6 cyl, 272 kW @ 2800 rpm. Engine must be configured to SOLAS 74/83 specification with 2*12V, 210 Ah batteries, 5.4KW starter motor, 55-second electrical pre-heater, inclination switch (PN-873112), SESCO, Deaco RO1639 crankcase shut-off valve, and NEBIM 8903000991 reverse gear oil shut-off valve.

Volvo Penta TMD 22, 78 bhp/58 kW @ 4,500 rpm and configured to meet SOLAS cold start provisions.

Volvo Penta MD 22, 59 bhp/44 kW @ 4,000 rpm and configured to meet SOLAS cold start provisions.

Volvo Penta MD 22 L, 49 bhp/37 kW @ 3,000 rpm and configured to meet SOLAS cold start provisions.

Volvo Penta MD 2030, 29 bhp/21 kW @ 3,600 rpm and configured to meet SOLAS cold start provisions.

Yanmar Marine USA Corp, 101 International Parkway, Adairsville, GA 30103. Phone: 770-877-9894 Fax: 770-877-7565

Note: Manufacturer's SOLAS Kit NS 9040 0002 required for all USCG accepted engines.

Yanmar 4JH3-E, Diesel, 4 cyl, 4 cycle, 1.995 liter, 41.2 kW/56 hp @ 3800 rpm, naturally aspirated, electric start.

Yanmar 4JH3-TE, Diesel, 4 cyl, 4 cycle, 1.995 liter, 55.3 kW/75 hp @ 3800 rpm, turbocharged, electric start.

Yanmar 4JH3-HTE, Diesel, 4 cyl, 4 cycle, 1.995 liter, 73.6 kW/100 hp @ 3800 rpm, turbo w/intercooler, electric start.

Yanmar 4JH3-DTE, Diesel, 4 cyl, 4 cycle, 1.995 liter, 91.9 kW (125 hp) @ 3800 rpm, turbo w/intercooler, electric start.

Accepted SOLAS Rescue Boat Outboard Engines

Outboard engines listed in this section must be equipped with a propeller guard. Portable fuel systems must meet UL Standard 1185 Portable Marine Fuel Tanks or equal, except that hoses, primers, and filters must comply with the requirements of USCG Type A flexible hose. Anti-siphon devices must be provided in the fuel system to prevent fuel spillage when the hose is disconnected. The fuel tank must be able to be secured to the boat. Permanently installed gasoline fuel systems must meet the requirements of 33 CFR 183, Subpart J - Fuel Systems. Unless otherwise specified, for outboard engines, means must be provided to allow a 5 minute supply of cooling water to the installed engine when the boat is out of the water.

Donovan Marine, Inc. 6316 Humphreys St., Harahan, LA 70123. Phone 877-366-2366.

Note: Donovan Marine SOLAS Outboard Engine Kit required for use on USCG approved rescue boats. A copy of the USCG acceptance letter must be provided with each engine and kept on file by each ship with a USCG approved boat.

Evinrude E-TEC 40 Model E40DRL, Rope recoil start, 863cc (52.7 cu in), 30kW (40HP) at 5500 rpm.

Umoe Schat-Harding, 912 Highway 90 East, New Iberia, LA 70560. Phone: (337) 365-5451.

Note: Schat Harding USCG Outboard Engine Kit required for use on USCG approved rescue boats. A copy of the USCG acceptance letter must be provided with each engine and kept on file by each ship with a USCG approved boat.

Evinrude E-TEC 40 Model E40DRL, Rope recoil start, 863cc (52.7 cu in), 30kW (40HP) at 5500 rpm.

Previously Accepted SOLAS Outboard Engines

The following engines are no longer being made by the manufacturers or in their original accepted form due to EPA regulations that came into force in January 2006. Engines built prior to January 2006 to the original accepted specifications can still be used on USCG SOLAS approved rescue boats. There is currently no emergency vessel exemption provision in the US EPA regulations for gasoline engines.

Mercury Marine, W6250 Pioneer Road, P.O. Box 1939, Fond Du Lac, WI 54936-1939

Mariner Model 8MA, gasoline, 2 cyl, 2 stroke, 210 cc, 6 kW, 4500~5000 rpm, manual start.

Mariner Model 9.9MA, gasoline, 2 cyl, 2 stroke, 210 cc, 7.4 kW, 5000~6000 rpm, manual start.

Mariner Model 20MA, gasoline, 2 cyl, 2 stroke, 400 cc, 14.9 kW, 4500~5500 rpm, manual start.

Mariner Model 25A, gasoline, 2 cyl, 2 stroke, 400 cc, 18.7 kW, 5000~6000 rpm, manual start.

Mariner Model 40, gasoline, 3 cyl, 2 stroke, 967 cc, 30 kW, 5000-5500 rpm, electric start. Must also have provisions for manual start or be equipped with two independent, rechargeable batteries.

Mariner Model 60, gasoline, 3 cyl, 2 stroke, 965 cc, 44.7 kW, 5000~5500 rpm, electric start. Must also have provisions for manual start or be equipped with two independent, rechargeable batteries.

Mariner Model 75, gasoline, 3 cyl, 2 stroke, 1165 cc, 55.9 kW, 4750~5250 rpm, electric start. Must also have provisions for manual start or be equipped with two independent, rechargeable batteries.

Mariner Model 90, gasoline, 3 cyl, 2 stroke, 1165 cc, 67.1 kW, 5000~5500 rpm, electric start. Must also have provisions for manual start or be equipped with two independent, rechargeable batteries.

Bombardier Recreational Products Group, 200 Seahorse Drive, Waukegan, IL 60085, Phone: 847-689-5650, FAX: 847-689-5599 & 540-710-1196

Note: Since Model designations may have additional characters depending on the year of manufacture, the country in which the engines are made/sold, and additional features provided, the manufacturer must certify the parts and

subassemblies used in the engines are the same as the original tested engine. Manufacturer's SOLAS Kit required for all USCG accepted engines

Evinrude or Johnson Model 25R, 25W, Rope Recoil Start, 521 cc (32 cu in), 18.6 kW (25 HP) at 5000-6000 rpm

Evinrude or Johnson Model 25T, Electric with Emergency Rope Start, 521 cc, 18.6 kW at 5000-6000 rpm

Evinrude or Johnson Model 30R, Rope Recoil Start, 521 cc, 22.4 kW (30 HP) at 5000-6000 rpm

Evinrude or Johnson Model 30E, Electric with Emergency Rope Start, 521 cc, 22.4 kW at 5000-6000 rpm

Evinrude or Johnson Model 40R, 40W, Rope Recoil Start, 735.8 cc (44.9 cu in), 29.8 kW (40 HP) at 5000-6000 rpm

Evinrude or Johnson Model 50R, Rope Recoil Start, 735.8 cc, 37.3 kW (50 HP) at 5000-6000 rpm

Evinrude or Johnson Model 50E, Electric with Emergency Rope Start, 735.8 cc, 37.3 kW at 5000-6000 rpm

Evinrude or Johnson Model 55R, 55W, Electric with Emergency Rope Start, 735.8 cc, 41 kW (55 HP) at 5000-6000 rpm

Evinrude or Johnson Model 65WR, Rope Recoil Start, 917.7 cc (56 cu in), 48.5 kW (65 HP) at 5000-6000 rpm

Evinrude or Johnson Model 65WE, Electric with Emergency Rope Start, 917.7 cc, 48.5 kW at 5000-6000 rpm

Evinrude or Johnson Model 70E, 70P, and 70V, Electric with Emergency Rope Start, 917.7 cc, 52.2 kW (70 HP) at 5000-6000 rpm

Yanmar Marine USA Corp, 101 International Parkway, Adairsville, GA 30103. Phone: 770-877-9894 Fax: 770-877-7565

Yanmar D27, Diesel, 3 cyl, 4 cycle, 808 cc, 19.9 kW (27 hp) @ 4500 rpm, manual start with electric option.

Yanmar D36, Diesel, 3 cyl, 4 cycle, 1109 cc, 26.5 kW (36 hp) @ 4500 rpm, electric start with emergency manual start.

Lifeboat Diesel Engines - Use only to repair pre-1986 lifeboats

The following diesel engines are accepted for use in Coast Guard approved lifeboats, tested and found to comply with 20_F starting requirement without aids. Required starting systems and auxiliary equipment are listed. Additional starting systems and aids may be provided as an option.

Engine Technology, Inc., 704 Ginesi Drive, Morganville, NJ 07751

Farymann R30M, hand crank starting.
Farymann P30M, hand crank starting.
Farymann S30M, hand crank starting.
Bukh DV20RME, hand crank starting.

Lister-Petter, Inc., 555 E. 56 Highway, P. O. Box 1160, Olathe, KS 66061

Lister HRW2M, hand crank starting or American Bosch Hydrotor Starting.
Lister STW2M, hand crank starting or American Bosch Hydrotor Starting.
Lister STW3M, hand crank starting or American Bosch Hydrotor Starting.
Lister TS-1-MGR, hand crank starting, no aids required.
Lister TS-2-MGR, hand crank starting, no aids required.
Lister TS-3-MGR, hand crank starting, no aids required.

Charles E. Smith Co, Inc., 16872 Milliken Ave., Irvine, CA 92714

Perkins 4.154 with Densifier, American Bosch Hydrotor Starting.
Perkins 4.108 with Densifier, American Bosch Hydrotor Starting.

Sabb Motor A/S U.S. P.O. Box 2728, 5010 Bergen, Norway.

U.S.rep:Sabb America, P.O. Box 70139, Seattle, WA 98107

Sabb GAG, with excess fuel device and hand crank starting.
Sabb M4.295GR with American Bosch Hydrotor starting, no aids required.

J.H. Westerbeke Corp., Avon Industrial Park, Avon Ma. 02322

Westerbeke LB-40 (formerly 4-107) with Lubcell, American Bosch Hydrotor Starting.
Westerbeke LB-49 with Lubcell, American Bosch Hydrotor Starting.
Westerbeke Pilot 20 with Lubcell, American Bosch Hydrotor Starting.

The following diesel engines are accepted for use in Coast Guard approved lifeboats, tested and found to comply with 5_F starting requirement with starting aids as indicated. Required starting systems and auxiliary equipment are listed. Additional starting systems and aids may be provided as an option.

Aabrenaa Motorfabrik, Heinrich Callesen A/S, Naestmark 30 (Postbox 81), DK-6200 Aabrenaa, DENMARK

Phone: +45 74 62 20 88 +45 74 62 74 07

U.S. Representative: North Jersey Marine, 215 Trimble Ave., Clifton, NJ 07011

Phone: (201) 546-6377 (201) 546-0510

Bukh DV20RME, hand/electric starting with liquid pilot start.
Bukh DV24RME, hand/electric starting with liquid pilot start.
Bukh DV36RME, hand crank starting (no aids required).
Bukh DV48RME, hand crank starting (no aids required).

Diesel Tech Inc., 4016 Seaboard Court, Portsmouth, VA 23701

Phone: (757) 488-7745 FAX: (757) 488-7759

TAD 4.236 (Perkins), with TADC5100 Cold Start Aid Kit, and American Bosch Hydrotor Starting, model CMA motor, ACC 15B accumulator, HPS A-15system. Boat must carry one full spare container of Start Pilot

Lister-Petter, Inc., 555 E. 56 Highway, P. O. Box 1160, Olathe, KS. 66061

Lister TS-1-MGR, hand crank starting, no aids required.

Lister TS-2-MGR, hand crank starting, no aids required.

Lister TS-3-MGR, hand crank starting, no aids required.

Petter AC2WM "Mini-Twin", with electric starting, installed oil primers and KBI Diesel Start System. Boat must carry one full spare container of starting fluid.

Southeast Diesel Corp., 10626 Phillips Hwy, Jacksonville Fl. 32224

Perkins 4.108 with Turner (ether) Quick Start, American Bosch Hydrotor Starting. Boat must carry one full spare Quick Start cartridge.

Sabb Motor A/S U.S. P.O. Box 2728, 5010 Bergen, Norway.

U.S.rep:Sabb America, P.O. Box 70139, Seattle, WA 98107

Sabb 2JRG/2JHR, with Start Pilot and electric starting. Boat must carry one full spare container of Start Pilot.

Sabb GAG, with excess fuel device and electric starting.

Sabb M4.295 GR with heater plugs and electric starting.

J.H. Westerbeke Corp., Avon Industrial Park, Avon, MA 02322

Westerbeke W80-LB with Lubcell, Turner (ether) Quick Start, and American Bosch Hydrotor Starting. Boat must carry one full spare "Quick Start" cartridge.