

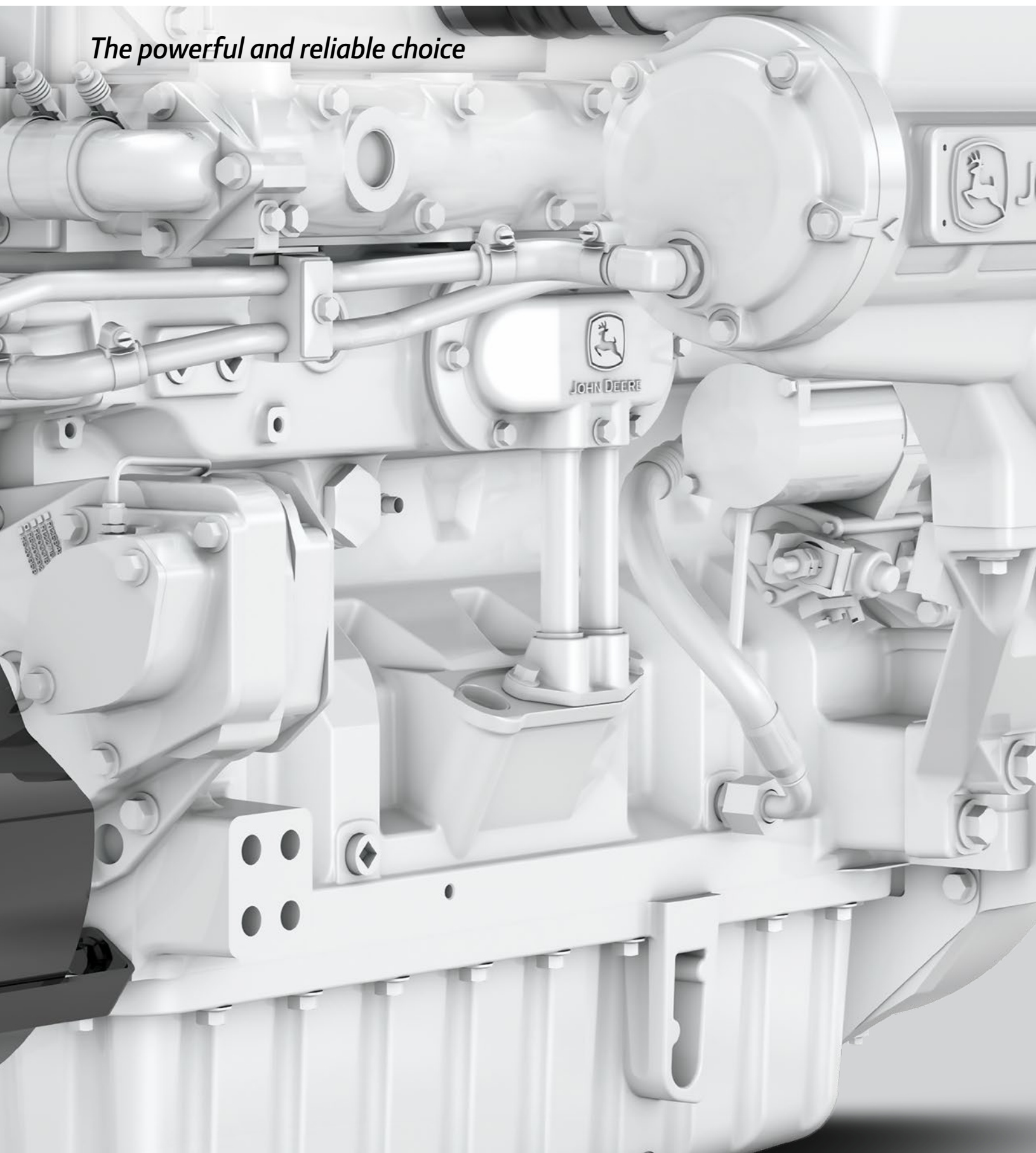
Marine Applications

Diesel Engines



JOHN DEERE

The powerful and reliable choice

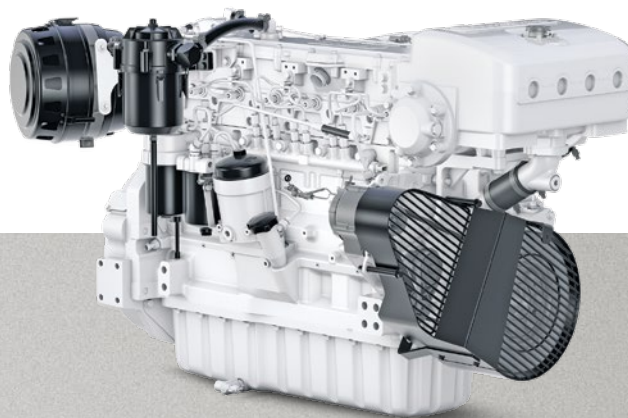


Nothing Runs Like A Deere™

John Deere PowerTech™ engines are as powerful in the water as they are on the land. Our marine propulsion, generator, and auxiliary engines share the same reputation for performance and reliability that their agricultural and industrial counterparts have enjoyed for decades. They are also backed by a vast service network that will keep you operating — no matter where you go.

When you choose John Deere, you get the support of one of the strongest engine and equipment companies in the world. See for yourself why more vessels are being powered by John Deere.





Meeting regulations around the world

John Deere marine engines comply with international, European, and United States emissions standards for regulated vessels. John Deere meets U.S. Environmental Protection Agency (EPA) Marine Tier 3 emissions regulations with a complete line of PowerTech engines for newly constructed vessels as well as repowered boats.

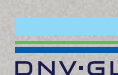
- EPA Tier 3 regulations for vessels flagged in the United States
- European Union Nonroad Mobile Machinery (NRMM – 97/68/EC as amended), whose standards are also recognized by the CCNR for sailing on the Rhine
- European Union Recreational Craft Directive II (RCD II)
- Emissions certified engines over 130 kW (174 hp) meet regulations set out in Annex VI of the International Maritime Organization (IMO) MARPOL convention. Engine International Air Pollution Prevention (EIAPP) certificates issued by the EPA or American Bureau of Shipping (ABS) are available for select engine models. **Visit your John Deere marine dealer or engine distributor for details.**

Engines for non-regulated territories

In addition to the engines for various emissions regulations mentioned, John Deere offers engines for the non-regulated regions throughout the world.

Marine classification societies

John Deere provides a full line of marine engines designed to meet the requirements of the various marine classification societies.



Propulsion engines — more power in the water

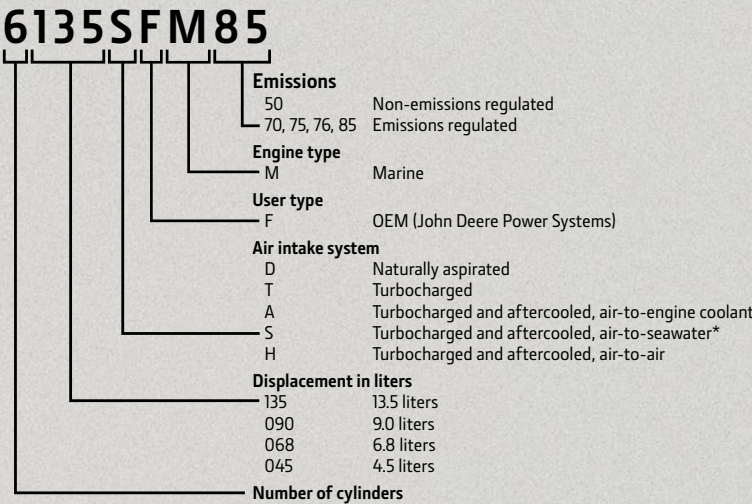


John Deere PowerTech engines are built for long life, reliable performance, fuel efficiency, quiet operation, ease of access to main parts, and simplified integration. They give you the power you need when you're on the water. Choose reliable John Deere engines from 60 to 559 kW (80 to 750 hp).

Propelled performance

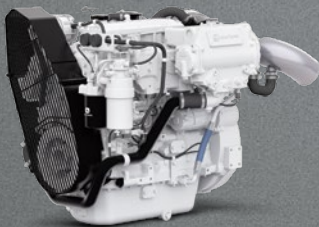
John Deere engines give you an effective blend of pure power and rugged toughness. Our full, high-horsepower lineup offers the right engine for your needs — each of them with added torque at slower speeds. The result? John Deere engines now build power faster and cruise at a higher speed with a lower rpm. Boost your vessel's performance in swells, tides, or currents with reliable power that's ready when you are.

Model designation key

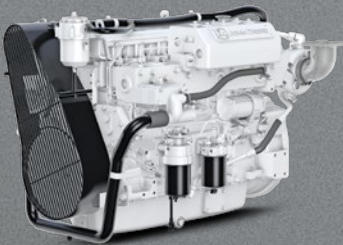


A John Deere marine engine model designated as 6135SFM85 is a 6-cylinder, 13.5-liter turbocharged and aftercooled, air-to-seawater engine that is emissions regulated.

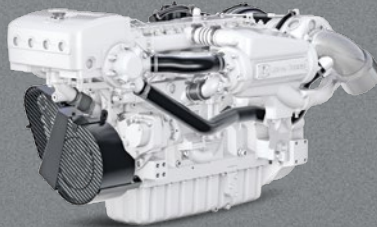
**S engines can be modified to be turbocharged and aftercooled, air-to-engine coolant, in dual-circuit keeled-cooled applications. Contact your John Deere engine distributor.*



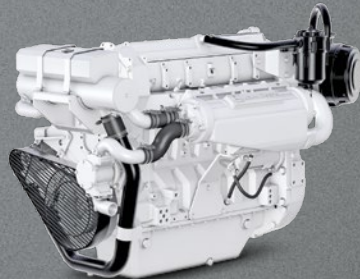
4.5L
60 – 235 kW
80 – 315 hp



6.8L
115 – 298 kW
154 – 400 hp



9.0L
213 – 410 kW
285 – 550 hp



13.5L
272 – 559 kW
365 – 750 hp

Marine propulsion M ratings

Ratings are based on the ISO 8665/SAE J1225 standard power rating and the ISO 3046/SAE J1995 crankshaft power rating. The M rating definitions are provided as a guide to help in the selection of the engine that best fits the application requirements. It is recommended to consult a John Deere marine dealer or engine distributor to verify the optimal rating for the specific application.

M1	The M1 rating is for marine propulsion applications that may operate up to 24 hours per day at uninterrupted full power and have load factors* greater than 65 percent.	Possible applications: Line hauls tugs and towboats, fish and shrimp trawlers/draggers, and displacement hull fishing boats.
M2	The M2 rating is for marine propulsion applications that typically operate between 3,000 to 5,000 hours per year and have load factors* up to 65 percent. This rating is for applications that are in continuous use and use full power for no more than 16 hours of each 24 hours of operation. The remaining time of operation is at or below cruising [†] speed.	Possible applications: Short-range tugs and towboats, long-range ferryboats, large passenger vessels, and offshore displacement hull fishing boats.
M3	The M3 rating is for marine propulsion applications that typically operate between 2,000 to 4,000 hours per year and have load factors* up to 50 percent. This rating is for applications that use full power for no more than four hours out of each 12 hours of operation. The remaining time of operation is at or below cruising [†] speed.	Possible applications: Coastal fishing boats, offshore crew boats, research boats, short range ferryboats, and dinner cruise boats.
M4	The M4 rating is for marine propulsion applications that typically operate between 1,000 to 3,000 hours per year and have load factors* below 40 percent. This rating is for applications that use full power no more than one hour out of each 12 hours of operation. The remaining time of operation is at or below cruising [†] speed.	Possible applications: Inshore crew boats, charter fishing boats, pilot boats, dive boats, and planing hull commercial fishing boats.
M5	The M5 rating is for marine recreational propulsion and certification for light-duty commercial Tier 3 applications that operate up to 1,000 hours per year and have load factors* below 35 percent. This rating is for applications that use full power for no more than 30 minutes out of each eight hours. The remaining time of operation is at or below cruising [†] speed.	Possible applications: Recreational boats, tactical military vessels, and rescue boats.

* Load factor is the actual fuel burned over a period of time divided by the full-power fuel consumption for the same period of time. For example, if an engine burns 160 liters of fuel during an eight-hour run, and the full-power fuel consumption is 60 liters per hour, the load factor is 160 liters / (60 liters per hour x 8 hours) = 33.3 percent.

† Cruising is any operating time where the engine speed is more than 200 rpm less than the maximum attainable engine speed.

Propulsion power ratings – IMO compliant and non-certified engines

Engine	Power rating
4045DFM70	60 kW (80 hp)
4045TFM50	90 – 112 kW (120 – 150 hp)
6068TFM50	115 – 168 kW (154 – 225 hp)
6068TFM75	118 – 150 kW (158 – 201 hp)
6068AFM75	172 – 246 kW (230 – 330 hp)
6068SFM75	186 – 298 kW (249 – 400 hp)
6090AFM75	213 – 317 kW (285 – 425 hp)
6090SFM75	242 – 410 kW (325 – 550 hp)

Ratings are subject to change. Please contact your John Deere marine dealer or engine distributor for details.

kW	0	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600
hp	0	34	67	101	134	168	201	235	268	302	335	369	402	436	469	503	536	570	603	637	670	704	738	771	805

Propulsion power ratings — IMO & EPA compliant engines

Engine	Power rating
404STFM85	75 – 93 kW (100 – 125 hp)
404AFM85	119 – 168 kW (160 – 225 hp)
404SFM85	205 – 235 kW (275 – 315 hp)
6068AFM85	172 – 246 kW (230 – 330 hp)
6068SFM85	186 – 298 kW (249 – 400 hp)
6090AFM85	213 – 317 kW (285 – 425 hp)
6090SFM85	242 – 410 kW (325 – 550 hp)
6135AFM85	272 – 429 kW (365 – 575 hp)
6135SFM85	317 – 559 kW (425 – 750 hp)

Ratings are subject to change. Please contact your John Deere marine dealer or engine distributor for details.

Generator drive and constant-speed auxiliary engines — the strong silent type

Power that never lets you down

For reliable power from 40 to 416 kW (54 to 558 hp), John Deere generator drive and constant-speed auxiliary engines deliver quiet, smooth operation that never lets you down. You may even forget they are aboard until you turn on the lights or plug in an appliance. This quiet reliability is why John Deere is a preferred provider of generator drive engines worldwide.

Quiet operation and low vibration

We strive to design engines that go almost unnoticed. This is why all the moving parts are dynamically balanced. The torque available at low rpm helps with fast load response.

- Water-cooled exhaust manifold for cooler and quieter performance
- Engine isolators with optional mounting supports
- All 4-cylinder models have internal balance shafts to eliminate vibration

Marine generator drive engine ratings

The marine generator engine rating is the power available under normal varying electrical load factors* for an unlimited number of hours per year in commercial applications. This rating incorporates a 10 percent overload capability, and conforms to ISO 8528 prime power. Average load over a 24-hour period shall not exceed 67 percent of the prime rating, of which no more than two hours are between 100 percent and 110 percent of the prime rating.

This rating is used for applications that require constant speed in auxiliary applications.

* Load factor is the actual fuel burned over a period of time divided by the full-power fuel consumption for the same period of time. For example, if an engine burns 160 liters of fuel during an eight-hour run, and the full-power fuel consumption is 60 liters per hour, the load factor is 160 liters / (60 liters per hour x 8 hours) = 33.3 percent.

Engine model	Emissions		Prime power ratings			
	IMO	EPA	kW	hp	kVA	kWe
1500 rpm / 50Hz						
IMO compliant and non-certified engines						
4045DFM70	EX	-	40	54	45	36
4045TFM50	EX	-	57	76	64	51
4045TFM85	EX	-	61	82	69	55
4045AFM85	EX	-	89	120	102	82
6068TFM50	EX	-	89	119	102	82
6068AFM85	EX	-	117	157	132	106
6068AFM85	Tier 2	-	139	187	160	128
6068AFM75	Tier 2	-	139	187	160	128
6068SFM85	Tier 2	-	168	226	188	150
6090AFM75	Tier 2	-	195	261	219	175
6090SFM75	Tier 2	-	222	297	250	200
6090AFM85	Tier 2	-	195	261	219	175
6090SFM85	Tier 2	-	222	297	250	200
6135AFM85	Tier 2	-	278	373	313	250
6135SFM85	Tier 2	-	334	447	375	300
1800 rpm / 60Hz						
IMO compliant and non-certified engines						
4045DFM70	EX	-	46	62	50	40
4045TFM50	EX	-	71	95	80	64
6068TFM50	EX	-	115	154	124	99
6068AFM75	Tier 2	-	166	223	188	150
6090AFM75	Tier 2	-	222	297	250	200
6090SFM75	Tier 2	-	278	373	313	250
IMO & EPA compliant engines						
4045TFM85	EX	Tier 3	74	99	81	65
4045TF285	Tier 2	Tier 3	71	95	74	60
4045AFM85	Tier 2	Tier 3	110	148	124	99
4045HF285	Tier 2	Tier 3	117	157	123	99
6068AFM85	Tier 2	Tier 3	166	223	188	150
6068SFM85	Tier 2	Tier 3	195	262	218	175
6090AFM85	Tier 2	Tier 3	222	297	250	200
6090HFM85	-	Tier 3	238	319	249	200
6090SFM85	Tier 2	Tier 3	278	373	313	250
6135AFM85	Tier 2	Tier 3	334	447	375	300
6135HFM85	-	Tier 3	416	558	436	350
6135SFM85	Tier 2	Tier 3	416	558	469	375

EX = MARPOL Annex VI exempt

Specifications are subject to change.

Variable-speed auxiliary engines — ready when you are

We've got you covered

John Deere provides a full line of reliable and fuel-efficient variable-speed auxiliary engines to help you meet U.S. Environmental Protection Agency Marine Tier 3 emissions regulations* and marine classification societies. See your John Deere marine dealer or engine distributor for complete specifications. Log on to JohnDeere.com/Dealer to find the service dealer nearest you.

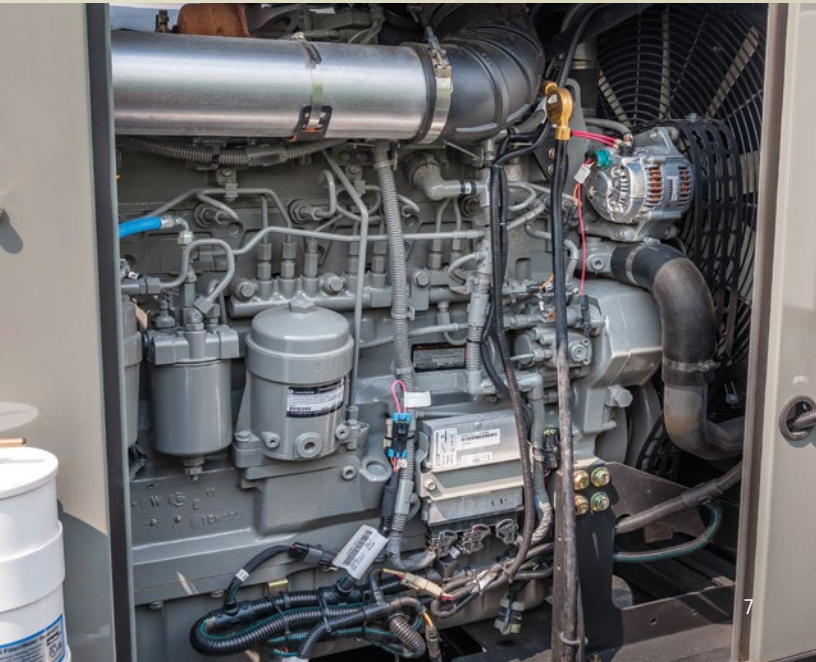
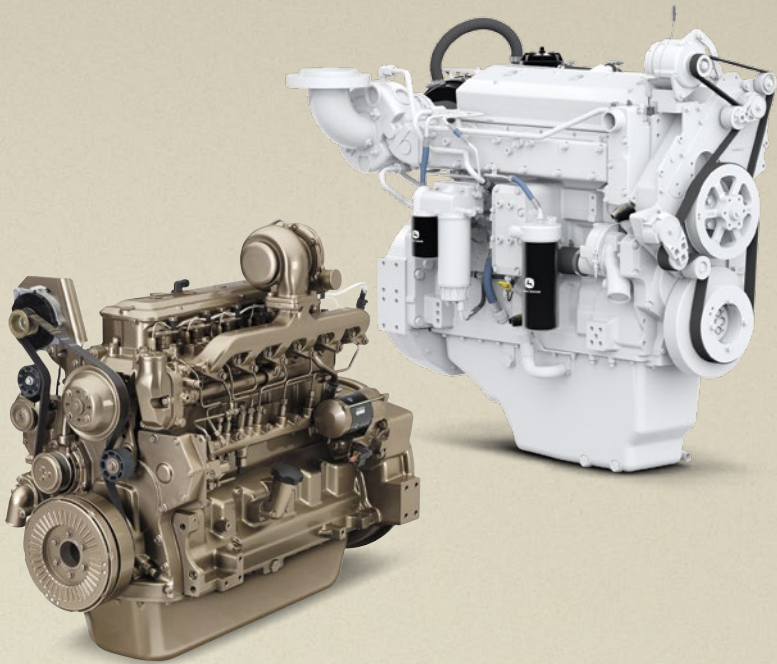
* Not available in all countries.
Specifications are subject to change.

Dry-exhaust or wet-exhaust manifolds

John Deere PowerTech radiator-cooled, dry-exhaust manifold engines (TF and HF models) are engineered to run vessel auxiliaries such as pumps, winches, deck cranes, and hydraulics. With displacements from 4.5 liters to 13.5 liters and power ratings from 74 to 448 kW (99 to 600 hp), meeting EPA Marine Tier 3 requirements has never been easier.

John Deere PowerTech radiator-cooled, wet-exhaust manifold marine engines (HFM models) are rated to provide dependable auxiliary power for oceangoing vessels and other applications that require type approval for marine classification societies. With power ratings from 242 to 373 kW (325 to 500 hp), these engines are ready to work.

Engine model	Emissions		Rated power		Rated speed
	IMO	EPA	kW	hp	rpm
IMO & EPA compliant engines					
4045TF285	Tier 2	Tier 3	74	99	2200
6068HF485	Tier 2	Tier 3	187	251	2200
6090HFM85	-	Tier 3	242	325	2000
6090HF485	Tier 2	Tier 3	280	375	2200
6135HFM85	-	Tier 3	373	500	2000
6135HF485	Tier 2	Tier 3	448	600	2100



Effortless engine power



Easy to install

John Deere marine engines can be configured for propulsion, generator set, and auxiliary applications. Our full range of reliable, fuel-efficient engines have the power to meet your needs. We also offer a choice of options and accessories to fit many applications.

The simple and clean design of John Deere marine engines allows direct access to connection and service points for the cooling system, fuel supply, lubrication system, and exhaust system.

- Compact design for easy installation
- Front PTO with electronic clutch to drive pumps and accessories
- SAE flywheel and housing options
- Wet- or dry-exhaust elbows
- Keel-cooled or heat exchanger configurations

See your John Deere marine dealer or engine distributor for options to combine the high power density of our 9.0L and 13.5L SFM marine engines in dual-circuit keel-cooled applications.



Easy to operate

Prewired instrument panel provides electronic control of engine functions and instant access to engine diagnostics.

- Includes tachometer, oil pressure, voltmeter, water temperature, and hour meter gauges
- Electronic information display is bright and easy to read
- Multilanguage text display

Easy to maintain

- Internal coolant passages eliminate hoses and fittings
- Dipstick and oil fill on either side
- Poly-vee belt drive provides durability
- Washable, dry-type air filters can be serviced quickly and easily
- Replaceable wet liners, precision-joint connecting rod/cap joint, and replaceable valve seats make rebuilding easy
- Gear timing maintenance-free during entire life of engine



Customer support

You can rely on us

The John Deere dealer network is built to support you. We offer global support with over 4,000 service locations and a worldwide parts distribution system. Only authorized John Deere service technicians have the expertise to ensure top performance of your John Deere engine. Our technicians complete specialized training on John Deere engine technology, diagnostic tools, and service techniques.

Locate your closest John Deere marine dealer or engine distributor at JohnDeere.com/Dealer.



John Deere PowerAssist™ app

This free app provides serial-specific information for your John Deere engine. Simply scan or enter your John Deere engine serial number to retrieve option codes, manuals, emissions certificates, ECU information, and much more. Get started by installing PowerAssist onto your iOS or Android™ mobile device. Don't have a mobile device? Go to JohnDeere.com/EngineSupport and sign in to the engine information search online product database.

Available worldwide in English only.
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The right parts. At the right price. Right now.

Whether you've got a brand new John Deere marine engine, one that's been working for years, or a mixed fleet — John Deere is ready to keep you up and running. Our dealers keep maintenance and repair parts in stock to get you back on the water quickly. You can rely on us for your choice of genuine John Deere parts, remanufactured components, and all-makes products. Contact your authorized John Deere marine dealer or engine distributor for the best recommendation to fit your needs, or visit JDParts.com.

Fast. Convenient. Online.
JDParts.com



Confidence is built in

John Deere provides one of the best warranties in the business. Our 2-year/2,000-hour standard warranty applies not only to the new OEM engine but also to John Deere parts and accessories added by a John Deere engine distributor.*

Warranty support when you need it

Register your John Deere marine engine and enable your John Deere marine dealer or engine distributor to respond should you need a warrantable repair.† Registering your engine at JohnDeere.com/OEMWarranty gives us the information needed to stock the right service parts, maintenance products, and servicing tools.

* When sold by John Deere, its authorized dealers and distributors, and delivered to the first retail purchaser.

† See specific OEM product warranty language for applicable terms and conditions. Refer to the John Deere new marine engine warranty for complete warranty coverage details.

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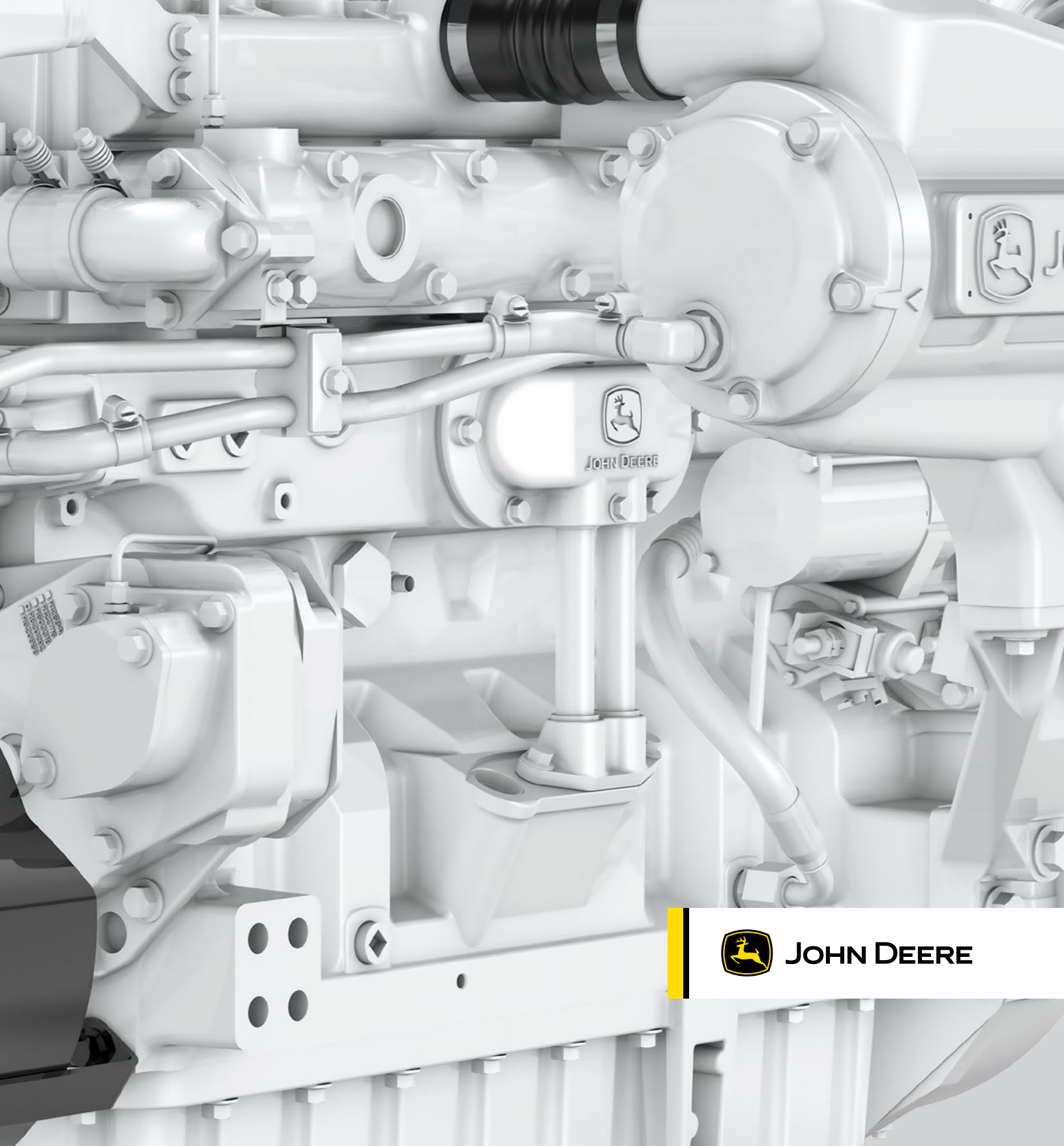
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