ENGINE Spec Guide

INCLUDES THE MOST UP-TO-DATE ENGINE SPECS FOR THE ON- AND OFF-HIGHWAY MARKETS

A SUPPLEMENT TO *OEM Off-Highway*
May/June 2023

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AC BUSINESS MEDIA

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JOHN DEERE ISUZU SCANIA HATZ DIESEL

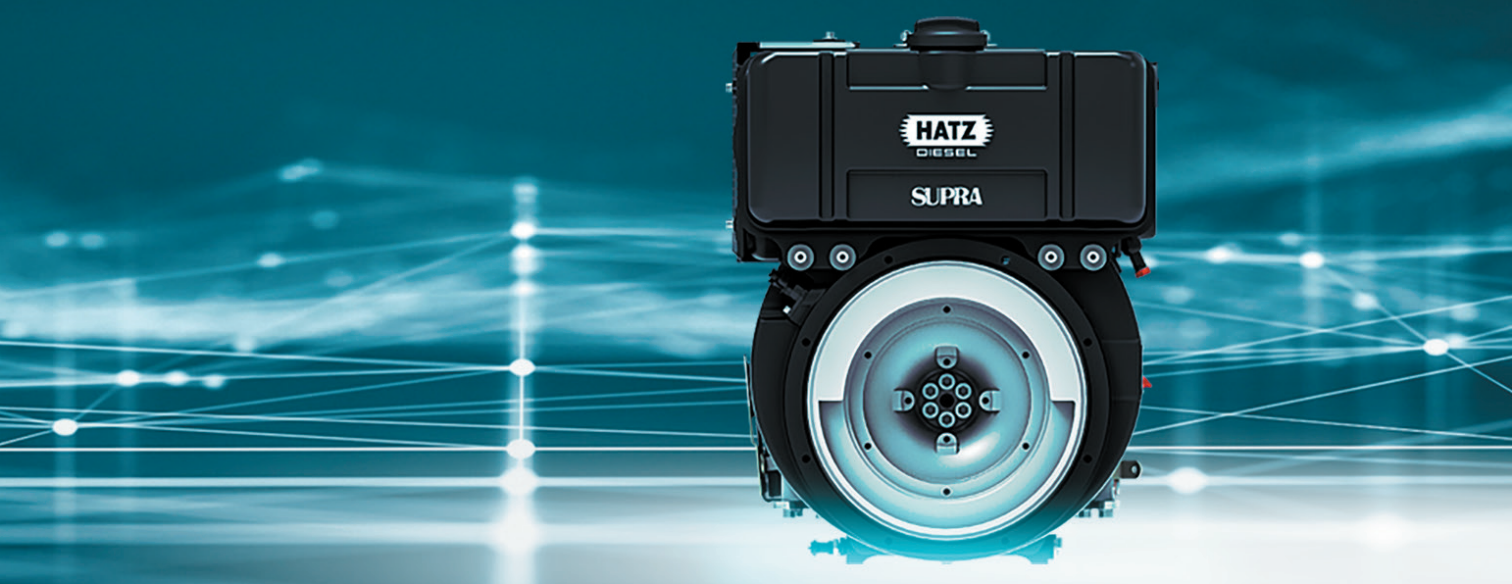
Digital Solutions

DIGITALIZATION

Efficiency and Profitability for Compact Machines

Hatz continues to expand its digital offerings, with Hatz Digital Solutions. This technology makes it possible to maximize the profitability of operating equipment and for efficient fleet management. This fleet management system supplies structured information such as engine health and operating status, fuel consumption, and the physical location of digitally connected Hatz Engines. Hatz Digital solutions is the perfect addition to full range of Hatz Electronically controlled engines, Hatz Powered Equipment and Fleets.

Visit us at Hatznorthamerica.com



CREATING POWER SOLUTIONS

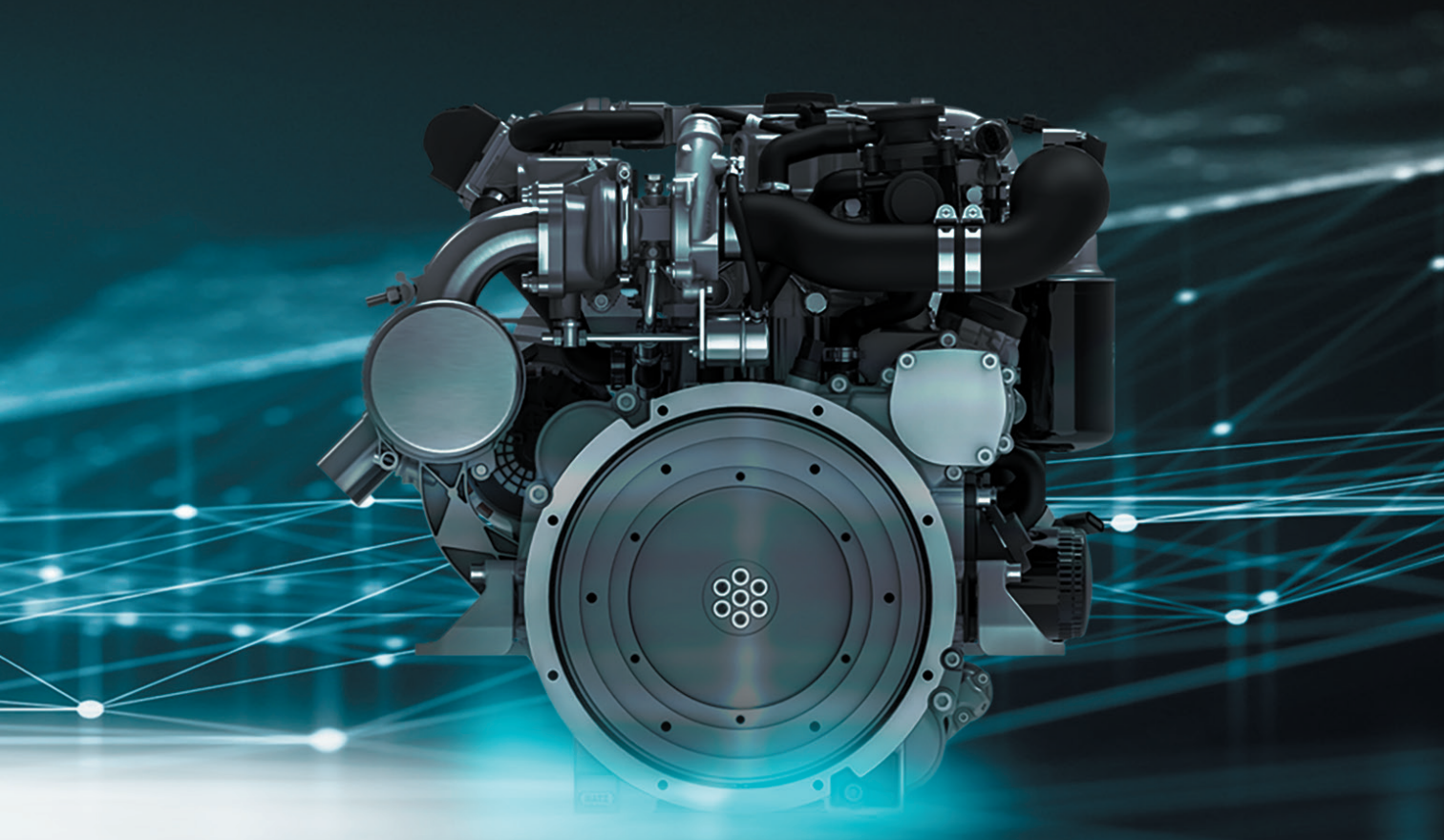
HATZ

H-Series
1500-3000 rpm
25-74hp
EU V, US T4f

1D90E
1500-3000 rpm
7.6-14.1hp
EU V, US T4f

1B30E
1500-3600 rpm
2.8-6hp
EU V, US T4f

Hybrid Generator
28V or 56V DC
120V AC
EU V, US T4f



hp Range Category	hp	Disp. liters (l)	Torque (lbs.-ft.)	Fuel	Tier Reg. Compliant Emissions Certifications	Aftertreatment
0 - 10 hp	1.5	0.347		D	Tier 4 /Stage V	DOC
	1.75	0.08	3.30	gas	EPA Phase III, CARB Tier III	N/A
	5	0.169		G	Tier III, Phase 3	
	6.0	0.347	10.8	D	Tier 4/Stage V	DOC
	6.9	0.325	13.0	D	Tier 4	NA
	8.4	0.270	14.1	G	EPA Phase 3	
	10.6	0.52	18.9	D	Tier 4/Stage V	DOC
11 - 24 hp	11.7	0.390	19.5	G	EPA Phase 3	
	11.8	0.51	22	D	Tier 4 Final, Stage 5	-
	11.8 - 23.9	0.99 - 1.6	36.5 - 45.1	D	EPA Tier 4F	N/A
	12.0	0.952		diesel	Tier 4 Final	No
	14	0.408		G	Tier III, Phase 3	
	15.00	0.48	24.50	gas	EPA Phase III	catalyst
	16	0.479		G	Tier III, Phase 3	
	16.8	0.599	27.9	D	Tier 4	NA
	17.8	0.76	32	D	Tier 4 Final, Stage 5	-
	23.8	1.3		diesel	Tier 4 Final	No
	24.9	0.779	40.2	G	EPA Phase 3/CARB Tier 3	
25 - 48 hp	25	1.1	63	D	Tier 4 Final, Stage 5	-
	25	2.2	92	D	Tier 4 Final	-
	27.4	0.960	46.5	Compressed Natural Gas	EPA Phase 3, CARB Phase 4, Stage V	Three Way Catalyst
	28	0.810		G	Tier III, Phase 3	
	33.0	1.49	87.4	D	Tier 4, Stage V	DOC + DPF
	36	0.990		G	Tier III, Phase 3	
	40 - 48	2.2	117.3 - 158.6*	D	EPA Tier 4F	DOC
	47.6	2.19	107.8	D	EPA Final Tier 4 / Stage 5	EGR / DPF
	48	1.7	123	D	Tier 4 Final, Stage 5	DOC, DPF
	48 - 73	2.9	142 - 224	D	EPA Final Tier 4 / EU Stage V	DOC/DPF
49 - 74 hp	49 - 74	2.8	147 - 221	B20	Tier 4 Final/Stage 3B	DOC
	49	2.33	101	D	Tier 3	none
	49.6	1.826	111.0	D	Tier 4, Stage V	DOC + DPF
	50	2.9	108	D	Tier 4 final	DOC
	53.5	2	102.8	Gasoline, LPG		
	53.8	1.568	145.3	D	EPA Final Tier 4 / Stage 5	EGR / DPF
	58	3.2	150.5	D	Tier 3	none
	58.6	1.464	149.7	D	Tier 4/Stage V	DOC, DPF, cEGR
	59	2.8	250	D	EPA Tier 4B, EU Stage V	DOC+DPF
	60	1.80	122	Diesel	Tier 4 Final	DOC
	64	3.62	140	D	Tier 3	none
	64.6	1.464	149.0	D	Tier 2	NONE REQ
	65.2	2.434	146.4	D	Tier 4, Stage V	DOC + DPF
	66.8	2.4	125.2	Gasoline, LPG, NG		
	67	3.62	155	D	Tier 3	none
	70 - 98	3	188.1 - 276.5*	D	EPA Tier 4F	DOC or DOC & SCR
	73.77	3	325	D	EU Stage V	DPF
	74	2.2	199	D	Tier 4 Final, Stage 5	DOC, DPF
	74	3.40	234	Diesel	Tier 4 Final	DOC
	74.3	3.769	198.4	Natural Gas	EPA Tier 2, CARB Tier 3, Stage V	Three Way Catalyst
	74.4	2.091	194	D	EPA Final Tier 4 / Stage 5	EGR / DPF

Dimensions (in.)			Weight Wet (lbs.)	Weight Dry (lbs.)	Family/Series	Model	Company
L	W	H					
13.0	15.1	16.9		130	B Electronicolly Controlled	1B30E - PMG	Hatz
9.4	12.6	11.5		21.6	PLMH	CMXX Commercial 79cc	LCT, Private label
10.8	14.4	14.2		40	Vanguard	160 (h/s)	Briggs & Stratton Corporation
14.7	18.1	15.2		94.4	B vertical, electronically controlled	1B30VE	Hatz
12.3	22.3	18.0		120.0	EA	EA330-E4	Kubota
67.1	55.0	15.0	16.9	16.6	iGX	iGX270	Honda
14.4	16.2	18.9		126.8	B electronically controlled	1B50E	Hatz
91.7	80.1	16.1	19.1	17.6	iGX	iGX390	Honda
16.02	14.61	20.59		126	400 Series	402J-05	Perkins
21.3-22.6*	16.1-20.2*	21.9-26.9*		227-348*	3C Series		Isuzu
21.9	16.7	19.7		192	L Series	L3E	Mitsubishi
14.3	21.3	18.6		87	Vanguard	400 EFI/ETC (h/s)	Briggs & Stratton Corporation
15.5	18.4	17.2		72.0	PLMH	CMXX Commercial 479cc	LCT, Private label
11.0	16.1	17.2		72	Vanguard	Small Block (v/s)	Briggs & Stratton Corporation
13.8	15.8	21.4		120.0	Super Mini	Z602-E4	Kubota
18.90	14.61	20.79		157	C0.7	C0.7	Caterpillar
22.4	17.2	22.5		320	SL Series	S3L2	Mitsubishi
110.2	106.3	13.1	19.4	17.2	GX V-Twin	iGX800**	Honda
19.69	20.20	23.15		240	C1.1	C1.1	Caterpillar
22.7	21.7	28.5		441	2.2	D 2.2 L3	DEUTZ
19.5	15.4	19.8		170.0	Super Mini	WG972-N-E4	Kubota
19.9	18.5	22.9		92	Vanguard	810cc (v/s)	Briggs & Stratton Corporation
30.2	18.3	27.0		373.0	05 Series	V1505T-CR-E5	Kubota
23.6	20.2	24.7		125	Vanguard	BIG BLOCK™ (v/s)	Briggs & Stratton Corporation
29.8	24.05	30.4		397	4L Series		Isuzu
28.6	22.4	34.0		473.0	TNV	4TNV88C	YANMAR
28.06	21.06	28.42		419	C1.7	C1.7	Caterpillar
28	24	38	882		EWX 2.9L	3029HI530	John Deere Power Systems
28.5	24.6	31.3		538	F	QSF2.8	Cummins
24.09	17.64	26.5		478	2011	D 2011 L3i	DEUTZ
29.4	21.1	29.2		432.0	03 Series	D1803-CR-TE5	Kubota
26.7	19	27.8		485	2.9	D 2.9	DEUTZ
24.75	24.63	28.96	443		Power Solutions International (PSI)	Industrial	PSI
24.0	22.8	34.4		436.0	TNV	3TN86CHT	YANMAR
27.87	26.22	31.34		611	914	D 914 L3	DEUTZ
23.0	22.0	23.7		309.0	H	3H50TICD	Hatz
1.0153	0.9300	1.2757		551	F28	F28	FPT Industrial
29.8	21.9	28.7		529	G2	D18	Hyundai Doosan Infracore Co., LTD
28.82	17.64	28.07		595	2011	D 2011 L4i	DEUTZ
23.0	22.4	23.7		293.0	H	3H50TI	Hatz
33.1	21.3	28.9		514.0	03 Series	V2403-CR-TE5	Kubota
24.75	24.63	29.2	421		Power Solutions International (PSI)	Industrial	PSI
28.35	19.13	28		595	2011	D 2011 L4w	DEUTZ
35.87	29.7	33.35		728	4J Series		Isuzu
32.2	26.7	47.5		1047	DIESELMAX 430 TCAE	TCAE	JCB Power Systems
31.81	21.06	29.84		534	400 Series	404J-E22TA	Perkins
33.0	25.9	32.5		922	G2	D34	Hyundai Doosan Infracore Co., LTD
27.6	22.8	31.5		635.0	V3 Series	WG3800-N-E3	Kubota
26.4	21.9	38.0		535.0	TNV	4TN86CHT	YANMAR

FUEL KEY:
G = Gas
D = Diesel
P = Propane
B#= % of Biofuel
TF= Tri-Fuel
NG= Natural Gas
CNG= Compressed Natural Gas
LNG= Liquefied Natural Gas
RNG= Renewable Natural Gas
LPG= Liquefied Petroleum Gas

ENGINE Spec Guide

Many engines have constant-speed capabilities. For more information about this, contact the engine manufacturer.

hp Range Category	hp	Disp. liters (l)	Torque (lbs.-ft.)	Fuel	Tier Reg. Compliant Emissions Certifications	Aftertreatment
75-99 hp	75	2.9	192	D	Tier 4 final	DOC
	75	3.4	424	D	EPA Tier 4B, EU Stage V	DOC+DPF
	75 - 85	4.5L	203 - 223	D	EPA Tier 3 / EU Stage III A	N/A
	76.8	3		Gasoline		
	78	4.3	201.4	D	Tier 3	none
	80	3.40	200	LPG	Stage5	Three-way Catalyst
	83	3.2	320	D	EPA Tier 3, EU Stage IIIA	E-EGR
	84.48	4.4	267	D	UN III	Not Required
	85.4	1.952	197.7	D	Tier 2	NONE REQ
	86	3.6	354	D	EPA Tier 4B, EU Stage V	DOC+DPF+SCR
	88.5	4.04	258	D	Tier 3	none
	88.5	3.33		diesel	Tier 3 Stationary Emergency	No
	90	4.5	400	D	EPA Tier 3, EU Stage IIIA	I-EGR
	91	3.62	206.5	D	Tier 3	none
	91.99	4.4	301	D	UN III	Not Required
	93.9	3.769	213.9	LPG	EPA Tier 2, CARB Tier 3, Stage V Ready	Three Way Catalyst
	95	3.2	380	D	EPA Tier 3, EU Stage IIIA	I-EGR
	97.2	5.4	248.6	D	Tier 3	none
	99	4.5L	270 - 282	D	EPA Tier 3 / EU Stage III A	N/A
100-157 hp	100	3.62	258.2	D	Tier 3	none
	100 - 140	4.5L	246 - 399	D	EPA Final Tier 4	DOC/SCR
	101 - 173	4.2	295 - 498	D	EPA Tier 3 compl. / EU Stage IIIA compl.	not required
	102	3.6	433	D	EPA Tier 4B, EU Stage V	DOC+DPF+SCR
	103.2	3.8	328.2	D	EPA Final Tier 4 / Stage 5	EGR / DPF / SCR
	108.62	4.8	381	D	EU Stage V	DOC/SCRF
	115.9	3.77	284.0	D	Tier 4 / Stage V	DOC + DPF + SCR
	116	6.5	276.6	D	Tier 3	none
	120.6	4.6	444	D	EPA Final Tier 4 / Stage 5	EGR / DPF / SCR
	121	4.5	549	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	121 - 173	4.5	347 - 520	B20	Tier 4 Final/Stage IV	DOC-SCR
	124.72	4.4	406	D	EPA Tier 4	SCR
	125 - 173	4.5L	396 - 492	D	EPA Final Tier 4	DOC/SCR
	126	4.5	525	D	EPA Tier 3, EU Stage IIIA	I-EGR
	127 - 173	4.8	370 - 590	D	EPA Tier 4i compl./ EU Stage IIIB compl.	SCR Technology
	130	3	350	D	Euvo VI E	EGR + DOC + SCRoF + SCR + CUC
	138	4.04	384	D	Tier 3	none
	140	4.5	645	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	140 - 173	6.8L	397 - 579	D	EPA Tier 3 / EU Stage III A	N/A
	140.8	3.8	405.6	D	EPA Final Tier 4 / Stage 5	EGR / DPF / SCR
	144.83	4.8	413	D	EPA Tier 4	SCR
	150.19	4.8	443	D	EU Stage V	DOC/SCRF
	154	4.1	450	D	Tier 4 final	DPF + SCR
	154 - 173	5.13	498 - 701	D	EPA Tier 4 / EU Stage V	SCR + DPF
	156 - 173	4.5L	455 - 492	D	EPA Final Tier 4 / EU Stage V	DOC/DPF/SCR
	157 - 173	14	548	NG	SI NSPS Compliant Capable	"Rich Burn, 3-Way Catalyst"

Dimensions (in.)			Weight Wet (lbs.)	Weight Dry (lbs.)	Family/Series	Model	Company
L	W	H					
26.7	22	27.8		522	2.9	TD 2.9	DEUTZ
1.1067	0.9316	1.3206		695	F5 series	F34	FPT Industrial
34	24	34	851		M 4.5L	4045TF280	John Deere Power Systems
25.3	18	24.5	417		Power Solutions International (PSI)	Industrial	
32.99	26.22	31.5		677	914	D 914 L4	DEUTZ
27.1	28.0	30.6		677	G2	P34	Hyundai Doosan Infracore Co., LTD
27.9527568	23.26771728	30.62992224			F5 series	F32 MNS	FPT Industrial
32	23.3	34.6		1025	DIESELMAX 444 TC	TC	JCB Power Systems
26.4	22.4	23.7		335.0	H	4H50TI	Hatz
1.1067	0.9316	1.3206		706	F5 series	F36	FPT Industrial
30.16	24.72	32.48		882	2012	TD 2012 L4m	DEUTZ
29.0	23.1	32.8		628	D Series	D04EG	Mitsubishi
31.77165456	25.31496144	38.70078864			NEF series	N45 MNS	FPT Industrial
28.35	20.51	28		593	2011	TD 2011 L4w	DEUTZ
32	23.3	34.6		1025	DIESELMAX 444 TC	TC	JCB Power Systems
27.6	22.8	31.5		635.0	V3 Series	WG3800-L-E3	Kubota
28.543308	23.622048	31.2992136			F5 series	F32 MNT	FPT Industrial
37.99	25.87	32.83		838	914	D 914 L5	DEUTZ
34	24	34	851		M 4.5L	4045HF280	John Deere Power Systems
28.35	20.98	27.99		593	2011	TCD 2011 L4w	DEUTZ
34	27	42	1191		PWL 4.5L	4045HFC04	John Deere Power Systems
33	26	37		870	Series 900	4R 904 C01	MTU
1.1067	0.9316	1.3206		706	F5 series	F36	FPT Industrial
35.0	24.8	34.2		925.9	TN	4TN101FHT	YANMAR
38.5	30.5	48.9		1367	DIESELMAX 448 TCAE	TCAE	JCB Power Systems
33.3	25.7	46.9		882.0	V3 Series	V3800-CR-TI-E5	Kubota
42.68	26.06	34.25		926	914	D 914 L6	DEUTZ
37.0	25.5	37.0		1190.4	TN	4TN107FHT	YANMAR
1.2648	1.0649	1.6260		886	NEF series	N45	FPT Industrial
34	28.4	38.5		833	B	QSB4.5	Cummins
35	31.5	46		1095	ECOMAX 444 TCAE	TCAE	JCB Power Systems
34	25	45	1257		PSL 4.5L	4045HFC06	John Deere Power Systems
31.77165456	24.2125992	38.26771776			NEF series	N45 MST	FPT Industrial
33	25	36		915	Series 900	4R 924 C02	MTU
1.329903421	1.091202807	1.145452946		567	F1 Series	F1C	FPT Industrial
31.14	24.72	32.40		882	2012	TCD 2012 L4	DEUTZ
1.2648	1.0649	1.6260		886	NEF series	N45	FPT Industrial
44	26	41	1340		E 6.8L	6068HF285	John Deere Power Systems
35.0	24.8	34.2		925.9	TN	4TN101FDT	YANMAR
35	31.5	46		1095	ECOMAX 448 TCAE	TCAE	JCB Power Systems
38.5	30.5	48.9		1367	DIESELMAX 448 TCAE	TCAE	JCB Power Systems
33.5	24.3	34.8		882	4.1	TCD 4.1	DEUTZ
37	34	41		1124	Series 1000	4R 1000 C01	MTU
34	29	39	1257		PSS 4.5L Low Profile	4045CI551	John Deere Power Systems
67.7	36.3	52.9		2970	N	G855/E	Cummins

FUEL KEY:

G = Gas
D = Diesel
P = Propane
B#= % of Biofuel
TF= Tri-Fuel

NG= Natural Gas
CNG= Compressed Natural Gas
LNG= Liquefied Natural Gas
RNG= Renewable Natural Gas
LPG= Liquefied Petroleum Gas

ENGINE Spec Guide

Many engines have constant-speed capabilities. For more information about this, contact the engine manufacturer.

Isuzu 90 to 100% pre-validated Open GenSet Power Units: Now come in three sizes, to save OEMs and Distributors time, money, inventory, and engineering resources.

Pre-Validated Reliable Power

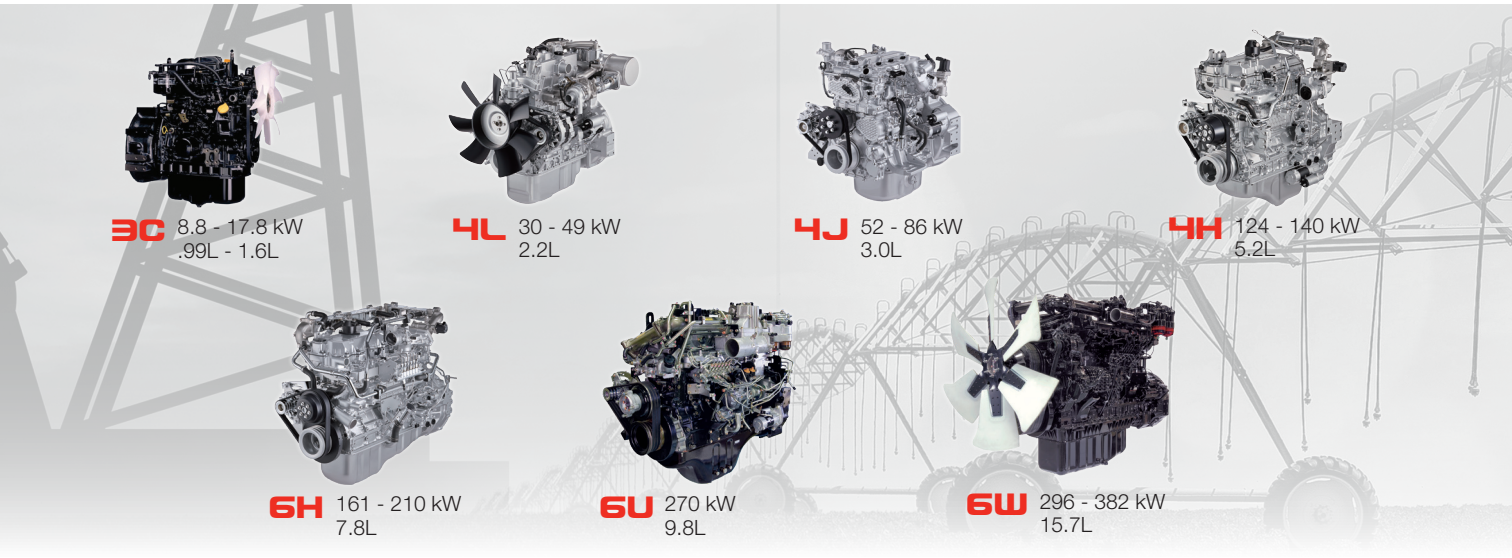
Isuzu Open GenSet-Ready Power Units now come in three sizes: 4J, 4H and 6H. As delivered, all are at least 90% pre-validated. Our 4J-Series is equipped as a 3.0L, 4 Cylinder, 71 kW (95 HP) constant speed @1800 RPM Diesel engine. The 4H-Series is equipped with a 5.2L, 4 Cylinder, 127.4 kW (171 HP) constant speed @1800 RPM and the 6H-Series 7.8L, 6 Cylinder, 194 kW (260 HP) @1800 RPM. These are all Tier 4 Final Certified and branded under Isuzu REDTech™ (Reliable, Eco-Friendly, Durable, and Technologically Advanced Diesel Technology). Isuzu Open GenSet-Ready Power Units are built using all components and features necessary to successfully meet all installation testing criteria associated with long engine life while also maintaining optimized performance - Isuzu REDTech™ Power Units have been engineered for use with several different generator manufacturers' products.

Durable and Eco-friendly GenSet Power

The standard power unit packages are engineered to include an air intake system with dual element air cleaner, exhaust gas after-treatment system, a complete cooling package, vibration isolators (engine and cooling package) and all engine filters. The power unit engine control module and wiring harness incorporates oil pressure, coolant temperature, intake air pressure, and temperature and

ISUZU

The **power** behind it all.™



Technologically

engine speed sensors and shutdowns. These complete power units can also be assembled to a customer supplied design of pre-validated skid base/generator combination, resulting in a 100% pre-validated Open GenSet Power Unit.

Isuzu 4JJ1X GenSet-Ready Power Unit

Pre-tested Durable Power – Saving Engineering Resources, Time and Money While Minimizing Inventory

All models of Isuzu REDTech™ Open GenSet Power Units have also been designed with a generator ready skid base that has been 100% validated for one or more selected generator model/frame lines. If you use one of these complete (GenSet-Ready) Isuzu REDTech™ designs (power unit with cross member, mounting/isolators and optional controller) with a pre-validated generator, it is possible for immediate turn-a-rounds on inventory. In addition, various cross members for mounting as many as seven different common generator brands/models to the power unit have been pre-engineered. When combined with a pre-validated 4J, 4H, or 6H Isuzu REDTech™ Open GenSet Power Unit, all that remains is a few days of vibration testing. This could also help reduce inventory by using pre-validated Isuzu REDTech™ Open GenSet-Ready Power Units that have been pre-engineered for several generator manufacturers' products.

There are over 28 million reliable, eco-friendly, durable and technologically advanced Isuzu engines worldwide. Our Tier 4 and Stage V engines and power units are clean, quiet and fuel efficient - meeting critical requirements in agricultural, construction, forestry and rental markets. Contact your local Isuzu Distributor to experience technologically advanced power today!
Ask about our new GenSet ready power units! www.IsuzuEngines.com

4LE2X P/U
Tier 4 Final Power Unit

4JJ1X
Genset Ready
Tier 4 Final Power Unit

4HK1X
GenSet Ready
Tier 4 Final Power Unit

New 6HK1X
GenSet Ready
Tier 4 Final Power Unit

Advanced

ISUZU DIESEL
ISUZU REDTECH™
Reliable | Eco-friendly | Durable | Technologically Advanced

hp Range Category	hp	Disp. liters (l)	Torque (lbs.-ft.)	Fuel	Tier Reg. Compliant Emissions Certifications	Aftertreatment
155 - 173 hp	155.2	4.26	479.1	D	Tier 4 / Stage V	DOC + DPF + SCR
	159	2.3	400	D	Euro 6 d-temp	ec-EGR + DOC +SCRoF + CUC
	160 - 173	4.6	612	D	Stage 3B	EGR
	166 - 173	5.2	498.5	D	EPA Tier 4F	DOC & SCR
	170	4.5	710	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	170.3	4.6	593.7	D	EPA Final Tier 4 / Stage 5	EGR / DPF / SCR
	173	4.8	509	D	EU Stage V	DOC/SCRF
	173	4.8	494.2	D	Tier 3	none
174 - 301 hp	174 - 275	6.4	516 - 811	D	EPA Tier 3 compl. / EU Stage IIIA compl.	not required
	175	5.1	597	D	Tier2/Stage 2	
	175 - 190	8.3	395 - 555	NG	None	NA
	177	2.3	450	D	Euro 6 d-temp	ec-EGR + DOC +SCRoF + CUC
	179.8	5.7	316.7	Gasoline		
	180	3	430	D	Euro VI D	ec-EGR + DOC +DPF+SCR+CUC
	180 - 275	6.8L	509 - 756	D	EPA Tier 3 / EU Stage III A	N/A
	186	4.5	750	D	Euvo VI E	DOC + DPF + SCR + CUC
	189	5.90	593	Diesel	Tier 4 Final	DOC + SCR
	201	4.4	609	D	Tier 4 Final, Stage 5	DOC, DPF, SCR
	207.8	4.6	593.7	D	EPA Final Tier 4 / Stage 5	EGR / DPF / SCR
	208	6.06	597	D	Tier 3	none
	210.9	5.018	651.3	D	Tier 4 / Stage V	DOC + DPF + SCR
	211	3	470	D	Euro VI D	ec-EGR + DOC +DPF+SCR+CUC
	218	5.1	671	D	Tier 4Final/Stage 4	SCR
	220	6.7	520	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	220	6.7	800	D, NG	Euvo VI E	DOC + DPF + SCR + CUC
	216 - 282	7.8	796.5	D	EPA Tier 4F	DOC & SCR
	228	5.2	700	D	Tier 4 final	DOC/DPF + SCR
	238	5.1	719	D	Stage 5/Tier 4Final	SCR, DPF+ DOC
	240	6.7	560	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	260	6.7	1160	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	265 - 301	19	1109 - 1160	NG	SI NSPS Compliant Capable	"Rich Burn, 3-Way Catalyst"
	268	7.2	774.4	D	Tier 3	none
	275	9.3	951	D	EU Stage V, Korean Tier 5	SCR & DPF
	279 - 301	9.0	1453	D	Stage V, Tier 4	SCR
	280	8.9	900	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	286	7.60	943	Diesel	Tier 4 Final	DOC + SCR
	286	6.7	1150	D	EPA Tier 4B, EU Stage IV	DOC + SCR
	291	9.3	977	D	China Phase IV	SCR & DPF
	295	7.755	737.6	H	Stage 5	DOC/SCR
	297	6	361	Gasoline		
	300 - 301	12.7	1050 - 1650	D	EPA Tier 2 compl. / EU Stage II compl.	not required
	301	8.7	1300	NG	Euro VI E	3-Way Catalyst

Dimensions (in.)			Weight Wet (lbs.)	Weight Dry (lbs.)	Family/Series	Model	Company
L	W	H					
35.4	25.6	38.3		1323.0	09 Series	V4309-TIE5	Kubota
27.12598512	22.67716608	32.63779632			F1 Family	S23 ENT	FPT Industrial
36.9	34.5	36.5			D08	D0834	MAN Truck & Bus SE
40.3	36.6	42.1		1058	4H Series		Isuzu
1.2648	1.0649	1.6260		886	NEF series	N45	FPT Industrial
37.0	28.7	37.0		1212.5	TN	4TN101FTT	YANMAR
38.5	30.5	48.9		1367	DIESELMAX 448 TCAE	TCAE	JCB Power Systems
33.7	25.1	34.2		1102	2013	TCD 2013 L4 2v	DEUTZ
43	27	38		1168	Series 900	6R 906 C01	MTU
39	34	39		1127	Industrial	TAD541VE	Volvo Penta
55	30	50		1650	C	GTA8.3/SLB	Cummins
27.12598512	22.67716608	32.63779632			F1 Family	S23 ENT	FPT Industrial
30.36	23.74	33.71	432		Power Solutions International (PSI)	Industrial	PSI
28.26771744	23.18897712	34.09448928			F1 Family	S30 ENT	FPT Industrial
44	24	42	1495		Plus 6.8L	6068HF485	John Deere Power Systems
1.323703405	1.212103118	1.410503628		882	NEF Series	N45	FPT Industrial
43.4	32.0	46.1		1,422	DL06	DL06	Hyundai Doosan Infracore Co., LTD
32.40	29.40	35.30		1179	C4.4	C4.4	Caterpillar
37.0	28.7	37.0		1212.5	TN	4TN101FTT	YANMAR
40.08	25.94	35.16		1124	2012	TCD 2012 L6	DEUTZ
35.4	25.8	38.5		1366.0	09 Series	V5009-TIE5	Kubota
28.26771744	23.18897712	34.09448928			F1 Family	S30 ENT	FPT Industrial
39	34	39		1318	Industrial	TAD572VE	Volvo Penta
41.6	30.3	35.5		1150	B6.7N	B6.7N 220	Cummins Natural Gas
1.705004385	1.212103118	1.432203684		1168	NEF Series	N67	FPT Industrial
54.61	36.18	46.46		1494	6H Series		Isuzu
36.8	29.5	37.5		1314	5.2	TCD 5.2 L4	DEUTZ
38	32	39		1239	Industrial	TAD583VE	Volvo Penta
41.6	30.3	35.5		1150	B6.7N	B6.7N 240	Cummins Natural Gas
1.6461	1.0649	1.6260		1169	NEF series	N67	FPT Industrial
79.3	41.6	67.3		4840	K	KTA19GC/E	Cummins
45.4	27.3	39		1345	2013	TCD 2013 L6 2V	DEUTZ
47.8	38.7	47.6		2094	Industrial	DC09 311A	Scania
55.7	31.8	43.4			D15	D1556	MAN Truck & Bus SE
44.3	36	47.7		1625	L9N	L9N 280	Cummins Natural Gas
46.9	36.5	46.1		1,885	DL08	DL08	Hyundai Doosan Infracore Co., LTD
41.81102496	27.04724496	41.29921392			NEF series	N67 ENT	FPT Industrial
47.8	38.7	47.6		2094	Industrial	DC09 331A	Scania
47.7	33.1	41.8		1598	G7.8	TCG 7.8	DEUTZ
30.36	23.74	33.71	432		Power Solutions International (PSI)	Industrial	
57	36	54		2844	Series 60	S60 (12.7 L)	MTU
2.221155713	1.571704042	1.705004385		1918	Cursor Series	Cursor 9 NG	FPT Industrial

FUEL KEY:
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RNG= Renewable Natural Gas
LPG= Liquefied Petroleum Gas

ENGINE Spec Guide

Many engines have constant-speed capabilities. For more information about this, contact the engine manufacturer.

Introducing:

E-MACHINE

Scania's New Hybrid Power Solution.

SCANIA'S ELECTRIFIED POWER SYSTEMS WILL GIVE CUSTOMERS A HYBRID AND FULLY ELECTRIC SOLUTION.

Scania's in-house developed electric solutions draw on Scania´s long experience, knowledge, and technology from electrifying on-road vehicles, resulting in high system reliability and outstanding performance in a compact design. This also facilitates builder design, installation, and maintenance. Like all Scania power systems, the electric components are modular and scalable, and thereby suitable for a number of different applications.

All components work seamlessly together and are controlled with a common management system, while standard mechanical interfaces simplify integration with external components. With impeccable interaction between different components to achieve full system integration, electrifying equipment has never been smoother.

HYBRID ELECTRIC

Scania´s hybrid electric power systems allow for the engine and e-machine respectively to be run together or as standalone power sources. The adapted speed range of the e-machine means that a reduction gear can be avoided, minimizing energy loss and facilitating equipment design and installation. Altogether, the system enables improved powertrain performance with exceptional torque and response directly from idling, lowered fuel consumption that reduces operational cost and emission, as well as minimized noise when and where needed.

FULLY ELECTRIC

The high-power density e-machine offers maximum torque and response directly from start. In combination with state-of-the-art batteries and other adjacent components, it eliminates tailpipe emissions and all but removes powertrain noise. In addition, the low maintenance requirements help reduce operational cost.

Technical Information

This system is a single-source solution from Scania including battery, E-machine, combustion engine and all related components.

E-MACHINE

POWER
230 kW (313 mhp) continuous;
280 kW (381 mhp) peak @ 1,500 rpm

WEIGHT
250 kg (551 lb)

DIMENSIONS (L x W x H)
490 x 610 x 590 mm (19.3" X 24" x 23.2")

BATTERY PACK

BATTERY TECHNOLOGY
Lithium-Ion, NMC

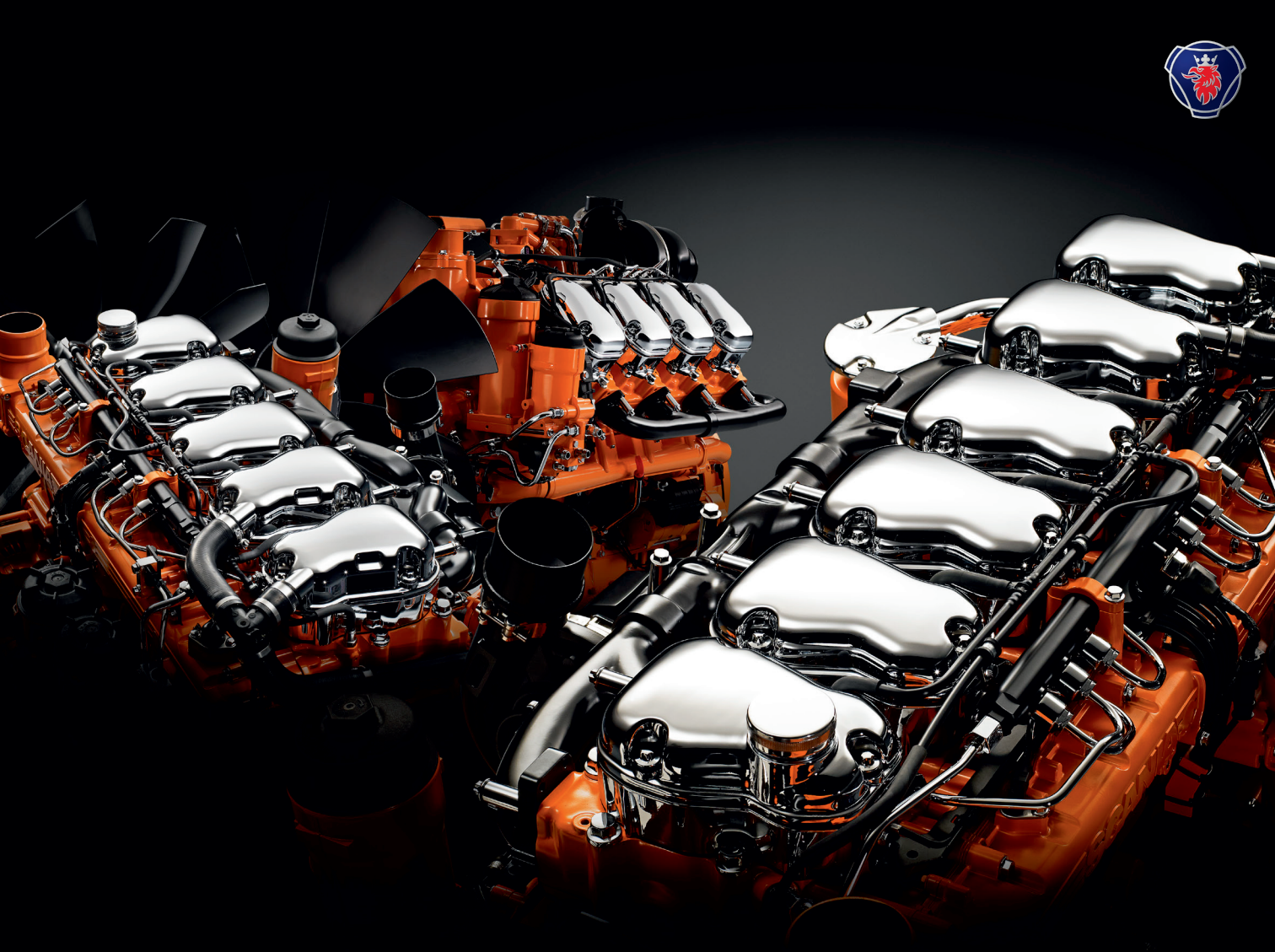
NSTALLED ENERGY
104 kWh

WEIGHT
620 kg (1,367 lb)

DIMENSIONS (L x W x H)
775 x 639 x 895 mm (30.5" x 25.2" x 35.2")

SCANIA

www.scaniausa.com
na.contact@scania.com
210-403-0007
@scaniausa



SUSTAINABLE POWER

YEARS AHEAD OF TOMORROW'S STANDARDS

The Scania engine platform features compact dimensions and a common footprint which enhances flexibility, simplifies installation and shortens time-to-market. Last but not least: Proven reliability, outstanding operating economy and industry-leading fuel efficiency vouches for long-term profitability and satisfied customers.

www.scaniausa.com

SCANIA

hp Range Category	hp	Disp. liters (l)	Torque (lbs.-ft.)	Fuel	Tier Reg. Compliant Emissions Certifications	Aftertreatment
238 -301 hp	228	5.2	700	D	Tier 4 final	DOC/DPF + SCR
	238	5.1	719	D	Stage 5/Tier 4Final	SCR, DPF+ DOC
	240	6.7	560	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	252	7.7	856	D	Tier2/Stage 2	
	254	6.7	1160	D	EPA Tier 4B, EU Stage IV	DOC + SCR
	260	8.9	660	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	260	6.7	1160	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	265 - 301	19	1109 - 1160	NG	SI NSPS Compliant Capable	"Rich Burn, 3-Way Catalyst"
	268	7.2	774.4	D	Tier 3	none
	272	8.7	1300	D	EPA Tier 3, EU Stage IIIA	I-EGR
	275	9.3	951	D	EU Stage V, Korean Tier 5	SCR & DPF
	279 - 301	9.0	1453	D	Stage V, Tier 4	SCR
	280	8.9	900	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	286	7.60	943	Diesel	Tier 4 Final	DOC + SCR
	286	6.7	1150	D	EPA Tier 4B, EU Stage IV	DOC + SCR
	291	9.3	977	D	China Phase IV	SCR & DPF
	295	7.755	737.6	H	Stage 5	DOC/SCR
	297	6	361	Gasoline		
	300 - 301	12.7	1050 - 1650	D	EPA Tier 2 compl. / EU Stage II compl.	not required
	301	8.7	1300	NG	Euro VI E	3-Way Catalyst
302 -450 hp	302	7.0	946	D	Tier 4 Final, Stage 5	DOC, DPF, SCR
	313	8.7	1400	D	EPA Tier 3, EU Stage IIIA	I-EGR
	316	9.3	1219	D	China Phase IV	SCR & DPF
	322 - 536	12.0	1856 at 1,00	Diesel	Fuel consumption optimized	none
	335 - 513	12	1250 - 1696	B20	Tier 4 Final/Stage IV	SCR-DPF
	340	6.7	1400	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	348	7.8	1033	D	Stage 5	SCR + DPF
	350	12.7	1227	D	Stage IIIA, China Phase III, India Bharat Stage III, & Brazil MAR-I	none req.
	350 - 600	13.5	1182 - 1881	D	EPA Tier 3 / EU Stage III A	N/A
	354	8.7	1500	D	EPA Tier 3, EU Stage IIIA	I-EGR
	360	10.5	1330	D	Stage 3B	EGR + PM-Filter
	385	11.9	1350	CNG/RNG/LNG	EPA/ARB	3-Way Catalyst
	388	10.8	1437	D	Stage 5/Tier 4Final	SCR, DPF+ DOC
	389 - 602	13.5	2041 at 1400	Diesel	EU Stage V	SCRFilter
	395	10.3	1800	D	EPA Tier 3, EU Stage IIIA	I-EGR
	402 - 550	13.6L	1375 - 1768	D	EPA Final Tier 4	DOC/SCR
	428	12.8	1604	D	Tier 4Final/Stage 4	SCR
	429 - 523	12.8	1549 - 1814	D	Emission FLEX Package ECER96 (Tier 3 equivalent)	not required
	442	12.9	2140	D	EPA Tier 3, EU Stage IIIA	I-EGR
	450	12.7	1615	D	EU Stage V, Korean Tier 5	SCR & DPF

Dimensions (in.)			Weight Wet (lbs.)	Weight Dry (lbs.)	Family/Series	Model	Company
L	W	H					
36.8	29.5	37.5		1314	5.2	TCD 5.2 L4	DEUTZ
38	32	39		1239	Industrial	TAD583VE	Volvo Penta
41.6	30.3	35.5		1150	B6.7N	B6.7N 240	Cummins Natural Gas
48	35	40		1470	Industrial	TAD841VE	Volvo Penta
41.81102496	27.04724496	41.29921392			NEF series	N67 ENT	FPT Industrial
44.3	36	47.7		1625	L9N	L9N 260	Cummins Natural Gas
1.6461	1.0649	1.6260		1169	NEF series	N67	FPT Industrial
79.3	41.6	67.3		4840	K	KTA19GC/E	Cummins
45.4	27.3	39		1345	2013	TCD 2013 L6 2V	DEUTZ
49.33071024	33.54330816	39.68504064			CURSOR series	C87 ENT	FPT Industrial
47.8	38.7	47.6		2094	Industrial	DC09 311A	Scania
55.7	31.8	43.4			D15	D1556	MAN Truck & Bus SE
44.3	36	47.7		1625	L9N	L9N 280	Cummins Natural Gas
46.9	36.5	46.1		1,885	DL08	DL08	Hyundai Doosan Infracore Co., LTD
41.81102496	27.04724496	41.29921392			NEF series	N67 ENT	FPT Industrial
47.8	38.7	47.6		2094	Industrial	DC09 331A	Scania
47.7	33.1	41.8		1598	G7.8	TCG 7.8	DEUTZ
30.36	23.74	33.71	432		Power Solutions International (PSI)	Industrial	
57	36	54		2844	Series 60	S60 (12.7 L)	MTU
2.221155713	1.571704042	1.705004385		1918	Cursor Series	Cursor 9 NG	FPT Industrial
41.89	32.28	35.71		1576	C7.1	C7.1	Caterpillar
49.33071024	33.54330816	39.68504064			CURSOR series	C87 ENT	FPT Industrial
47.8	38.7	47.6		2094	Industrial	DC09 332A	Scania
54.3	33.5	45.7		2,216	6 cylinder	D956	Liebherr Components
51	39	39.37		1916	X	X12	Cummins
1.6461	1.0649	1.6260		1169	NEF series	N67	FPT Industrial
47.8	31.2	41.2		1598	7.8	TCD 7.8	DEUTZ
55.4	33.9	43.8		2310	Industrial	DC13 076A	Scania
53	34	60	3292		Plus 13.5L	6135HF485	John Deere Power Systems
49.33071024	33.54330816	39.68504064			CURSOR series	C87 ENT	FPT Industrial
53.5	36.7	39.4			D20	D2066	MAN Truck & Bus SE
53.4	37.9	50.3		2650	ISX12N	ISX12N 385	Cummins Natural Gas
55	36	45		2449	Industrial	TAD1182VE	Volvo Penta
54.3	33.5	45.7		2,231	6 cylinder	D966	Liebherr Components
51.9685056	34.68504048	43.7007888			CURSOR series	C10 ENT	FPT Industrial
59	35	54	3353		JD14P	6136HI440	John Deere Power Systems
55	34	47		2915	Industrial	TAD1372VE	Volvo Penta
54	39	50		2388	Series 1300	6R 1300 C00	MTU
53.3464584	34.0551192	44.4881904			CURSOR series	C13 ENT	FPT Industrial
54.3	37	47.7		2314	Industrial	DC13 312A	Scania

FUEL KEY:
G = Gas
D = Diesel
P = Propane
B#= % of Biofuel
TF= Tri-Fuel
NG= Natural Gas
CNG= Compressed Natural Gas
LNG= Liquefied Natural Gas
RNG= Renewable Natural Gas
LPG= Liquefied Petroleum Gas

ENGINE Spec Guide

Many engines have constant-speed capabilities. For more information about this, contact the engine manufacturer.

hp Range Category	hp	Disp. liters (l)	Torque (lbs.-ft.)	Fuel	Tier Reg. Compliant Emissions Certifications	Aftertreatment
451 -578 hp	451	12.8	1563	D	Tier2/Stage 2	
	452	12.9	2200	D	Euro VI E	DOC + DPF + SCR + CUC
	456	9.3	1540	D	Tier 4 Final, Stage 5	DOC, DPF, SCR
	460 - 520	12.4	1620 - 1770	D	Stage 3B	EGR
	469	12.8	1755	D	Tier 3/Stage 3A	
	471	12.9	2012	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	524	11.9	1571	D	Stage 5	SCR/DPF + SCR
	524 - 602	13.6L	1840 - 2249	D	EPA Final Tier 4	DOC/SCR
	530	12.9	2400	D	Euro VI E	DOC + DPF + SCR + CUC
	536 - 602	15.6	1918 - 2139	D	Emission FLEX Package ECER96 (Tier 3 equivalent)	not required
	535	12.8	1715	D	Tier2/Stage 2	
	542	12.0	1848	D	Tier 4 final	SCR
	551	16.4	1755	D	China Phase III, India Bharat Stage III	none req.
	551	12.8	1954	D	Tier 4Final/Stage 4	SCR
	554	12.9	2400	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	565 - 602	15.3	2213	D	Stage IV/V, Tier 4f	SCR + EGR
	571	12.9	2500	D	Euro VI D	DOC + DPF + SCR + CUC
	578	16.4	1800	D	China Phase III, India Bharat Stage III	none req.
603-751 hp	603 - 694	18.0	2264 at 1400	Diesel	EPA Tier 4 final	SCRFilter
	604	30		Natural Gas		No
	609	13.5	2033	D	Tier 4 final	SCR
	612	16.4	2384	D	China Phase IV	SCR & DPF
	612	16.1	2137	D	Tier 3/Stage 3A	
	630	18.1	2177	D	Tier 4 Final, Stage 5	DOC, DPF, SCR
	650	16.4	2397	D	EU Stage V	SCR & DPF
	653	15.9	2750	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	681 - 751	18.0	3208 at 1800	Diesel	Fuel consumption optimized	none
	690	12.9	2360	D	Tier 4 Final, Stage 5	DOC, DPF, SCR
	697	15.9	2132	D	Tier 4 final	SCR/DPF + SCR
	700	16.1	2375	D	Tier2/Stage 2	
	700 - 751	18.0L	2448 - 3137	D	EPA Final Tier 4 / EU Stage V	N/A
	702	15.9	2988	D	EPA Tier 4B, EU Stage V	DOC + SCRoF
	710 - 751	38	2480 - 2486	NG	None	NA
752 hp & up	758 - 1006	24.2	3521 at 1500	Diesel	EPA Tier 4 final	SCROnly
	760 - 1005	23.9	2441 - 3024	D	EPA Tier 2 compl.	not required
	796	16.1	2692	D	Stage 5/Tier 4Final	SCR
	800	18.1	2736	D	Tier 4 Final, Stage 5	DOC
	911	20.1	4100	D	EPA Tier 4B, EU Stage V	SCR
	950 - 1500	30	3414 - 4877	B20	Tier 4 Final*	SCR
	1,413 - 1,865	36.0	5442 at 1800	Diesel	EPA Tier 4 final	SCROnly
	1600 - 2025	48.7	5151 - 6047	D	EPA Tier 1 compl./Fuel Optimized	not required
	1875 - 3000	60	6169 - 8866	B20	Tier 2	NA
	2012	80		Natural Gas		No
	2100	78.0	8275	D	Tier 4 Final, Stage 5	SCR
	2742 - 3621	62.0	10564 at 1800	Diesel	EPA Tier 4 final	SCROnly
	3755 - 4023	95.4	11600 - 12429	D	EPA Tier 2 compl./Fuel Optimized	not required

Dimensions (in.)			Weight Wet (lbs.)	Weight Dry (lbs.)	Family/Series	Model	Company
L	W	H					
54	34	48		2855	Industrial	TAD1343VE	Volvo Penta
2.108005422	1.562404019	1.815054668		2639	Cursor Series	Cursor 13	FPT Industrial
44.29	31.14	42.05		1907	1700 Series	1706J-E93TA	Perkins
64.2	38.2	40.6			D26	D2676	MAN Truck & Bus SE
54	34	48		2793	Industrial	TAD1353VE	Volvo Penta
2.1065	1.4741	1.8786		2911	CURSOR series	Cursor 13	FPT Industrial
38.6	37.2	46.1		2194	12.0 V6	TCD 12.0 V6	DEUTZ
59	35	54	3236		JD14X	6136CI440	John Deere Power Systems
2.108005422	1.562404019	1.815054668		2639	Cursor Series	Cursor 13	FPT Industrial
56	40	51		2723	Series 1500	6R 1500 C00	MTU
54	34	48		2855	Industrial	TAD1345VE	Volvo Penta
54.3	33.5	45.7		2167	12.0	TCD 12.0 L6	DEUTZ
53	43.1	47.8		2948	Industrial	DC16 076A	Scania
55	34	47		2915	Industrial	TAD1375VE	Volvo Penta
2.1065	1.4741	1.8786		2911	CURSOR series	Cursor 13	FPT Industrial
57.6	38.5	44.5			D38	D3876	MAN Truck & Bus SE
53.5433088	39.68504064	28.7401584			Cursor family	C13 ENT	FPT Industrial
53	43.1	47.8		2948	Industrial	DC16 076A	Scania
60.9	41.6	50.6		4,034	6 cylinder	D976	Liebherr Components
78	45	68		6603	GSR Series	GS6R2-PTK	Mitsubishi
54.3	33.5	45.7		2183	13.5	TCD 13.5 L6	DEUTZ
55.5	47.2	50.7		3044	Industrial	DC16 337A	Scania
59	35	53		2915	Industrial	TAD1651VE	Volvo Penta
56.61	37.13	48.78		3400	C18	C18	Caterpillar
61.9	44.3	50.7		3000	Industrial	DC16 314A	Scania
2.2894	1.4369	2.1173		3197	CURSOR series	Cursor 16	FPT Industrial
60.9	41.6	50.6		4,034	6 cylinder	D976 (60 hz)	Liebherr Components
54.37	38.14	50.11		2544	C13D	C13D	Caterpillar
45.3	37.2	34.6		2778	16.0 V8	TCD 16.0 V8	DEUTZ
62	35	52		3175	Industrial	TAD1642VE-C	Volvo Penta
69	36	59	4672		JD18X	6180CI510	John Deere Power Systems
2.2894	1.4369	2.1173		3197	CURSOR series	Cursor 16	FPT Industrial
109.2	75.3	86.5		12300	K	KTA38GCSLB	Cummins
73.6	48.3	46.6		4,740	12 cylinder	D9512	Liebherr Components
73	47	51		5326	Series 2000	12V 2000 C02	MTU
66	44	54		3805	Industrial	TWD1683VE	Volvo Penta
56.61	38.15	49.13		3400	C18	C18	Caterpillar
2.5188	1.8445	2.0770		3528	V20 series	V20	FPT Industrial
77.2	54.6	67.6	7535	8031	T	QST30	Cummins
111.2	53.4	62.2		5,485	16 cylinder	D9616 (60 hz)	Liebherr Components
95	63	68		13325	Series 4000	12V 4000 C01	MTU
114.1	62.6	79.2		9121	K	QSK60	Cummins
226	86	98		19191	GSR Series	GS16R2-PTK	Mitsubishi
122.24	63.62	82.99		18028	3516E	3516E	Caterpillar
104.8	70.0	83.7		18,960	12 Cylinder	D9812 (60 hz)	Liebherr Components
144	63	81		23590	Series 4000	20V 4000 C03	MTU

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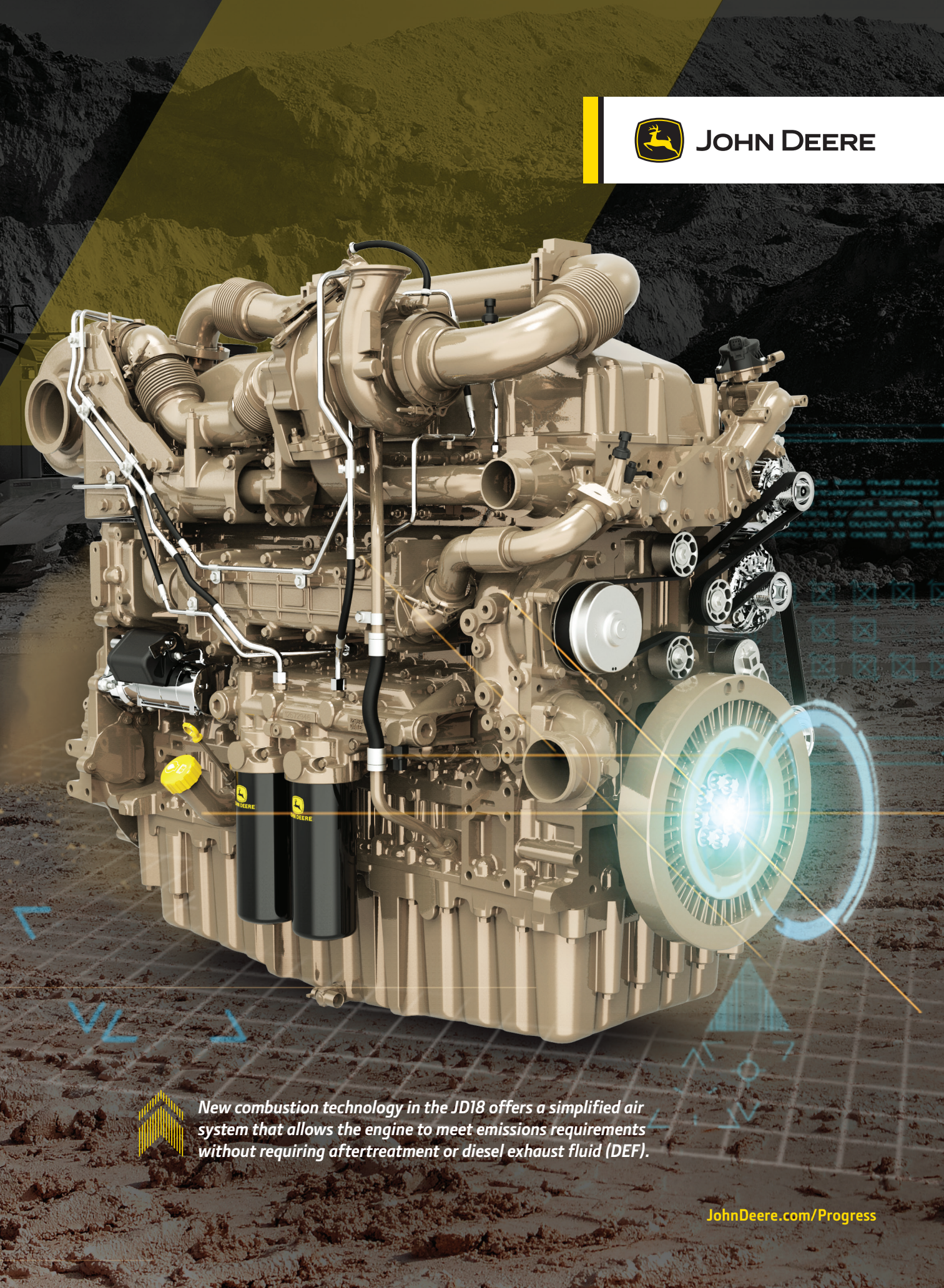
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New combustion technology in the JD18 offers a simplified air system that allows the engine to meet emissions requirements without requiring aftertreatment or diesel exhaust fluid (DEF).
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