

# Industrial Engine Product Guide

Australia / New Zealand







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John Deere irrigation engines know their way around a field. With more than 80 years of proven performance under our belt, you can depend on a John Deere for uninterrupted performance, legendary, durability and unbeatable fuel economy. For an engine that's not afraid of a hard day's work, backed by dealer network committed to keeping you up and running, make your next engine a John Deere.

**Talk to your local dealer today**

# Industrial Engines | Continuous Power Ratings

Engine model	RPM	1400	1600	1800	2000	2200	2400	2500
4024T	HP/kW	33/25	40/30	45/33	47/35	49/37	51/38	52/39**
3029D	HP/kW	32/24	36/27	39/29	42/31	44/33	45/34	46/34
4045D	HP/kW	51/38	57/43	62/46	65/48	68/51	72/54	72/54
4045T1	HP/kW	69/51	78/58	86/64	90/67	96/72	99/74	100/75
4045T2	HP/kW	78/58	89/66	97/72	103/77	107/80	110/82	110/82
4045H	HP/kW	82/61	93/70	101/75	107/80	111/83	112/84	-
6068D	HP/kW	77/57	86/64	93/69	100/75	104/78	108/81	110/82
6068T1	HP/kW	104/76	117/87	127/95	135/101	142/106	144/107	-
6068T2	HP/kW	111/83	129/96	142/106	149/111	157/117	159/119	-
6068T3	HP/kW	128/92	153/114	171/128	176/131	182/136	173/129	
6068H2	HP/kW	138/103	159/119	171/128	183/137	185/138	185/138	-
6068HF475	HP/kW	173/129	195/145	211/157	223/166	226/169	222/166	-
6090H1	HP/kW	229/171	273/203	303/226	326/243	286/213	-	-
6090H2	HP/kW	254/189	285/212	294/220	293/219	292/218	-	-
6135H1	HP/kW	388/289	445/331	462/344	445/332	415/309*	-	-
6135H2	HP/kW	444/331	486/361	491/367	488/364	486/362*	-	-

\* Denotes 2100 RPM

\*\* Denotes 2600 / 2800 RPM

- Power ratings are derated to allow for cooling fan losses
- A 1 year/unlimited hour or 2 year/2,000 hour (whichever occurs first) engine warranty is offered on all engines and commences the date that the machine begins operation
- Specifications subject to change without notice
- Additional engine models and ratings (intermittent and heavy duty) may be available on request. Check with your John Deere engine dealer.

# Engine Identification

Engine model	No. of cylinders	Cubic capacity	Engine aspiration	Fuel system	Off-road emission compliance
4024T	4	2.4L	Turbocharged	Mechanical	Tier 2
3029D	3	2.9L	Naturally Aspirated	Mechanical	NIL
4045D	4	4.5L	Naturally Aspirated	Mechanical	Tier 1
4045T1	4	4.5L	Turbocharged	Mechanical	Tier 1
4045T2	4	4.5L	Turbocharged	Mechanical	Tier 1
4045H	4	4.5L	Turbocharged/Aftercooled	Mechanical	Tier 1
6068D	6	6.8L	Naturally Aspirated	Mechanical	Tier 1
6068T1	6	6.8L	Turbocharged	Mechanical	Tier 1
6068T2	6	6.8L	Turbocharged	Mechanical	Tier 1
6068T3	6	6.8L	Turbocharged	Mechanical	Tier 1
6068H2	6	6.8L	Turbocharged/Aftercooled	Mechanical	Tier 1
6068HF475	6	6.8L	Turbocharged/Aftercooled	Electronic ECU+HPCR	Tier 2
6090H1	6	9.0L	Turbocharged/Aftercooled	Electronic ECU+HPCR	Tier 2
6090H2	6	9.0L	Turbocharged/Aftercooled	Electronic ECU+HPCR	Tier 3
6135H1	6	13.5L	Turbocharged/Aftercooled	Electronic ECU+EUI	Tier 2
6135H2	6	13.5L	Turbocharged/Aftercooled	Electronic ECU+EUI	Tier 3

## FUEL SYSTEM DEFINITIONS:

HPCR – High-pressure common-rail

ECU – Engine control unit

EUI – Electronic unit injector

- 4045H, 6068H2, 6068HF475, 6090H1/2, and 6135H1/2 engines are fitted with air-to-air aftercooling
- Specifications subject to change without notice
- Other engine models are available with alternate emission compliance certification. Check with your John Deere engine dealer.

# Specification Definitions

## Specification A

### Basic engine configuration

- SAE flywheel housing
- SAE flywheel
- Variable speed governing
- Wiring harness and engine control unit (ECU) on electronic engines only
- 12 Volt starter and alternator
- Vertical exhaust elbow, except 4024T
- Energised to run shut off solenoid on mechanical engines
- Operators manual
- First fill of engine oil and coolant



6068T3



3029D

## Specification B

### Power pack configuration

- SAE flywheel housing
- SAE flywheel
- Variable speed governing
- Wiring harness and engine control unit (ECU) on electronic engines
- 12 Volt starter and alternator
- Vertical exhaust elbow, except 4024T
- Energised to run shut off solenoid on mechanical engines
- Operators manual
- First fill of engine oil and coolant
- + **Engine feet**
- + **Engine mounted radiator and fan**
- + **Heavy duty air filter**



4045D



6135H2

## Specification CM (Macquarrie)

### Key start power pack configuration

- Key start power pack configuration
- SAE flywheel housing
- SAE flywheel
- Variable speed governing
- Wiring harness and engine control unit (ECU) on electronic engines
- 12v starter and alternator
- Energised to run shut off solenoid on mechanical engines
- Operators manual
- First fill of engine oil & coolant
- + **Engine feet**
- + **Engine mounted radiator & fan**
- + **Heavy duty air filter**
- + **Engine mounted key start panel featuring an oil pressure & engine temperature Switchgauge, tachometer, hourmeter & voltmeter.**
- + **Throttle cable**
- + **Muffler and raincap**



Spec CM Panel – Mechanical Engines



Spec CM Panel – Electronic Engines

## Specification CK (Kensho K25)

### Key start power pack configuration

- Key start power pack configuration
- SAE flywheel housing
- SAE flywheel
- Variable speed governing
- Wiring harness and engine control unit (ECU) on electronic engines
- 12v starter and alternator
- Energised to run shut off solenoid on mechanical engines
- Operators manual
- First fill of engine oil & coolant
- + **Engine feet**
- + **Engine mounted radiator & fan**
- + **Heavy duty air filter**
- + **Engine mounted Kensho K25 key start panel featuring back lit LCD display of oil pressure, engine temperature, engine speed, engine hours & battery voltage. Remote stop time clock and first out fault indication also included**
- + **Low coolant level shutdown protection**
- + **Throttle cable**
- + **Muffler and raincap**



Spec CK - Mechanical + Electronic Engines

**NOTE:** Product images are for illustration purposes only and actual items may vary in appearance.

# Specification Definitions

## Specification DM (Macquarrie)

### Key start power pack configuration

- SAE flywheel housing
- SAE flywheel
- Variable speed governing
- Wiring harness and engine control unit (ECU) on electronic engines
- 12v starter and alternator
- Energised to run shut off solenoid on mechanical engines
- Operators manual
- First fill of engine oil & coolant
- + **Engine feet**
- + **Engine mounted radiator & fan**
- + **Heavy duty air filter**
- + **Remote mount key start panel featuring an oil pressure & engine temperature Switchgauge, pump discharge pressure Switchgauge, tachometer, hourmeter, charge warning light & remote stop time clock.**
- + **Throttle cable**
- + **Muffler and raincap**



## Specification DK (Kensho K25)

### Key start power pack configuration

- SAE flywheel housing
- SAE flywheel
- Variable speed governing
- Wiring harness and engine control unit (ECU) on electronic engines
- 12v starter and alternator
- Energised to run shut off solenoid on mechanical engines
- Operators manual
- First fill of engine oil & coolant
- + **Engine feet**
- + **Engine mounted radiator & fan**
- + **Heavy duty air filter**
- + **Remote mount Kensho K25 key start panel featuring back lit LCD display of oil pressure, engine temperature, pump discharge pressure, engine speed, engine hours & battery voltage. Remote stop time clock and first out fault indication also included. The pump pressure sender is supplied loose with the control system.**
- + **Low coolant level shutdown protection**
- + **Throttle cable**
- + **Muffler and raincap**





# Comparison Chart

Comparison Chart for Mechanical Engine Spec C & D Instrument panels

Spec CM & DM instrument panels are manufactured by Macquarrie

Spec CK & DK instrument panels are manufactured by Kensho and are based on their K25 specification

Instrument Panel Option	Spec CM	Spec CK	Spec DM	Spec DK
Panel Feature				
Weatherproof Enclosure	No	Yes ✓	Yes ✓	Yes ✓
Oil Pressure Indication	Yes Analogue Gauge ✓	Yes Digital Display ✓	Yes Analogue Gauge ✓	Yes Digital Display ✓
Low Oil Pressure Shutdown	Yes ✓	Yes ✓	Yes ✓	Yes ✓
Engine Temp. Indication	Yes Analogue Gauge ✓	Yes Digital Display ✓	Yes Analogue Gauge ✓	Yes Digital Display ✓
High Engine Temp Shutdown	Yes ✓	Yes ✓	Yes ✓	Yes ✓
Tachometer	Yes Analogue Gauge ✓	Yes Digital Display ✓	Yes Analogue Gauge ✓	Yes Digital Display ✓
Hourmeter	Yes Digital Display ✓	Yes Digital Display ✓	Yes Digital Display ✓	Yes Digital Display ✓
Battery Voltmeter	Yes Analogue Gauge ✓	Yes Digital Display ✓	No Charge light only	Yes Digital Display ✓
Pump Pressure Indication	No	No	Yes Analogue Gauge ✓	Yes Digital Display ✓
Low Pump Pressure Shutdown	No	No	Yes ✓	Yes ✓
High Pump Pressure Shutdown	No	No	Yes ✓	Yes ✓
Remote Stop Timer	No	Yes ✓	Yes ✓	Yes ✓
Low Coolant Level Shutdown	Optional Extra	Yes ✓	Optional Extra	Yes ✓
Low Oil Level Shutdown	Optional Extra	Optional Extra	Optional Extra	Optional Extra
Shutdown Fault Indication	No	Yes ✓	No	Yes ✓

**NOTE:** Product images are for illustration purposes only and actual items may vary in appearance.

# Specification Definitions

## Specification E (Kensho K45)

### Constant Pressure system

The Spec E control system is designed to automatically start & stop the engine by closure of a volt free contact.

Once the engine has started & warmed up the control system will automatically adjust the engine speed to maintain a constant pump discharge pressure.

The rate of speed change & dead band parameters are adjustable to reduce the effects of water hammer & pressure surges in the irrigation system.

The control system incorporates low oil pressure, high engine temperature, low coolant level & pump discharge high & low pressure protection.

The pump pressure sender is supplied loose with the control system.

## Specification F (Kensho K45)

### Constant Speed system

The Spec F control system is designed to automatically start & stop the engine by closure of a volt free contact.

Once the engine has started & warmed up the control system will automatically accelerate the engine to a preset engine speed.

The rate of speed change & dead band parameters are adjustable to reduce the effects of water hammer & pressure surges in the irrigation system.

The control system incorporates low oil pressure, high engine temperature, low coolant level & pump discharge high & low pressure protection.

The pump pressure sender is supplied loose with the control system.

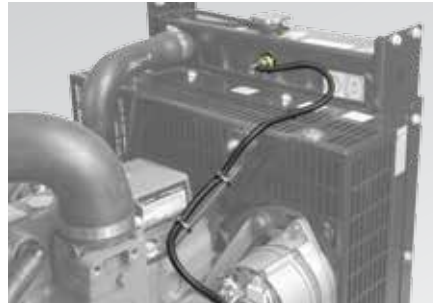


# Optional Equipment



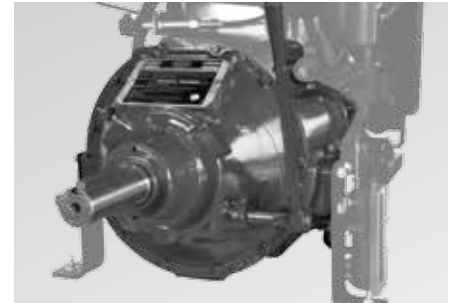
## Low oil level shutdown protection

Shuts down engine if oil level falls to critical level.



## Low coolant level shutdown protection

Shuts down engine if coolant level falls to critical level.



## Overcentre clutch

Allows drive to be mechanically connected/disconnected.



## Auxiliary drive pulley

Enables an additional drive to be taken from gear end of engine.



## Heat Exchanger

Heat Exchanger cooling replaces standard radiator and fan cooling package.



## Specification CM weatherproof cubicle with electric gauges

To protect equipment from the effects of adverse operating conditions. Ideal for installations where panel is more than 2 metres from engine.

**Other accessories**

**are available on request**

**NOTE:** Product images are for illustration purposes only and actual items may vary in appearance.

# Bringing it all together

No matter what the future holds, John Deere Power Systems has the experience and resources to lead the way – providing innovation, precision, performance, and support.



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