

# PSS 4.5L

INDUSTRIAL APPLICATIONS



JOHN DEERE

# RUN WITH THE FACTS

## *John Deere value proposition*

The PowerTech™ PSS 4.5L engine provides optimum off-highway performance in many applications. It features a 4-valve cylinder head, a high-pressure common-rail (HPCR) fuel system, full authority electronic controls, and series turbocharging consisting of a fixed geometry and wastegate turbocharger (WGT). It also uses cooled exhaust gas recirculation (EGR), a proven exhaust filter with diesel oxidation catalyst/diesel particulate filter (DOC/DPF) that can be engine or remote mounted, and a selective catalytic reduction (SCR) system. The PSS engine comes with air-to-air aftercooled aspiration.

The Integrated Emissions Control system with cooled EGR, DOC/DPF, and SCR system meets Final Tier 4/Stage V emissions regulations mandated by the EPA, EU, CARB, many air quality districts, and most nonattainment zones. This is critical to OEMs and rental companies who sell and do business with contractors in these regions.

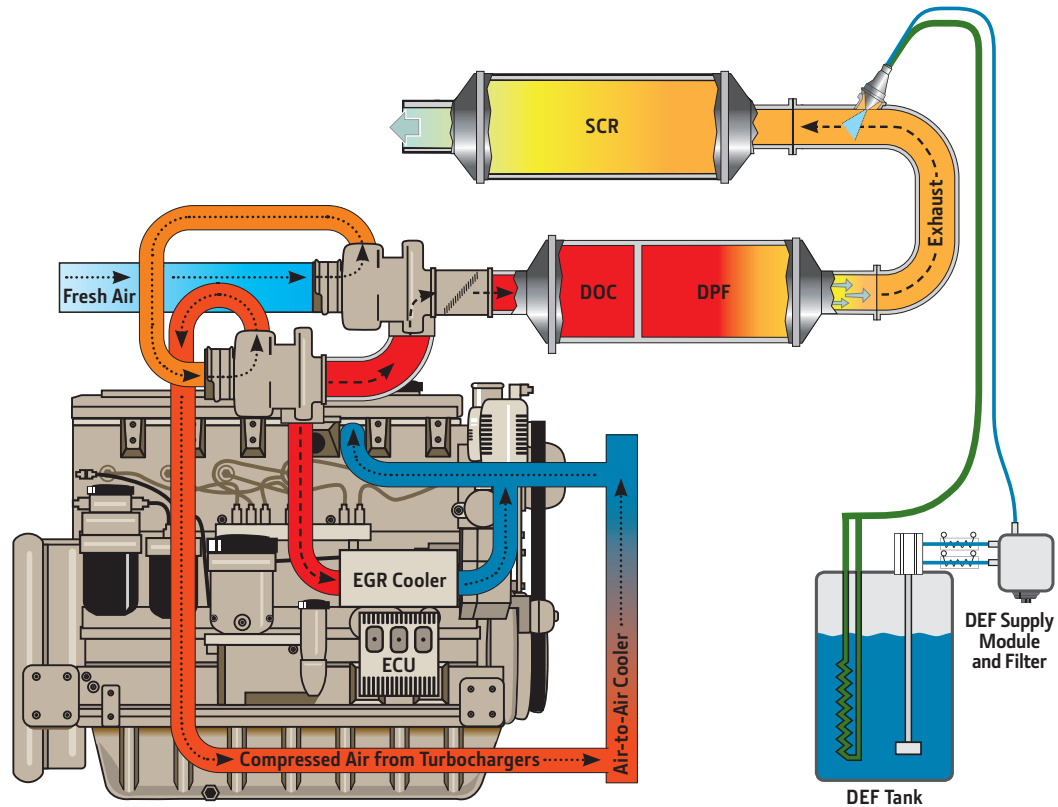
The John Deere exhaust temperature management (ETM) feature, not found on many competitive engines, cleans the aftertreatment components, regardless of application, machine speed, and load factor. In turn, the DOC/DPF and SCR system components operate at optimum efficiency throughout the useful life of the engine.

*PSS engines provide high power density, engine performance, high-altitude capability, world-class fluid economy, and lasting durability.*



# PSS PERFORMANCE

Final Tier 4/Stage V technology



## PowerTech PSS 4.5L

Power range: 93 – 129 kW (125 – 173 hp)

Power bulge: up to 8%

Torque rise: up to 33%

Low-speed (1000 rpm) torque: up to 129% of rated speed torque

Industrial ratings*		Peak torque†	
kW	hp	Nm	lb-ft
93	125	494-537	364-396
104	139	552-601	407-443
116	156	616-667	454-492
129	173	667	492

\*2200 and 2400 rpm rated speeds at most power levels.

†Peak torque at 1600 rpm.

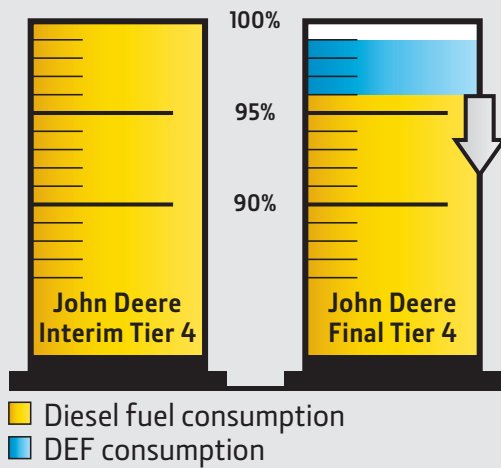
## OEM benefits

- Optimum performance
  - Power bulge
  - Peak and low-speed torque
  - Altitude capability
  - Great transient response
- Proven engine platform
- Proven aftertreatment with automatic cleaning
- Proven DPF particulate matter control technology
- Meets emissions standards in certified regions worldwide
  - EPA, EU, and CARB
  - Switzerland
  - Air quality districts and nonattainment regions
  - EU Stage V emissions levels
- Ease of installation
  - Compact engine envelope
  - Engine-mounted aftertreatment
  - Availability of tested accessory components
- Competitive installed cost
- Air-to-air aspiration
- John Deere machine integration support
  - Application engineering
  - Ability to leverage vast experience with John Deere machines
- John Deere worldwide engine distributor and dealer support



**4,000+**  
SERVICE LOCATIONS  
WORLDWIDE

## Low Total Fluid Consumption



Diesel and DEF consumption may vary by application

## Customer benefits

- Improved engine performance and machine productivity
  - More power
  - Increased peak torque
  - Great transient response
- Exceptional total (diesel fuel and DEF) fluid economy
- Excellent reliability
- Proven durability
- 250- and 500-hour oil change intervals
- Low operating costs
  - Fluid costs: diesel and DEF
  - Normal maintenance
- Fully supported by 4,000+ John Deere service locations worldwide
- Fast genuine John Deere parts delivery, including overnight delivery available in most areas of the world
- John Deere warranty you can count on
- OEM Technology Solutions





**JOHN DEERE**

*Proven off-highway reliability and durability*

John Deere has billions of hours of field experience  
with off-highway engine technologies\*

**1**  
**BILLION**

operating hours with  
exhaust filters

**5**  
**BILLION**

operating hours with  
variable geometry turbocharging  
and cooled EGR

**600**  
**MILLION**

operating hours with  
series turbocharging

**325**  
**MILLION**

operating hours in  
Final Tier 4/Stage IV  
machines with SCR



*\*Data compiled October 2018.*

*This literature has been compiled for worldwide circulation. While general information, pictures and descriptions are provided, some illustrations and text may include finance, credit, insurance, product options and accessories NOT AVAILABLE in all regions. PLEASE CONTACT YOUR LOCAL DEALER OR DISTRIBUTOR, AS APPLICABLE, FOR DETAILS. John Deere reserves the right to change specification, design and price of the products described in this literature without notice. John Deere's green and yellow color schemes, the leaping deer symbol, and JOHN DEERE are trademarks of Deere & Company.*

