# **MODEL: DTP24-I**

**TIER 4 FINAL INDUSTRIAL ENGINE** 



# **SPECIFICATION SHEET**

Fuel	Rating	Power hp (kW) 2,400rpm	Power hp (kW) 2,800rpm
Diesel	Intermittent	67.0 (50.0)	72.0 (54.0)
	Continuous	60.0 (45.0)	64.0 (48.0)
	Max. Torque: ft-lb (N-m)	206.5 (280.0) 1,800 rpm	

Rating Definitions: Rated for 1200 - 2800 rpm. (Corrected per SAE J1349) Intermittent - For varying intermittent loads with no overload capability. Continuous - Continuous prime rating is applicable for supplying power to a varying load for an unlimited amount of running time, with 10% overload capacity available for 1 out of every 12 hours.

### **STANDARD FEATURES:**

DT Power Corp Hyundai Infracore Compact Diesel Engines are designed for efficiency, as well as performance, with the durability and quality you expect. Lower fuel consumption, longer maintenance intervals and maintenance-free after-treatment systems lowers the total cost of ownership over the life of your engine.

With its strong power at small displacement, Hyundai Infracore

Compact Diesel Engines are ideal for a wide variety of equipments. Hyundai Infracore Compact Diesel Engines are designed to optimize the application, with the engine performance.

#### Key System Features are:

- · EPA Tier 4 Engine certified for Industrial applications
- · Packaged with flywheel housing to SAE standards
- Flywheel machined to SAE J620 adaptation
- Compact design to adapt to multiple OEM applications
- · Adds value to off-highway equipment
- No DPF (Diesel Particulate Filter)
- · Strong power and high low-end torque for enhanced performance
- · Low total cost of ownership

#### Engine:

- Hyundai Infracore D24
- Rated for high intermittent power with high torque lower down the power curve for better performance
- Cooling system capable of operation at 120°F ambient
- · Overhead valve assembly with 2-intake and 2-exhaust valves
- DELPHI DFP 4.4 injection pump for direct injection engine
- · High Pressure Common Rail operating at 1800 bar
- · Full electronic engine management with ECU governor control
- External cooled EGR
- · Aspiration as waste gate type turbo-charged with inter-cooler
- DOC (Diesel Oxidation Catalyst) aftertreatment

#### Engine Mountings and Drive Configuration:

- SAE #4 flywheel housing
- · Suitable for the connection of multiple drive systems
- Engine configured to fit almost any type of equipment
- · Fittings for mounting exhaust, radiator, and air cleaner
- · All rotating surfaces protected with guards
- · Oil and water drain lines



MODEL DTP24-I Industrial Engine

FUEL: Diesel

**ENGINE:** Hyundai Infracore

#### Maintenance:

- · Oil filter change 500-hours
- · Fuel filter change 500-hours
- · Valve adjustment after 1000-hours

#### After Treatment:

While traditional engine makers are relying on conventional technologies to satisfy the regulations of emission control, Hyundai Infracore Infracore has developed a unique after-treatment system.

Hyundai Infracore Compact Diesel engines use a Non-DPF System which is a much simpler system than the DPF-type systems solutions - no concerns on maintenance or quality issues.

Consider the benefits:

- · Elimination of unnecessary parts (DPF with complicated sensors, wires, diagnosis lamp and etc)
- · Prevention of after-treatment quality issues
- Maintenance Free (No regeneration process and ash cleaning required)

#### Advanced Fuel Injection System:

The fuel injection system of Hyundai Infracore Compact Diesel Engines is 1,800 bar common rail system. The advanced fuel injection system enables accurate fuel injection control thanks to high pressure of the common rail.

- · Low exhaust gas emission
- · Low noise vibration
- Better fuel efficiency
- · Optimized governing for each application

#### WARRANTY:

· Engine covered under the original equipment manufacturer's warranty - consult DT Power Corp for details

The manufacture reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

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DRIVE ASSEMBLY:				
Configuration	Bare engine with mounting points			
Drive connections	SAE housing			
Operation	Manual			
Drive shaft speed rpm	up to 2,800 rpm			
ENGINE SPECIFICATION:				
Manufacturer	Hyundai Infracore			
Model	D24			
Emissions	Tier 4 - Final & Stage IIIB			
Crankshaft speed	1,800 rpm			
Engine Type & Combustion	Diesel Direct Injection			
Fuel Injection System	High Pressure Common Rail			
Fuel Pressure	1800 bar			
Aspiration	Turbo-Charged & Intercooled			
Diesel fuel grade	EN590 : 2009 Diesel			
Cylinder Arrangement	In-line 4			
Displacement in <sup>3</sup> (liters)	146 (2.392)			
Bore and stroke ins (mm)	3.53 X 3.92 (90 X 94)			
Peak power hp (kW) @ 2800 rpm	74 (55.0)			
Cooling	Water Cooled			
Engine Control	Full Electronic Engine Management			
Compression ratio	17.0:1			
Air cleaner type	Canister air cleaner			
Aftertreatment	Diesel Oxidation Catalyst DOC			
Ventilation System	Closed-Circuit Ventilation			
Max. back pressure - ins $H_2O$ (kPA)	32.95 (8.2)			
Rotation viewed on flywheel	Counter clockwise			
Flywheel housing	SAE No.4			
Sound at 1m from engine block dB(A)	87.8			
Max. Exh. Temp at full load degrees PF (PC)	819 (437)			
Exhaust Gas Flow - ft <sup>3</sup> /min (m <sup>3</sup> /min)	112 (3.17) Standby			
COOLING SYSTEM FOR OPERATING AT 120°F AMBIENT:				
Water pump belt driven	Centrifugal type			
Eng. Cooling air flow - ft³/min (m³/min)	162.0 (4.603)			
Engine Coolant Capacity gallons (Liters)	1.06 (4.0)			

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# **TIER 4 FINAL INDUSTRIAL ENGINES**

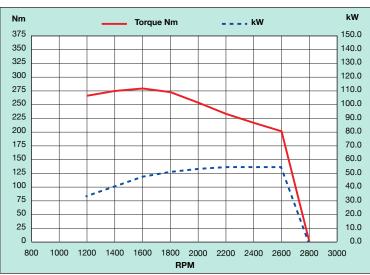
ENGINE: Hyundai Infracore

**FUEL:** Diesel

FUEL CONSUMPTION	Continuous / {Intermittent}			
100%	2.96 (11.2) / {3.41 (12.9)}			
75%	2.25 (8.5) / {2.56 (9.7)}			
50%	1.61 (6.1) / {1.77 (6.7)}			
25%	0.95 (3.6) / {1.00 (3.8)}			
LUBRICATION SYSTEM				
Oil pan capacity with filter - quarts	9.01 (8.6)			
Recommended lubricating oil grade	10W30 CJ-4			
Oil pump	Gear type driven by crankshaft			
Oil consumption at full load	< 0.1% of fuel consumption			
Oil Filter	Full flow, cartridge type			
Oil pressure min. – psi (kPA)	43.5 (300)			
ELECTRICAL SYSTEM				
Battery charger	12 volt x 75A Alternator			
Starting motor	12 volt x 2.7kW			
Wet cell battery	Lead Acid			
Battery Capacity recommended	100 AH, 950CCA			
Starting Aid	Glow Plugs			

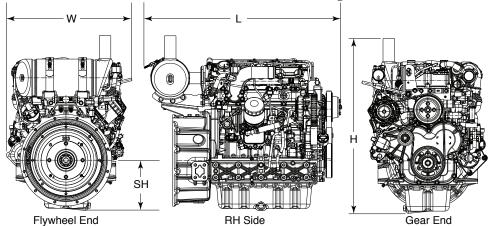
# 55.4kW (74.3hp)

### **DTP24-I Power Curves**



### ARRANGEMENT DRAWING & DIMENSIONS MODEL: DTP24-I Industrial Diesel Engine

KEY DIMENSIONS AND WEIGHT					
Description	Кеу	Inches			
Height	Н	30.0			
Length	L	34.0			
Width	W	21.0			
Shaft Height	SH	8.0			
Dry Weight Ibs (Kg)		448 (204)			
DT Power Corp					
5820 NW 84 <sup>th</sup> Avenue					
Miami, Florida 33166					
Call: 305.592.9745					



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