

DP40-55N

4.0 - 5.5 tonnes
Engine powered lift trucks



Product overview

DP40-55N

Developed and improved over many years in various applications, these trucks offer industry leading productivity.

The renewed DP40-55N range is equipped with a powerful, but smooth running four-cylinder, industrial Perkins 854F diesel engine. The engine is Euro Stage 3B compliant.

The GP40-55N range is powered by the smooth running, durable and fuel efficient TB45 LPG engine.

Users of these trucks benefit from low noise levels and exhaust emissions and improved overall economy.

The optional *'Pro-Shift'*, used in conjunction with the wet disc brakes option provides a number of cost saving benefits: protection of the transmission; prevention of wheel spin; automatic, adjustable braking when the accelerator pedal is released, reducing wear on the brakes; and 'hill hold' which makes working on ramps and slopes quicker, safer and more comfortable.



Product overview - Key features

DP40-55N

Sophisticated Euro 3B compliant diesel engine

A new, four cylinder, fuel efficient and smooth-running industrial turbo charged diesel engine, famed for its durability and low maintenance.

Powershift transmission

Powerful, smooth, low vibration and low noise operation.

Electronic diesel control

Standard feature in DP models. Includes ground speed control. This feature allows to limit the truck's top travel speed to one of four options.

Engine protection system

Monitors engine coolant and transmission temperature and engine oil pressure.

Fuel Saver Mode

Fuel saver mode allows to switch between two operation modes, soft and power.

Mast and carriage options

Mast offering is unchanged. Also carriage and attachments options remain the same.

Options

Option offering includes wet disk brakes, transmission control, application options, warning and indication options to ensure healthy operation of the truck



Key features

DP40-55N

PDS+, Presence Detection System

PDS+, now with an electronic parking brake, prevents accidental operation of the truck, when the operator is not seated correctly

Parking Brake

Electronic parking brake with push-pull switch will alarm if operator leaves the seat and parking brake is not set.

Smooth and precise fingertip control

Ideal for operators with repetitive movements and long shift patterns

Powerful and dependable LED working lights

LED working lights that almost never fail, with no bulb replacement necessary compared to normal lighting

High visibility overhead guard

Class-leading visibility through the longitudinal bars provides the operator clear views of the mast even at fullest extension

Angle-sensitive steering system

A progressive steering system that provides quick turning at low speeds and precision control at higher speeds

Optimum driving comfort

Adjustable steering column together with full suspension seat provides exceptional driving comfort.



Product overview - Chassis

DP40-55N

Model	Rated Capacity kg	Load Centre mm	Wheelbase mm	Weight kg	Length to FF
DP40N	4000	500	1850	5920	3000
DP45N	4500	500	2000	6330	3130
DP50CN	5000	500	2000	6850	3170
DP50N	5000	600	2150	7300	3310
DP55N	5500	600	2150	7640	3360



Chassis characteristics and dimensions are the same as in the previous model.

Product overview – Masts

DP40-55N

Masts		40N	45N	50C N	50N	55N
Simplex	2SP300	•	•	•	•	•
	2SP330	•	•	•	•	•
	2SP370	•	•	•	•	•
	2SP400	•	•	•	•	•
	2SP450	•	•	•	•	•
	2SP500	•	•	•	•	•
	2SP550	•	•	•	•	•
	2SP600	•	•	•	•	•
Duplex	2FP300	•	•	•	•	•
	2FP330	•	•	•	•	•
	2FP370	•	•	•	n/a	n/a
	2FP410	•	•	•	•	•
Triplex	3FP370	•	•	•	•	•
	3FP400	•	•	•	•	•
	3FP430	•	•	•	•	•
	3FP470	•	•	•	•	•
	3FP500	•	•	•	•	•
	3FP550	•	•	•	•	•
	3FP600	•	•	•	•	•
	3FP650	•	•	•	n/a	n/a
3FP700	•	•	•	n/a	n/a	



Mast offering remains the same as in the previous model.

Perkins 854F

- 3.4 L engine with 5.0 L power
- Increased performance
- Increased fuel efficiency
- Maintenance free DPF system

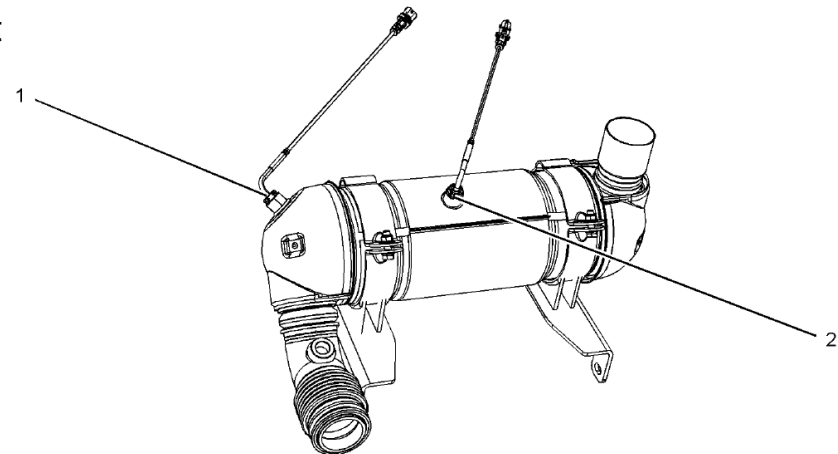


Perkins 854F Diesel Engine

Performance		Perkins 854F		S6S	
		Loaded	Unloaded	Loaded	Unloaded
Travel speed	km/h	19.7	20.4	21.5	22.0
Lifting speed	m/s	0.55	0.61	0.55	0.61
Lowering speed	m/s	0.50	0.45	0.50	0.50
Drawbar pull	N	27080	17450	27000	17400
Gradeability	%	29.1	26.4	29.1	26.4
Power output	kW @ rpm	54 @ 2200		52 / 2300	
Torque	NM @ rpm	260 @1000		260 / 1700	
Engine, number of cylinders/volume		4 / 3400		6 / 4996	

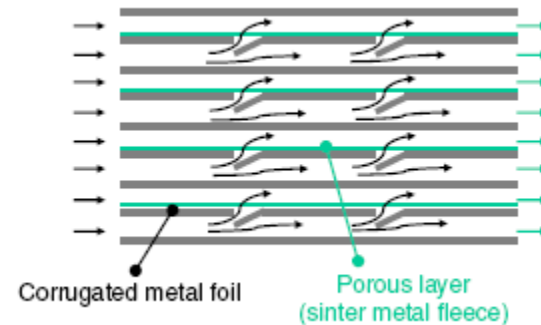
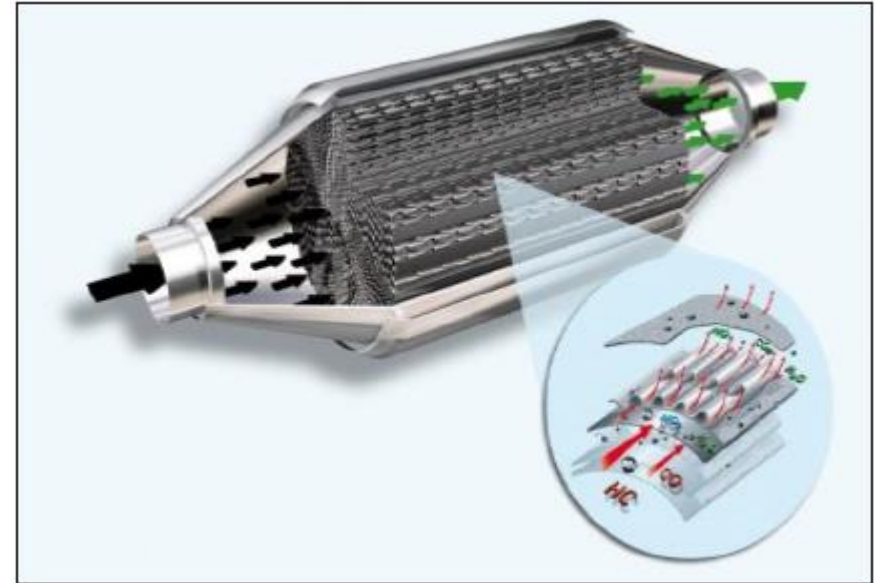
After treatment

- The Engine After treatment System for the engine consists of the following components.
 - Diesel Oxidation Catalyst (DOC)
 - Diesel Particulate Filter (DPF)
- The Diesel Oxidation Catalyst (DOC) oxidizes the carbon monoxide and the hydrocarbons that are not burnt in the exhaust gas into carbon dioxide and water.
- The Diesel Oxidation Catalyst (DOC) is a through flow device that will continue to operate during all normal engine operating conditions.
- The Diesel Particulate Filter (DPF) collects all solid particulate matter in the exhaust gas.



- (1) Diesel oxidation catalyst (DOC) temperature sensor
- (2) Temperature sensor after DOC

- Through flow system traps particulate filter from exhaust in the metallic, corrugated foils
- Engine then burns off the trapped soot through “passive regeneration”
- This is a maintenance free process that occurs as the truck is running.
- This system uses an amount of active regeneration in order to ensure that soot cannot exit the DPF
- The through flow DPF will not require manual cleaning.
- The engine ECM controls amount of soot is in the DPF.



- **Modes of Regeneration**
 - Automatic regeneration
 - Manual regeneration
- **Automatic regeneration**
 - Automatic regeneration will occur when the level of soot reaches the trigger point that is set in the ECM. The engine can operate normally during an automatic regeneration.
- **Manual**
 - A manual regeneration is initiated by pressing the regeneration switch. A forced regeneration can only be performed after the soot load has illuminated the DPF indicator .
 - A forced regeneration will only be required if the automatic regeneration has not been completed. This situation can be due to either the disable switch being operated or the duty cycle of the engine.
- **Service Regeneration**
 - The electronic service tool will be required in order to perform a force regeneration.

Product overview – Diesel engine

DP40-55N

g/kw-hr	CO	PM
Perkins 854F Certification Levels	0.1	0.02
Euro 3B Standard Requirements	5.0	0.025
854F Percentage Less Than Requirements	99.8%	20%
Previous S6S Certification Levels	.7	.23
854F Percentage Less Than S6S	86%	91%

Stage III A Standards for Nonroad Engines

Cat.	Net Power	Date†	CO	NO _x +HC	PM
	<i>kw</i>			<i>g/kWh</i>	
H	130 ≤ P ≤ 560	2006.01	3.5	4.0	0.2
I	75 ≤ P < 130	2007.01	5.0	4.0	0.3
J	37 ≤ P < 75	2008.01	5.0	4.7	0.4
K	19 ≤ P < 37	2007.01	5.5	7.5	0.6

† dates for constant speed engines are: 2011.01 for categories H, I and K; 2012.01 for category J.

Table 3
Stage III B Standards for Nonroad Engines

Cat.	Net Power	Date	CO	HC	NO _x	PM
	<i>kw</i>					
L	130 ≤ P ≤ 560	2011.01	3.5	0.19	2.0	0.025
M	75 ≤ P < 130	2012.01	5.0	0.19	3.3	0.025
N	56 ≤ P < 75	2012.01	5.0	0.19	3.3	0.025
P	37 ≤ P < 56	2013.01	5.0	4.7†		0.025

† NO_x+HC

Key features

DP40-55N

Superior build quality

We employ a policy of continual improvement and strive to build the most durable trucks available

Full floating powertrain

Low vibration and quiet transmission aids operator comfort, while also protecting the truck from undue wear and tear

Multi-functional display

Displaying key functions which can reduce ongoing operating and maintenance costs. Optional pin code entry to track individual use

Dedicated air intake system

Designed for efficiency and noise reduction. Can be supplied with a pre-cleaner unit for dusty conditions

Wide range of options for applications and demanding conditions

Variety of options for different applications and for use in extreme conditions such as with gaseous dust in aluminum works



Your partner in materials handling



PERFORMANCE

DURABILITY

CUSTOMER SERVICE