

**DP70N1, DP100-160N**



# POWER TO DELIVER

**ENGINE POWERED LIFT TRUCKS**  
7.0 - 16.0 TONNES



# STRENGTH AND CLEAN EFFICIENCY

**When a forklift truck combines high power and extreme durability with low operating costs, you can depend on it to increase your profitability – no matter how tough the workload or harsh the conditions.**

At the same time, if productivity is to be taken to its very maximum, the all-important partnership between a lift truck and its driver must be optimised through controlled performance, ergonomics and comfort.

The latest range of 7.0 tonne and 10.0 to 16.0 tonne diesel counterbalance models from Cat Lift Trucks combines all of these qualities and more.

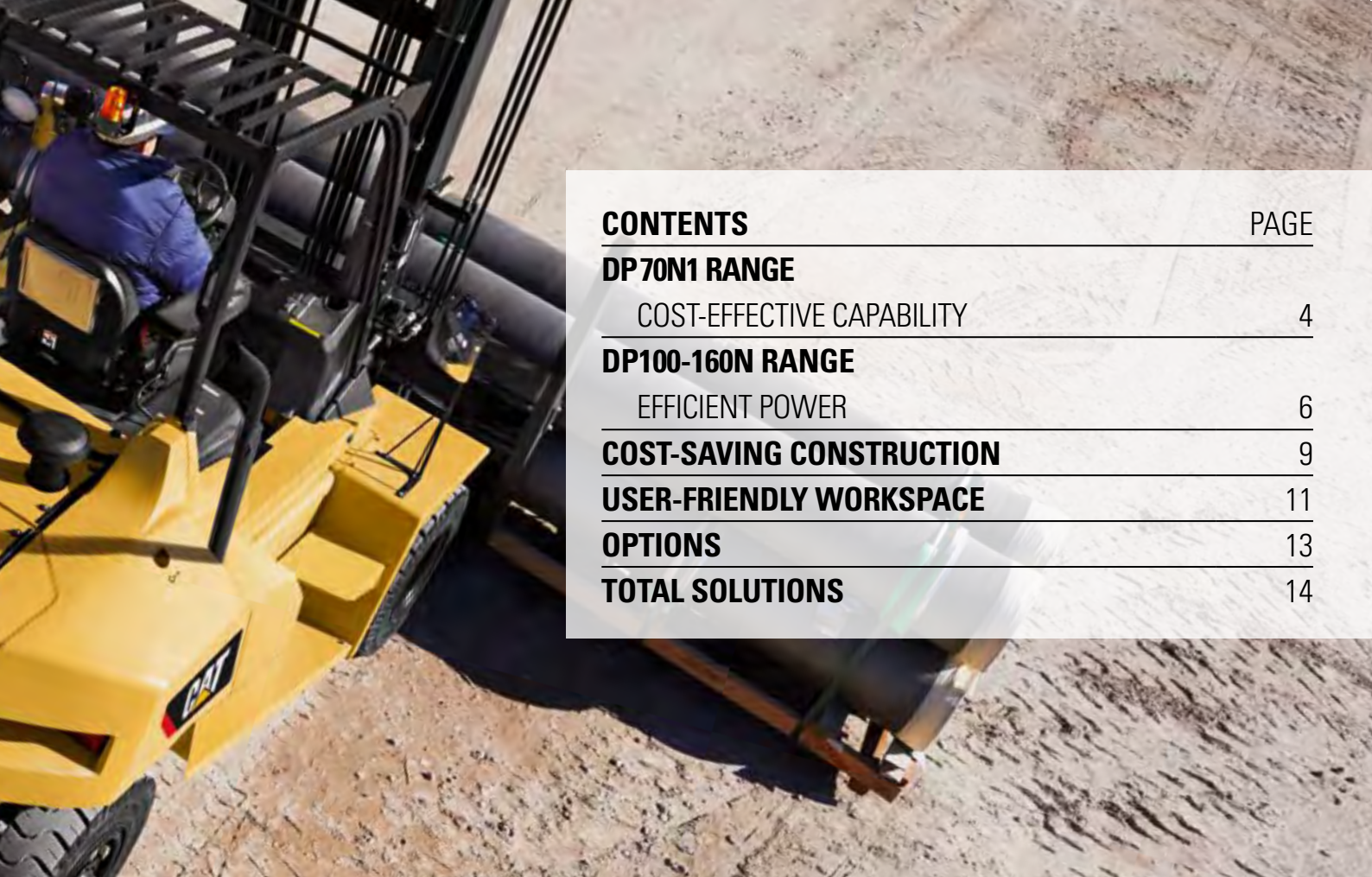
## MODELS TO CHOOSE FROM

| MODEL  | WHEELBASE<br>(mm) | CAPACITY<br>(kg) | DIESEL ENGINE |
|--------|-------------------|------------------|---------------|
| DP70N1 | 2300              | 7000             | 854F          |
| DP100N | 2800              | 10000            | 1204E         |
| DP120N | 2800              | 12000            | 1204E         |
| DP135N | 2800              | 13500            | 1204E         |
| DP150N | 3100              | 15000            | 1204E         |
| DP160N | 3300              | 16000            | 1204E         |

## BUILT TO SUCCEED

Advanced, fuel-efficient engines, meeting EURO Stage IV emissions regulations, minimise running costs day after day, while easy maintenance and strong resistance to damage and wear reduce the expense of servicing, repairs and downtime. These savings in the total cost of ownership, together with increased output resulting from the trucks' outstanding capabilities, add up to a great return on your investment.

Your Cat® lift truck dealer will identify the model and specification that matches your requirements perfectly, and will be there to give you all the support you need to maximise your materials handling success.



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## KEY BENEFITS

Advances in high-powered engine technology combine with high-stability structure to maximise lifting strength and residual capacity.

Emissions meet EURO Stage IV regulations for a healthier atmosphere.

Low fuel consumption, durable construction and easy access for checks and maintenance increase economy.

Operator-friendly features, including fully hydrostatic assisted steering, clear-vision design and limitation of vibration and noise, improve control, comfort and performance.

## TYPICAL APPLICATIONS

- Lumber yards and sawmills
- Paper and pulp
- Hardwood and furniture production
- Pipes
- Fabricated metal industries and foundries
- Industrial machinery and equipment
- Concrete, brick and block industries
- Stone, clay and glass
- Stevedoring, roll-on/roll-off applications
- Multi-pallet applications
- General load handling
- Short-term rental



# DP70N1 | 7.0 TONNES

# COST-EFFECTIVE CAPABILITY

**Built to meet the needs of a variety of demanding applications, the DP70N1 blends strength, stability and durability with a clean, fuel-efficient engine and user-friendly design to boost productivity and reduce operating costs.**

## **Advanced engine**

The advanced Perkins 4-cylinder 854F engine offers high power with low fuel consumption and low emissions that meet EURO Stage IV regulations. Key advances include a fast-response, compact turbocharger, which increases power output but uses 18% less fuel than previous engines. Power is delivered effectively via a powershift transmission with two forward and two reverse gears.

## **Self defence**

An Engine Protection System (EPS) monitors oil pressure, coolant temperature and transmission temperature, limiting power output, travel speed and hydraulic speed if abnormalities in performance are detected.

## **After treatment**

Features a compact Diesel Oxidation Catalyst (DOC) and Selective Catalytic Reduction (SRC) after-treatment solution that meets or exceeds EU Stage IV emission standards. This technology is designed to be maintenance free for the life of the engine.





## KEY FEATURES AT A GLANCE

- Advanced Perkins 854F 4-cylinder diesel engine delivers powerful performance with 18% greater fuel efficiency than previous units and meets EURO Stage IV emissions standard.
- Engine Protection System (EPS) monitors oil pressure, coolant temperature and transmission temperature, giving warnings and limiting power output, travel speed and hydraulic speed if abnormalities are detected.
- Robust steel frame designed using Finite Element Analysis gives durable structure with low centre of gravity, resulting in higher residual capacity.
- Fully floating drive axle adds extra durability and capacity compared to semi- or non-floating alternatives.
- Steer axle construction as a single solid unit maximises strength and rigidity.
- Dependable engine and strong resistance of all truck components to damage and wear helps minimise repair and service bills.
- Easy and quick access to all areas for routine checks and maintenance keeps truck in sound working condition, saves time and reduces expense.
- Noise and vibration limitation features include rubber-mounted key components, fully insulated steel engine hood and specially designed transmission gears.
- Fully hydrostatic assisted steering via small-diameter steering wheel ensures accurate and rapid response with little effort.
- Counterweight design allows small turning circle and clear view to the rear for precise manoeuvring.
- Mast with narrow channels and small-diameter lift cylinders increases forward vision and uses six load rollers with side rollers to achieve high load stability.
- Vacuum-boosted hydraulic brakes increase braking efficiency and safety.

# DP100-160N | 10.0-16.0 TONNES

# EFFICIENT POWER

**Combining impressive power with a strong, stable, durable construction, a clean, economical engine and an ergonomic design, the DP100-160N range delivers excellent performance and low running costs for higher profitability in heavy applications.**

## **Fuel efficiency**

At the heart of the DP100-160N range is its state-of-the-art Perkins 1204E 4-cylinder twin turbo diesel engine. The designers have been able to save 13% on fuel consumption compared to previous engines, and to bring emissions within the limits required by the EURO Stage IIIB regulations, while still providing the powerful performance that heavy duty applications demand.

## **Environmentally friendly economy**

The environmental benefits of this efficiency include conservation of fossil fuel and reduction in carbon emissions. Particulate emissions are reduced with the help of the latest Diesel Particulate Filter (DPF) technology, whose Passive Regeneration (PR) allows soot to be burned off during operation rather than requiring downtime. The ceramic filter needs minimal maintenance and unlike many alternatives on the market it has no need for additives such as urea.

## **Turbocharged performance**

Drivers are sure to enjoy the experience of the truck's power, which is enhanced by the rapid response of its twin turbochargers. To meet every need, powerfully and effectively, they have the choice of three forward and three reverse gears through a powershift transmission which is smoothly controlled by the Vehicle Control Module (VCM).





## KEY FEATURES AT A GLANCE

- Advanced Perkins 1204E 4-cylinder twin turbo diesel engine delivers powerful performance with 13% greater fuel efficiency than previous units and meets EURO Stage IIIB emissions standard.
- Low-maintenance Diesel Particulate Filter (DPF) technology with Passive Regeneration (PR) avoids the need for downtime by burning off soot while truck is operating.
- Engine Protection System (EPS) monitors oil pressure, coolant temperature and transmission temperature, giving warnings and limiting power output, travel speed and hydraulic speed if abnormalities are detected.
- Robust steel frame designed using Finite Element Analysis gives durable structure with low centre of gravity, resulting in higher residual capacity.
- Fully floating drive axle adds extra durability and capacity compared to semi- or non-floating alternatives.
- Steer axle construction as a single solid unit maximises strength and rigidity.
- Dependable engine and strong resistance of all truck components to damage and wear helps minimise repair and service bills.
- Easy and quick access to all areas for routine checks and maintenance keeps truck in sound working condition, saves time and reduces expense.
- Noise and vibration limitation features include rubber-mounted key components, fully insulated steel engine hood and helical transmission gears.
- Electronic direction control permits easy and smooth shifting between forward and reverse travel, without removing hands from steering wheel, at any speed up to 4.0 km/h.
- Fully hydrostatic assisted steering via small-diameter steering wheel ensures accurate and rapid response with little effort.
- Counterweight design allows small turning circle and clear view to the rear for precise manoeuvring.





# DP70N1 AND DP100-160N

## COST-SAVING CONSTRUCTION

### **Rugged frame**

Low fuel consumption is certainly not the only cost-saving benefit of these trucks. Their whole structure, starting with the durable steel frame, is designed to withstand rough treatment and to last for a long lifetime with minimal need for spending on repairs. With the help of Finite Element Analysis (FEA) the frame has been developed for maximum strength and stability, which has at the same time added higher residual capacity to the list of advantages. This is further enhanced by the low-profile counterweight design.

### **Strong axles**

The drive and steer axles are also particularly strong and durable. A fully floating drive axle has been chosen, as it will bear more weight than the alternative semi-floating and non-floating types. The steer axle has been constructed as a single solid unit for extra strength and rigidity.

### **Inbuilt protection**

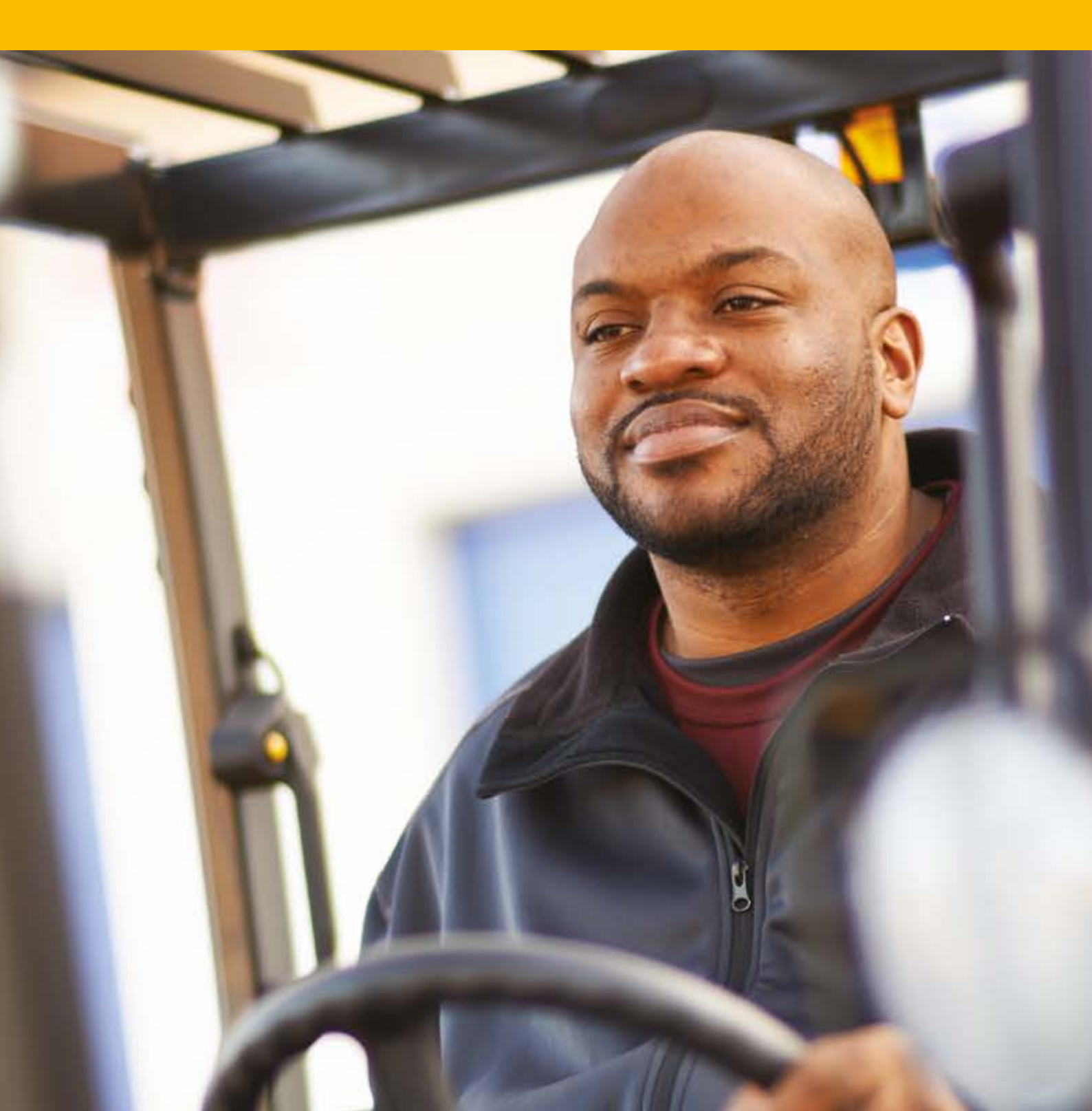
Hardwearing quality and low maintenance needs apply to all components, including the very dependable engine, drivetrain and other moving parts. The trucks also benefit from an Engine Protection System (EPS). This helps ensure that immediate attention is given to any problem and, if a malfunction occurs,

limits use of the truck to avoid damage.

The EPS monitors engine oil pressure, coolant temperature and transmission temperature. If these deviate from normal levels the power output, travel speed and hydraulic speed are automatically lowered. Meanwhile, the EPS alerts the driver to issues arising, via warning lights on the instrument panel, and records diagnostic fault codes.

### **Easy access**

Time and money spent on routine checks, maintenance tasks and servicing is reduced by making all key items easy to view and reach. The ease of access is outstanding in these trucks and in particular it includes the axle and mast lubrication points, transmission and torque converter, engine, radiator, coolant recovery bottle, engine oil dipstick, fuel shut-off valve, air cleaner and battery.





# DP70N1 AND DP100-160N

## USER-FRIENDLY WORKSPACE

### **Driver-centred design**

Entering and exiting the operator compartment is easy, thanks to conveniently placed grab bars and steps. The driver's workspace offers plenty of leg room, as well as a tiltable steering column and an adjustable full-suspension seat, allowing each user to find a relaxed operating position and to remain comfortable through long shifts.

The Presence Detection System (PDS) ensures that operators are audibly warned to fasten the seat belt. When the operator leaves the seat, all travel and hydraulic movement is blocked by the PDS.

### **A clear view**

The special design of the mast presents a large window of forward vision. This is achieved with the help of narrow mast channels and small-diameter lift cylinders. Despite the narrowing of the channels there is no loss of load stability, as the mast is equipped with six load rollers and side rollers. Rear vision over the low-profile counterweight is also good.

### **Quiet comfort**

Great efforts have been made to minimise the noise and vibration experienced by drivers. Rubber mountings have been used for the hydraulic control valves, transmission, engine, radiator, exhaust system and secondary lift cylinders. There is also a fully insulated steel hood for the engine, and the transmission gear design has been specially chosen for a quieter drivetrain.

### **Light and precise control**

The small-diameter steering wheel connects with a fully hydrostatic assisted steering system which behaves responsively and precisely with the minimum of driver effort. A small turning circle and clear front and rear views contribute further to the excellent manoeuvrability of these trucks. For accurate, low-effort operation of the hydraulic functions, there is a choice between ergonomic levers or the latest fingertip control unit.

### **Electronic aids**

Using the electronic direction control, drivers can quickly and smoothly switch between forward and reverse, when travelling at anything up to 4.0 km/h, while keeping their hands on the steering wheel. Control of the trucks is also aided by a comprehensively equipped instrument panel, which maintains operator awareness through the information and warnings displayed.





# DP70N1 AND DP100-160N

## OPTIONS

**Many extra features are available as options to help match each truck perfectly with its application. Here we present just a few examples, but your local Cat lift truck dealer can show you many more.**

### **Engine Shutdown System (ESS)**

With this system the engine will be shut down automatically, to prevent damage, if the transmission temperature exceeds 110 °C, the coolant temperature exceeds 107 °C or the engine oil pressure drops below 24 kPa.

### **Oil-cooled disc brakes**

In heavy duty applications and difficult environments this option will increase braking power, reduce the cost of replacing worn brake components and protect the system from corrosion. It is available as an option for capacities from 10.0 to 15.0 tonnes but is included as standard on the 16.0 tonne model.

### **DP70N1**

- Engine Shutdown System (ESS)
- Wide range of sidershifters and fork positioners

### **DP100-160N**

- Engine Shutdown System (ESS)
- Oil-cooled disc brakes (standard on 16.0 tonne, optional on others)
- High-comfort cabin
- Fingertip hydraulic control (electric over hydraulic)
- Wide range of sidershifters and fork positioners



# TOTAL SOLUTIONS



**The outstanding performance and durability of Cat lift trucks owes much to the expertise, advanced technology and strict quality standards applied by our ultra-modern production centres.**

To help you choose the right model and configuration, and maintain its productivity, we have an equally dedicated network of dealers. With their specialist knowledge, extensive experience and excellent service they will support you in every way to maximise your profits.

As well as diesel counterbalance trucks in a wide choice of capacities, our dealers offer a comprehensive range of warehouse equipment, LPG powered models and electric lift trucks. They also have a broad selection of acquisition options – including outright purchase, short or long term rental and leasing – and will tailor a package to meet the needs of your business.

Whatever your problem, Cat Lift Trucks and its dealers have the solution.



Whatever materials handling equipment you need, our global network of Cat lift trucks dealers is equipped to provide the solution.

Our constant investment in selecting, developing and supporting our dealer network ensures you receive not just the best equipment but the best service, advice and support in the industry.

**BUILT FOR IT.™**

**MACHINES  
CAN BE BOUGHT.  
RELATIONSHIPS  
HAVE TO BE BUILT.**

[www.catlifttruck.com](http://www.catlifttruck.com)

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