



# 2-3.5t Series N (E875) EMEA Option Catalogue

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# Powertrain

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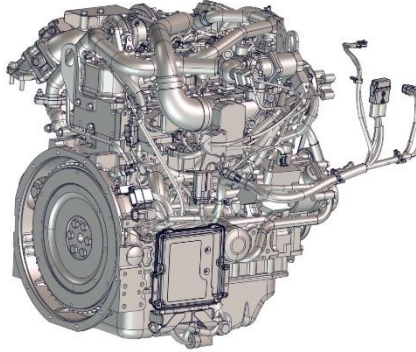
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# EFY21L

## Yanmar 2.1L DPF engine (37kW)



- **STD option or SPED**
- **STD**



### Description

- This engine is turbo charged 4 cylinder common rail design Diesel with Diesel Particulate Filter (DPF) that will meet the exhaust requirements for EU Stage 5. The latest Diesel technology allows the engine to have improved fuel economy while maintaining power and productivity levels.
- Service intervals have been extended over previous Yanmar engines. Timing is gear driven, needing no adjustment and accessory drive belts are self-adjusting and only need to be replaced every 5000hrs. Valve adjustment interval has increased from 1000hrs to 2000hrs
- This engine will be used for the 2.0-2.5t pneumatic forklift trucks with a Powershift/Techtronix transmissions in EU and for all 2.0-3.5t forklift trucks with a Hydrostatic transmission.

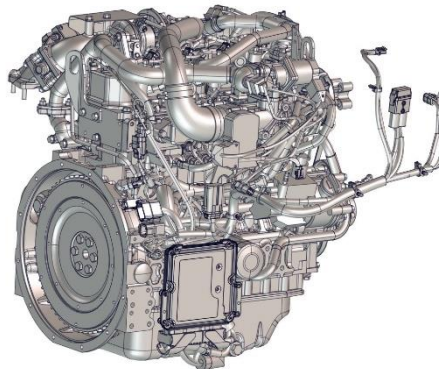


# EFY21C

## Yanmar 2.1L DPF with CAC Engine (44 kW)



- **STD option or SPED**
- **STD**



### Description

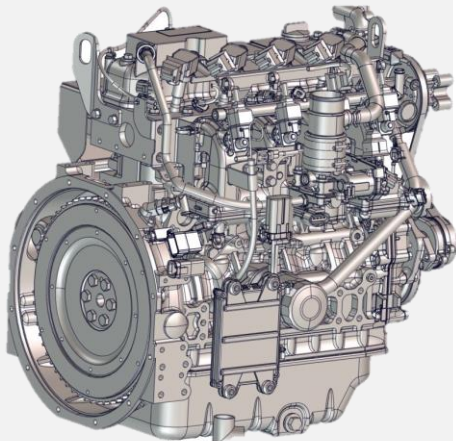
- This engine is turbo charged 4 cylinder common rail design Diesel with charge air cooler and Diesel Particulate Filter that will meet the exhaust requirements for EU Stage 5. The latest Diesel technology allows the engine to have improved fuel economy while maintaining power and productivity levels.
- This engine configuration will use the same DPF exhaust and engine arrangement as the 37kW engine but due to the higher power rating it requires a Charge Air cooler to reduce air temperature before entering the engine intake. The Charge Air Cooler is part of the radiator. The incoming air goes through a filter, through the turbo and into the radiator to be cooled before it enters the engine intake manifold.
- Service intervals have been extended over the previous Yanmar engines. Timing is gear driven needing no adjustment and accessory drive belts are self-adjusting and only need to be replaced every 5000hrs. Valve adjustment interval has increased from 1000hrs to 2000hrs
- The charge air cooler does not add additional maintenance over the standard Yanmar 2.1L engine.
- This engine is used for 3.0t and 3.5t forklift trucks with a Powershift/Techtronix transmission in EU.

# ELY22C

## Engine - Yanmar 2.2L LPG Certified



- **STD option or SPED**
- **STD**



### Description

- This engine is a 4 cylinder common rail design that will meet the exhaust requirements for EPA Tier 4 and EU Stage 5. It forms the basis for both the LPG and dual fuel options and is fitted with an exhaust catalytic convertor.
- Fuel economy has been increased over previous LPG models and service intervals extended to lower the cost of ownership of LPG engines. Accessory drive belt replacement is now 5000hrs, was 3000hrs. Valve adjustment is now 3000hrs, was 1000hrs. Spark plug replacement now 4000hrs was 1000hrs.
- A Fuel Quality Sensor (FQS) is a standard feature built into all LPG / dual fuel engines. The FQS works by analyzing the fuel for propane and butane and adjusts the engine parameters automatically to provide the best performance and lowest emissions level possible. The FQS also acts as a fuel warning sensor giving the operator a notice of approximately 10 minutes before the forklift truck will run out of fuel. The fuel warning indicator is shown as required on the display of the forklift truck.

# EDY334

## Yanmar 3.0L Diesel engine (34.2 kW)



- **STD option or SPED**
- **STD**



### Description

- Same proven design offered today in VX and MX products. Used for the last 15 years this engine has an excellent history of reliability and durability. It is simple, without the advanced sensors and exhaust after treatment found on the Stage 5/Tier 4 engines. Fitted with an indirect injection system it is tolerant of high sulfur Diesel fuel and is only suitable for un-regulated markets. Service intervals are unchanged from previous models, oil and filter every 500hrs, valve adjustment every 1000hrs. Timing is gear driven needing no adjustment..
- This engine is only available on 2-2.5t pneumatic tire models.
- Only available for non-regulated markets

# EDY343

## Yanmar 3.3L Diesel engine (43 kW)



- **STD option or SPED**
- **STD**

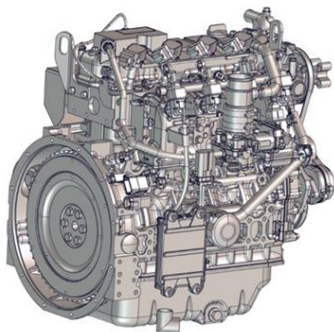


### Description

- Same proven design offered in VX and MX products. Used for the last 15 years, this engine has an excellent history of reliability and durability. It is simple, without the advanced sensors and exhaust after treatment found on the Stage 5/Tier 4 engines. Fitted with an indirect injection system it is tolerant of high sulfur Diesel fuel and is only suitable for un-regulated markets. Service intervals are unchanged from previous models, oil and filter every 500hrs, valve adjustment every 1000hrs. Timing is gear driven needing no adjustment..
- This engine is only available on 3-3.5t pneumatic tire models.
- Only available for non-regulated markets

# Engine - Yanmar 2.2L Dual Fuel Non – Certified

- **STD option or SPED**
- **STD**

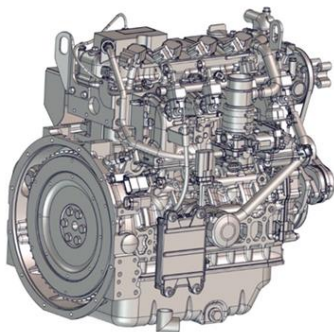


## Description

- This engine is a 4 cylinder common rail design for use in non-regulated markets. Based off the LPG engine an additional fuel line system is added to allow both LPG and Petrol to be used. Fuel source is manually switched by the operator and offers flexibility of fuel source which is popular in many markets.
- LPG fuel economy has been increased over previous Dual fuel models and service intervals extended to lower the cost of ownership. Dual fuel engines now have an oil and filter change at 1000hrs, was 500hrs. Accessory drive belt replacement is now 5000hrs, was 3000hrs. Valve adjustment is now 3000hrs, was 1000hrs. Spark plug replacement now 4000hrs was 1000hrs. Petrol fuel economy has also been increased further lowering running costs.
- A Fuel Quality Sensor (FQS) is a standard feature built into all LPG / dual fuel engines. The FQS works by analyzing the fuel for propane and butane and adjusts the engine parameters automatically to provide the best performance and lowest emissions level possible. The FQS also acts as a fuel warning sensor giving the operator a notice of approximately 10 minutes before the forklift truck will run out of fuel. The fuel warning indicator is shown as required on the display of the forklift truck.
- Only available for non-regulated markets

## Engine - Yanmar 2.2L LPG Non-Certified

- **STD option or SPED**
- **STD**

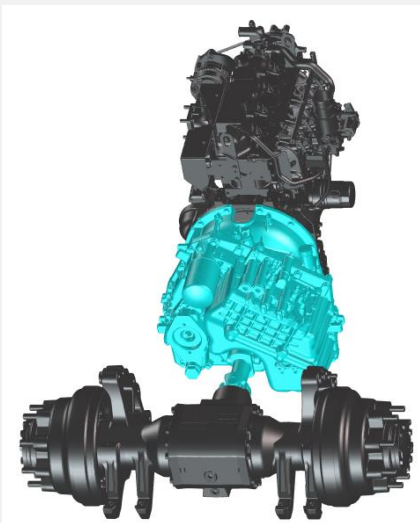


### Description

- This engine is a 4 cylinder common rail design that will meet the exhaust requirements for un-regulated markets (3a/b). It forms the basis for both the LPG and dual fuel engine options and has no additional exhaust treatment fitted.
- Fuel economy has been increased over previous LPG models and service intervals extended to lower the cost of ownership of LPG engines. LPG engine now have an oil and filter change at 1000hrs, was 500hrs. Accessory drive belt replacement is now 5000hrs, was 3000hrs. Valve adjustment is now 3000hrs, was 1000hrs. Spark plug replacement now 4000hrs was 1000hrs.
- A Fuel Quality Sensor (FQS) is a standard feature built into all LPG / dual fuel engines. The FQS works by analyzing the fuel for propane and butane and adjusts the engine parameters automatically to provide the best performance and lowest emissions level possible. The FQS also acts as a fuel warning sensor giving the operator a notice of approximately 10 minutes before the forklift truck will run out of fuel. The fuel warning indicator is shown as required on the display of the forklift truck.
- Only available for non-regulated markets

# TPWRSH

- STD option or SPED
- STD



# Powershift Transmission

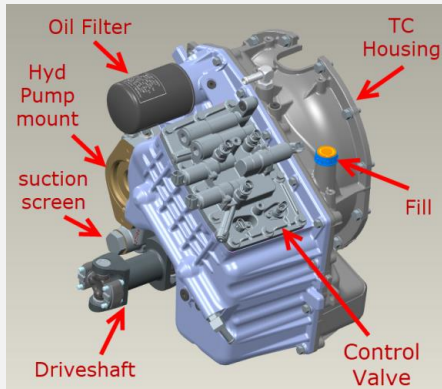
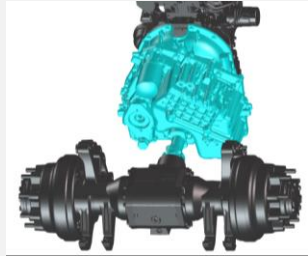


## Description

- The basic transmission is the equivalent of the transmission fitted to the MX and offers basic functionality in line with the majority of other torque convertor based forklift trucks on the market. Aggressive driving will result in some tire slip and higher levels of tire wear. Brake wear will also be higher when compared to a Techtronix or Hydrostatic transmission, and the basic powershift transmission does not provide hill hold capability. We would recommend this transmission option where accuracy and running cost are less important to a customer compared to initial purchase cost.

Transmission Control Strategy						
Trans	Basic Tran	Techtronix	Techtronix + AH	Techtronix	Techtronix + AH	Hydrostatic
Brake	Dry Brake	Dry Brake	Dry Brake	Wet Brake	Wet Brake	Wet Brake
Electronic Direction Control	Yes	Yes	Yes	Yes	Yes	Yes
Inch brake overlap adjust	Yes	Yes	Yes	Yes	Yes	Yes
Auto Deceleration	---	Yes	Yes	Yes	Yes	Yes
Controlled Power Reversal(operator)	---	Yes	Yes	Yes	Yes	Yes
Reduced tire slip	---	Yes	Yes	Yes	Yes	Yes
Hill Hold w/ operator in seat	---	Yes	Yes	Yes	Yes	Yes
Hill Hold w/o operator in seat	---	*	*	Yes	Yes	Yes
Auto Park Brake	---	---	---	Yes	Yes	Yes
Auto speed Hyd			Conditional		Conditional	Auto
* If an operator leaves the seat on grade the truck will enter controlled rollback.						
Hill Hold = Holding the truck stationary on a grade without APP command, without service brake						

- **STD option or SPED**
- **STD**

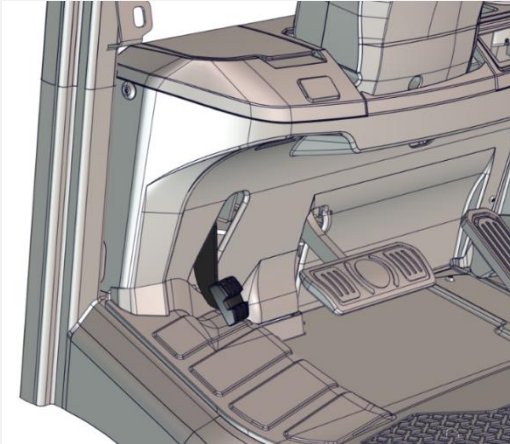


## Description

- The Techtronix transmission offers a number of advantages of a basic torque convertor or Powershift transmission, both in terms of performance, features and drive chain wear. By electronically controlling the clutch packs, high levels of control can be put into the drive chain giving 30% less brake wear compared to a basic transmission and up to 50% greater tire life.
- The Hill hold feature allows operators to be more productive in applications that have slopes and gradients and reduces the need to ride the foot brake or balance the forklift truck on the throttle. The auto deceleration feature allows an operator to adjust “engine braking” to their desired level which in turn allows the reduction of brake use and operator fatigue. Reduced tire slip and controlled power reversals not only save tires but also reduce the risk of skidding, reducing noise levels, dust generation/ tire marks and the risk of losing a load.
- HYG are the only company globally to have such advanced control with a torque convertor transmission. It delivers greater control and lower cost of ownership than any other torque convertor solution on the market.
- See the Powershift transmission page for a feature table.



- **STD option or SPED**
- **STD**



## Description

- Drum brakes are the lowest cost solution to braking however require the most maintenance. In a typical low intensity/use application drum brakes will meet the needs of most customers. As service hours increase, maintenance levels also increase, increasing vehicle downtime and costs. Very dirty environments may also be less suitable for drum brakes as additional air born particles will wear the brake pads faster.
- Forklift trucks fitted with the drum brake option have a manual park brake which is applied by the operators left foot and manually released from a handle on the dash. This design provides open access into the operator compartment.

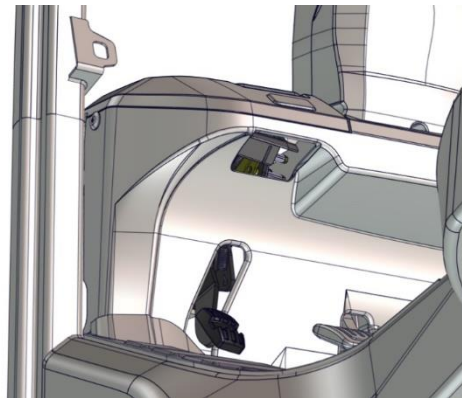
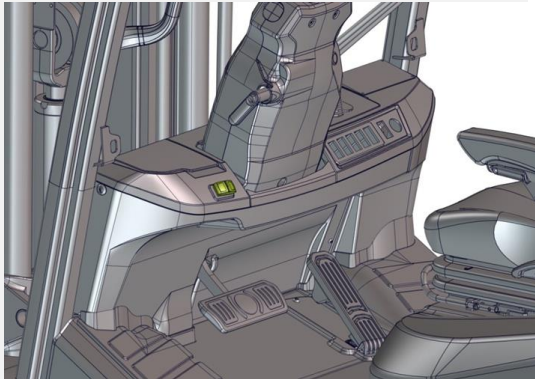


Fig 1. Powershift Trans with Dry Brake

- **STD option or SPED**
- **STD**



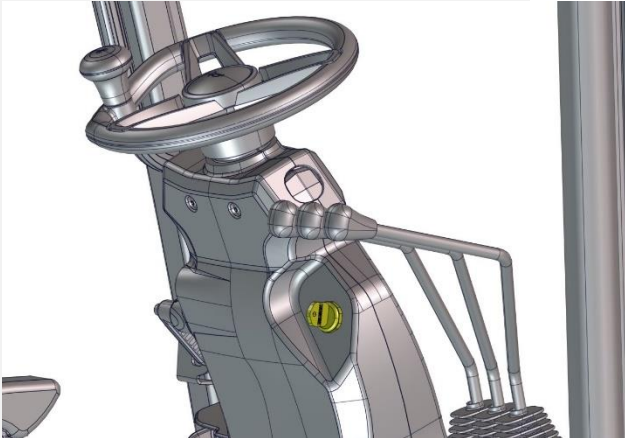
## Description

- Oil cooled brakes, although more expensive to purchase initially than drum brakes, offer the advantage of minimal maintenance together with a high level of environmental tolerance. Typically Oil cooled brakes have a pad replacement time of 20,000hrs, reducing maintenance costs and downtime throughout the life of the forklift truck. Over the lifetime of the forklift truck this amounts to 20% less service attention, downtime and associated costs.
- When Oil cooled brakes are specified, the manual park brake system is replaced by a push button/auto park brake interface, reducing operator fatigue but still giving 100% control to the operator. The park brake is applied automatically when the operator leaves the seat or the engine is switched off ensuring accidental un-controlled forklift truck movement is not possible.

- **STD option or SPED**
- **STD**

### Description

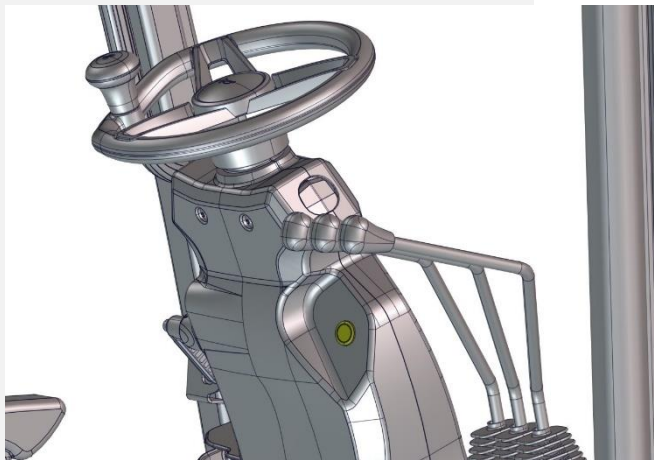
- The standard fitment for all ICE forklift trucks is with Key switch. This option requires a stand-alone key to start the forklift truck. The key switch is located on the right-hand side of the steering column.
- The key switch is a three position switch:
  - Position 1 (latching): 'off'
  - Position 2 (latching): 'Accessory Power Mode'
  - Position 3 (momentary): 'Start Mode'



- **STD option or SPED**
- **STD**

## Description

- This option replaces the standard fitment key switch on the right-hand side of the steering column with a momentary button used for turning on and off the system power, as well as for cranking. The start/stop button is sized to be easily actuated with the forefinger (22 mm in diameter).
- The start process is to press the momentary button, enter the operator password via the full color display and then press the button again to crank the engine.



- **STD option or SPED**
- **STD**

## Description

- Additional sound absorbing material reducing noise by 1.0 to 1.5 dB(A) LPaz is fitted to the following areas;
  - Underside of the floor plate
  - Inside of the dash covers for forklift trucks fitted with a cabin
  - Inside of the side panels of the operator compartment
  - Inside/under the hood
- This option will be fitted as standard to all regulated EMEA Diesel forklift trucks and to all EMEA forklift trucks fitted with a full cabin. For all other configurations the option can be selected freely.



# Environmental Construction - Standard (-20°C to 40°C)

- STD option or SPED
- STD

## Description

- The standard configuration for operation between -20°C and 40°C (-4°F – 104°F) will include an engine driven fan, radiator, standard hydraulic pump and in regulated EU markets will include the counterweight grill.
- Below is an excerpt from the operator manual

### Atmospheric Conditions

This range of fork lift trucks is designed to work in the following atmospheric conditions:

Average ambient temperature for continuous duty:	+25°C
Maximum ambient temperature (full performance): Standard configuration	+40°C
Maximum ambient temperature (full performance): High Ambient Package	*see below
Lowest ambient temperature for trucks intended for use in normal indoor conditions:	+5°C
Lowest ambient temperature for trucks intended for use in normal outdoor conditions:	-20°C
Altitude:	Up to 2000m
Relative humidity:	From 30% to 95% (non-condensing)

\* Yanmar 2.2 LPG, Yanmar 2.1 DPF (37 kW), Yanmar 3.0L- with optional high ambient package

+50°C

\* Yanmar 2.1 DPF (44 kW), Yanmar 3.3L- with optional high ambient package

+47°C

- **STD option or SPED**
- STD

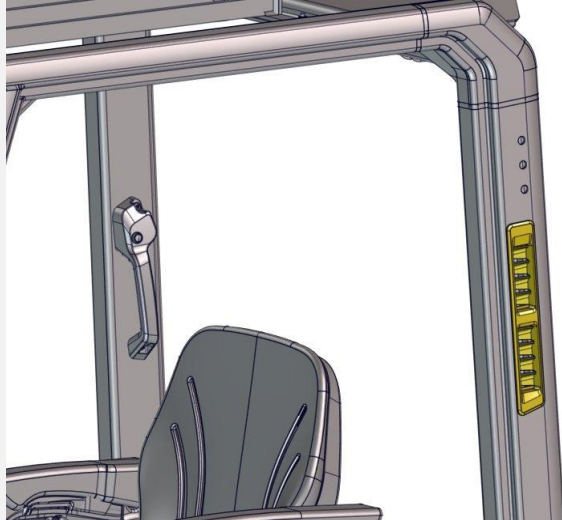
### Description

- For hot ambient conditions between -20°C and over 40°C (-4°F >104°F) the forklift truck is configured with a 3- row radiator, hydraulic oil cooler, high temp hydraulic oil, powertrain protection, and premium monitoring. For further high temperature performance select the on-demand hydraulic pump option and for even greater performance the on-demand cooling option. The customer may also want to consider adding an operator's cabin with air conditioning. In regulated EU markets this option will also include the counterweight grill.

- **STD option or SPED**
- **STD**

### Description

- The air filter pulls air through a grill on the left, rear, overhead guard leg. In this configuration the air will travel through the grill then inside the overhead guard leg and then from the overhead guard leg through a hose to the intake filter. This provides a good compromise of intake noise, minimal dust ingress and cost. In a typical clean application the air filter will be replaced every 2000hrs.

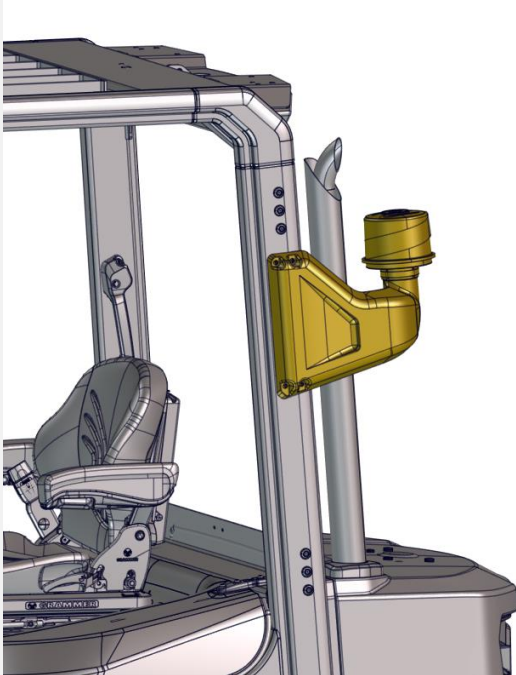




- **STD option or SPED**
- **STD**

## Description

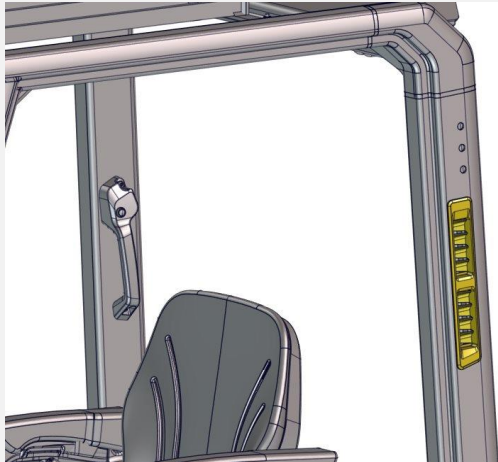
- The pre-cleaner is bolted onto the overhead guard leg in place of the intake grill. The pre-cleaner extends to the rear of the OHG and stays within the boundary of the forklift truck chassis. The pre-cleaner removes dust and dirt particles from the air by centrifugal force. The incoming air enters from the underside of the pre-cleaner bowl and as the air travels around the bowl the heavy particles are forced to the outside and then fall through strategically placed holes in the bottom of the bowl, making the pre-cleaner maintenance free. The air then travels down the overhead guard leg, through to the intake filter.
- The use of a pre-cleaner is advised in environments where dust and especially small particles are present – If you don't want to breathe the air neither does your engine. In a typical dirty environment a forklift truck without a pre-cleaner will need its air filter changed every 500hrs, the use of the pre-cleaner will typically double this interval to 1000hrs.



- **STD option or SPED**
- **STD**

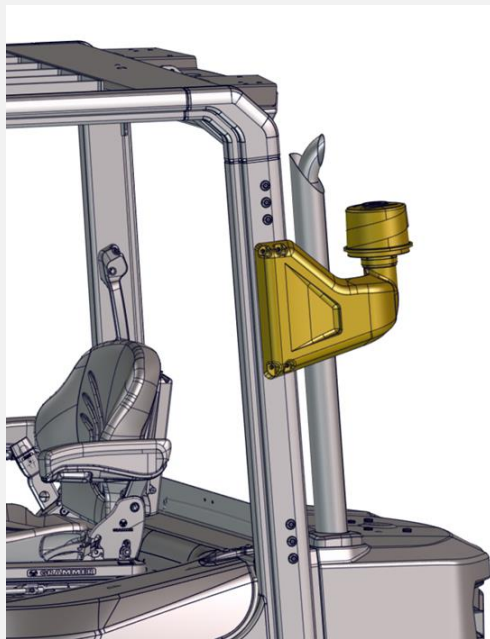
## Description

- The air filter pulls air through a grill on the left, rear, overhead guard leg. In this configuration the air will travel through the grill then inside the overhead guard leg and then from the overhead guard leg through a hose to the intake filter. The heavy duty filter reduces dust ingress to the engine by a factor of 10 making this suitable for dusty and dirty environments. If you don't want to breathe the air neither does your engine. In a typical dusty/dirty environment a forklift truck with a standard filter will need its air filter changed every 500hrs, the use of heavy duty elements will typically double this interval to 1000hrs



## Heavy Duty High Air Intake with Pre-cleaner

- **STD option or SPED**
- **STD**



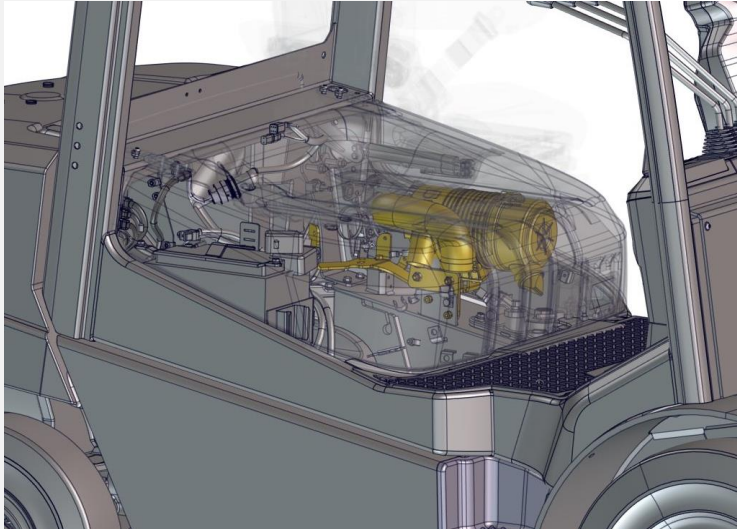
### Description

- The pre-cleaner is bolted onto the overhead guard leg in place of the intake grill. The pre-cleaner extends to the rear of the OHG and stays within the boundary of the forklift truck chassis. The pre-cleaner removes dust and dirt particles from the air by centrifugal force. The incoming air enters from the underside of the pre-cleaner bowl and as the air travels around the bowl the heavy particles are forced to the outside and then fall through strategically placed holes in the bottom of the bowl, making the pre-cleaner maintenance free. The air then travels down the overhead guard leg, through to the intake filter.
- The heavy duty filter also reduces dust ingress to the engine by a factor of 10 making this option suitable for the most dusty and dirty environments. If you don't want to breathe the air neither does your engine. In typical very dusty/dirty environments a forklift truck with a standard filter will need its air filter changed between 250- 500hrs, the use of heavy duty elements and a pre-cleaner will typically extend this interval to 1000hrs.

- **STD option or SPED**
- **STD**

## Description

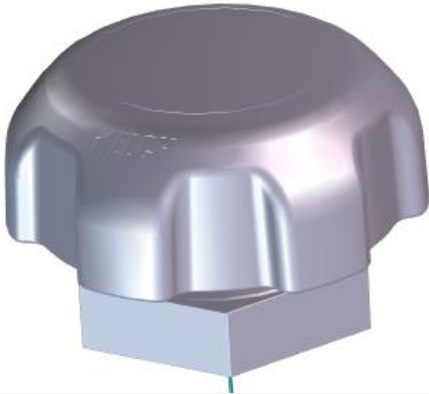
- The internal air intake is the simplest system and will pull air into the air filter from under the forklift trucks hood. As this system does not have a silencer fitted to the intake, noise at the operator's ear is increased by approximately 1dB. Because the air is sucked in from under the hood/ lower in the forklift truck we do not advise this option for environments where dust and dirt are present.



- **STD option or SPED**
- STD

### Description

- Standard fitment fuel cap. This is a new fuel cap that has a twist design similar to a car. A few turns allows the cap to become seated, to prevent over tightening the cap has a ratchet mechanism built in. The cap has an ergonomic design for good grip and easily tightening. The cap also features a lanyard that fits inside the tank opening to prevent it from falling or being lost. The cap is made from a nylon plastic material.



# EBH220

## 240V Engine Block Heater



- **STD option or SPED**
- **STD**

### Description

- Fitment of an engine block heater should be considered when forklift trucks are being stored and started in low temperature conditions below  $-20^{\circ}\text{C}$  /  $-4^{\circ}\text{F}$ . By pre-warming an engine it will start more easily, avoid time wasted by jump starting and reduce fuel consumptions and emissions compared to a cold forklift truck. Factory engine block heaters are also UL rated and maintain the forklift truck UL certification when fitted. Note: This option will require the forklift truck to be connected to a mains power supply to pre-heat the engine.
- To be selected with the High Capacity Starter Battery (BHCAPS) when operating below  $-20^{\circ}\text{C}$ .



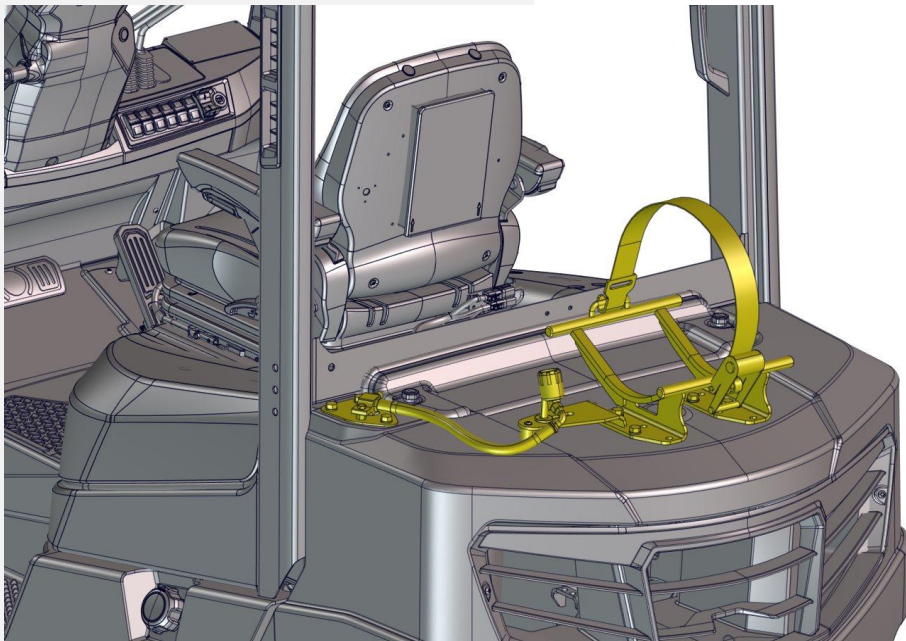
**Block  
Heater**

## LPG Tank Brackets – Fixed with Fabric Strap

- **STD option or SPED**
- **STD**

### Description

- Lowest-cost option for non-North America markets. Provides a fixed mounting for bottles up to 18Kg/375mm diameter and includes all pipework and pressure regulator.



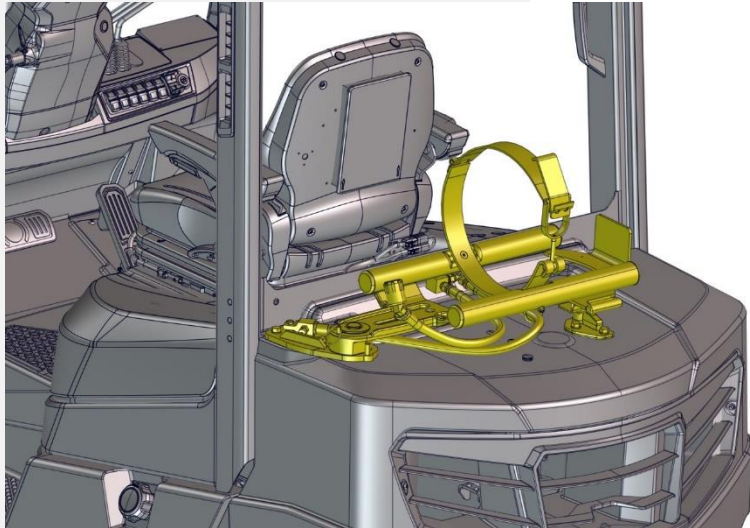


# LPG Tank Brackets – Swing Out LPG Bracket with Fabric Strap

- **STD option or SPED**
- **STD**

## Description

- This option allows 180° rotation of the LPG bottle to allow easier access when changing the bottle. This is especially useful on larger capacity models where the size of the counterweight may restrict access for some operators. Pneumatic 1-2t trucks and compact trucks, require the LPG tank to be moved out of the way for opening the truck's hood for service making this the lowest cost choice for those models.



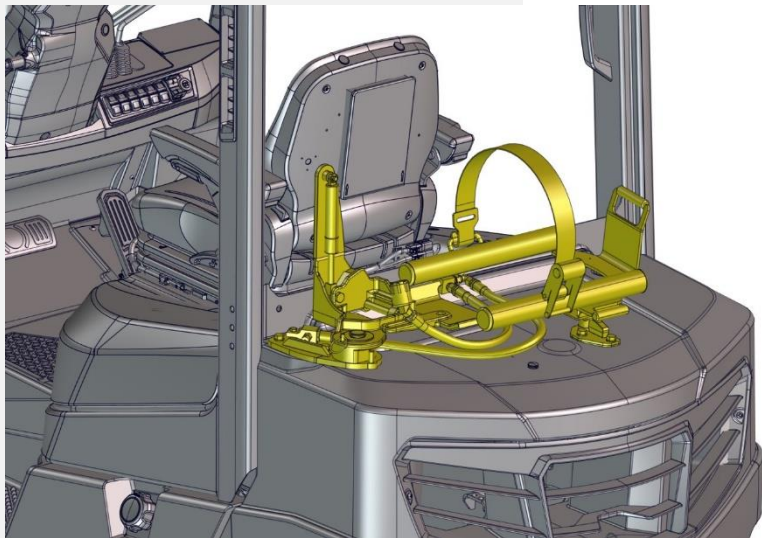


# LPG Tank Brackets – Swing Out and Drop Down with Fabric Strap

- **STD option or SPED**
- **STD**

## Description

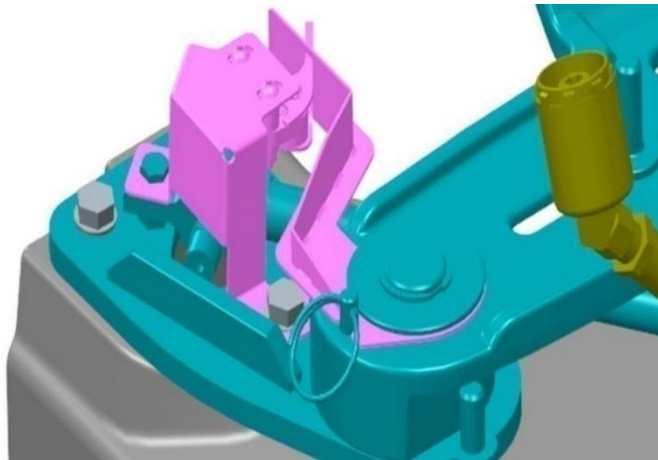
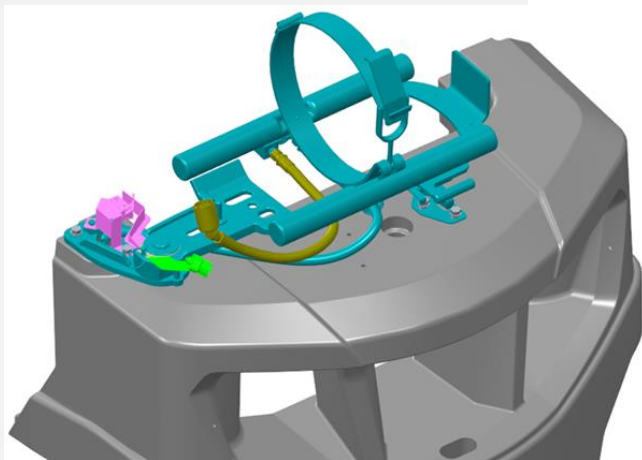
- This option allows 180° rotation of the LPG bottle and a rotation down towards the floor to allow easier access when changing the bottle. This is especially useful on larger capacity models where the size of the counterweight may restrict access for some operators, or when operator ergonomics and health and safety are important – bottles can weigh up to 32Kg / 72lbs.



- **STD option or SPED**
- **STD**

### Description

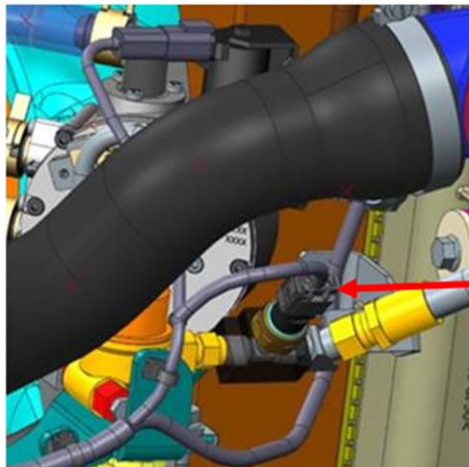
- This option adds a sensing system to any swing out LPG bracket to inform the operator that the LPG tank is not secured in its operating position. The system provides a visual warning on the display and stops the forklift truck being started and/or taken out of neutral. This helps to reduce the risk of damage to the forklift truck and surrounding equipment and infrastructure.
- The images below show the interlock switch assembly highlighted in pink



- STD option or SPED
- STD

## Description

- The Fuel Quality Sensor (FQS) is a standard feature built into all LPG / dual fuel engines. The FQS works by analyzing the fuel for propane and butane and adjusts the engine parameters automatically to provide the best performance and lowest emissions level possible. The FQS also acts as a fuel sensor, providing the operator with approximately 10 minutes notice before the forklift truck will run out of fuel. The fuel indicator is shown as required on the display of the forklift truck.

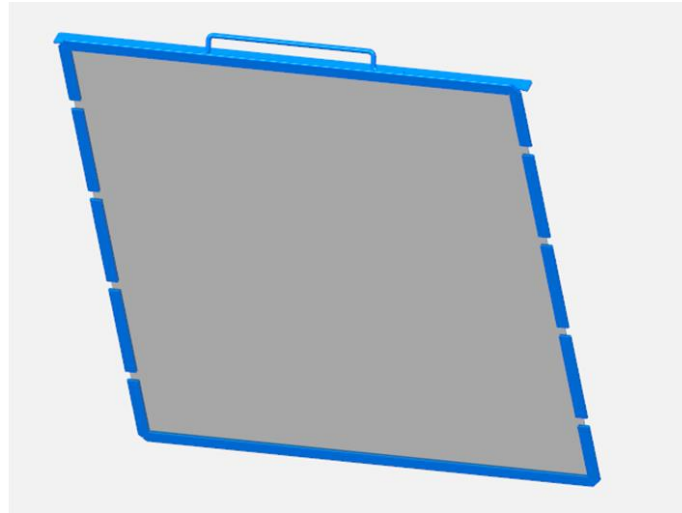
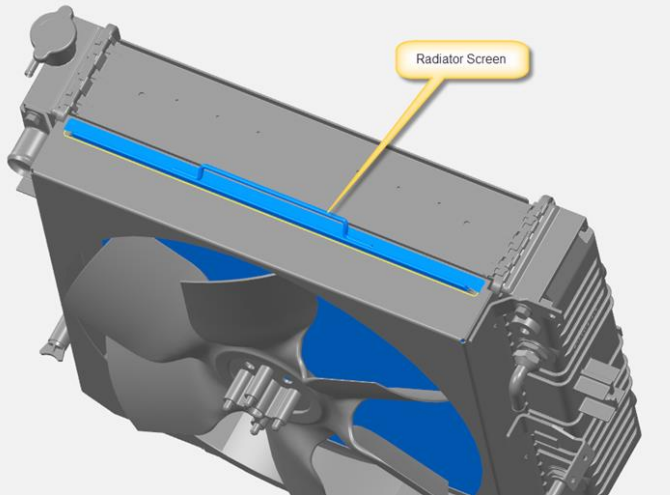


Fuel Quality Sensor

- **STD option or SPED**
- **STD**

## Description

- The radiator screen option is suitable for applications that find radiators clog from dust, dirt and debris. The removable filter reduces radiator clogging and the likelihood of forklift truck overheating. For high debris situations (paper recycling etc..) or for customers wanting to minimize the maintenance intervals, we recommend replacing the radiator screen option with the on-demand cooling option (reversing fan blows the radiator clean).



# LOWEXS

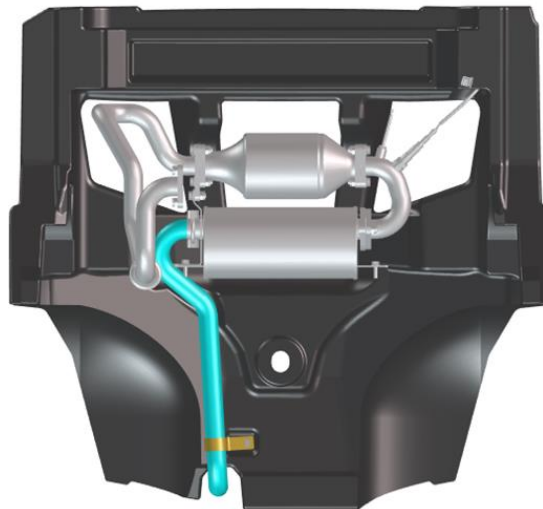
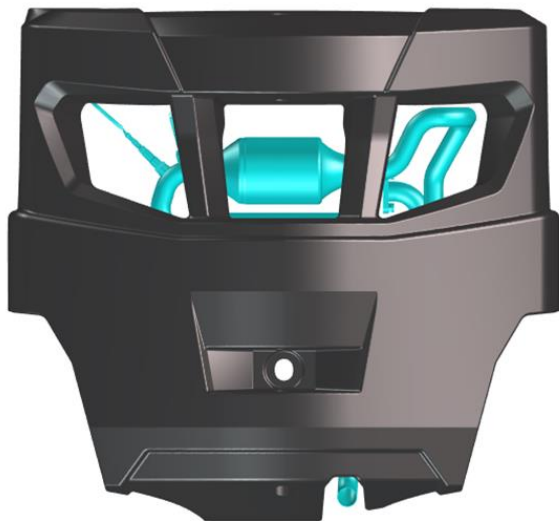
## Low Exhaust



- **STD option or SPED**
- **STD**

### Description

- The low exhaust is designed to exit out of the lower edge of the counterweight. Exhaust gases exit horizontally, so do not to stir up dust and debris on the ground. This location brings the warm exhaust air out under the engine fan airstream so the exhaust air will not be recirculated into the Operator's compartment when driving in reverse.



# EXOVHD

- **STD option or SPED**
- **STD**



## Overhead Exhaust



### Description

- The overhead exhaust is designed to exit high on the left-hand rear of the forklift truck. In this location the exhaust gases will not recirculate into the Operator's compartment when driving. The warm exhaust air will be above the ground, far away from any heat sensitive materials or products that may be on the floor. Also, this exhaust location will be above the heads of any potential by-standers. By placing the overhead exhaust stack on the left-hand side of the counterweight visibility is maximized when driving in reverse, when the operator is looking over his right shoulder.

# EXSWRS

- **STD option or SPED**
- **STD**



## Exhaust Wraps



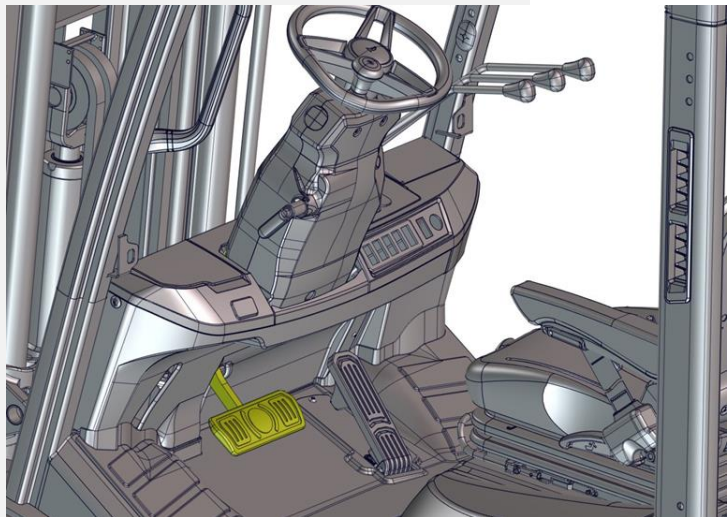
### Description

- Exhaust wraps are designed to keep debris away from the hottest portions of the engine, thereby lessening the potential for ignition of the dust or debris, so long as the forklift truck and the exhaust wraps are properly maintained. These should be considered for fitment on lift trucks working in the paper industry or other similar applications (where trucks are driven in areas with dust, organic debris, or loose flammable material, such as recycled paper, wood chips or fibers and cotton) and can be exposed to various types of flammable debris during operation. On demand cooling should also be considered to minimize the build up debris in the engine compartment by blowing material out with its reverse fan function.

- **STD option or SPED**
- **STD**

### Description

- This option provides a single pedal to carry out both inching (slow, controlled movement of the forklift truck) and service braking. The single large pedal is extra wide for easy actuation with either foot giving the operator greater flexibility of use and improved comfort. Inching is adjustable via the full color display allowing the forklift truck to be setup for the customer's application/preference.

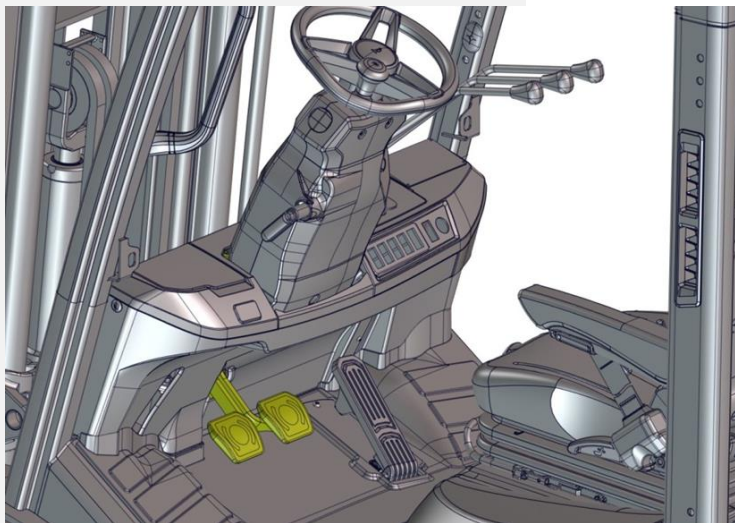




- **STD option or SPED**
- **STD**

## Description

- This option provides a specific pedal for inching (slow, controlled movement of the forklift truck) and a second pedal for service braking. The left pedal is used for inching only and right for service braking. The benefit of having dual pedals is that it reduces the pedal effort, especially when holding the forklift truck stationary and lifting.



- **STD option or SPED**
- STD

## Description

- Compliant with applicable EU and UK health and safety requirements (Machinery Directive 2006/42/EC) and emissions regulations (NRMM Emissions Regulation 2016/1628) for sale in the EU and the UK

- **STD option or SPED**
- **STD**



Oil pressure warning



Coolant level warning



Engine oil temperature  
warning

## Description

- All N Series trucks will automatically shut down the engine of the forklift truck should any of the following 4 situations occur,
  - Engine oil pressure fall below its set limit
  - Engine coolant temperature rises above its limit
  - Transmission oil temperature rise above its limit (Transmission goes into Neutral)
  - This feature can also be recorded in telemetry and be linked to specific operators via wireless access
- Adding Powertrain Protection will provide two additional features
  - Shut down based upon low coolant level
  - Advanced thermal management

- **STD option or SPED**
- STD

## Description

- Reduces idle time when the operator is not in the seat. This reduces emissions, saves fuel and reduces forklift truck run time (which in turn increases second life values). An automatic engine shutdown helps maintain operator best practice. Shutdown timing can be programmed from 1-30minutes via the color display.

- **STD option or SPED**
- **STD**

## Description

- System monitoring option provides basic system monitoring and feedback to the operator. Via the color display the following information is indicated to the operator,
  - Engine malfunction
  - Brake fluid level (minimum level)
  - Fasten Seat Belt Indicator
  - Park Brake Indicator
  - Alternator Malfunction Indicator
  - Low Engine Oil Pressure Warning
  - Engine Coolant Temperature Indicator
  - Transmission Oil Temperature Indicator
  - Fuel Level Indicator
  - Water Separator (DSL Only) Indicator
  - Cold Start (glow plug, DSL Only) Indicator
  - Truck Shut down upon low engine oil pressure indicator
  - Truck Shut down upon engine coolant temperature
- Helping the operator to understand key truck information clearly and quickly can help maintain the health and reliability of the truck long term, reducing long term repair and operating costs.

- **STD option or SPED**
- **STD**

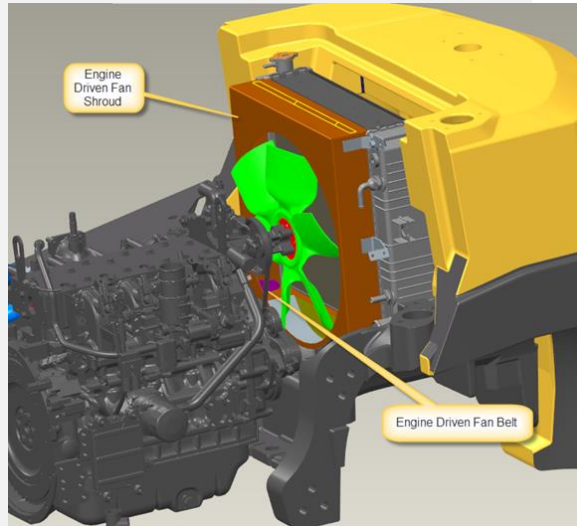
## Description

- Premium system monitoring has all of the information and feedback of the system monitoring option (see page 41 for details), As well as the following additional features
  - Engine malfunction
  - Air Restriction Indicator (electronic)
  - Hydraulic Restriction Indicator
  - Engine coolant level indicator
- This option is especially useful for dirty and dusty environment where constant monitoring of the engine and hydraulic systems will help inform operators when the truck needs to be maintained

- **STD option or SPED**
- **STD**

## Description

- The engine driven fan is driven by a belt off the crankshaft pulley of the engine. The engine to fan ratio is 1:1 so the fan will spin at the same RPM as the engine.
- The 6 blade engine fan is designed for maximum air flow while also reducing noise and vibration at high engine RPMs. The system has minimal complexity reducing servicing requirements and cost.



# High Temperature Hydraulic Fluid

- **STD option or SPED**
- STD

## Description

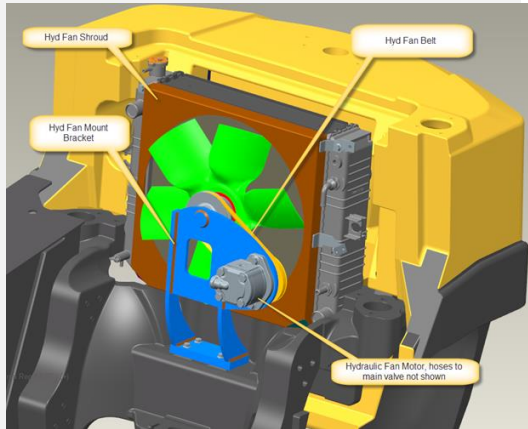
- High temperature hydraulic fluid allows the hydraulic functions to work in a predictable manner and meet the service interval requirement of the hydraulic system in high temperatures when using the Yanmar 2.1L DPF with CAC (44 kW) engine. This is paired with the on-demand cooling system and environmental construction option, hot.



- **STD option or SPED**
- **STD**

## Description

- The On-Demand fan is driven by a hydraulic motor, this allows the forklift truck to control the fan speed based on the coolant and oil temperatures of the truck. As these temperatures rise the fan speed will increase regardless of the engine speed. In most applications this will mean the fan is spinning slower and therefore the sound level of the forklift truck will be reduced (typically 1-2dB).
- On demand cooling also benefits from an automatic reversing feature which blows dirt and debris out of the radiator eliminating/significantly reducing the labour required to manually clean the radiator.



# TSLPS8

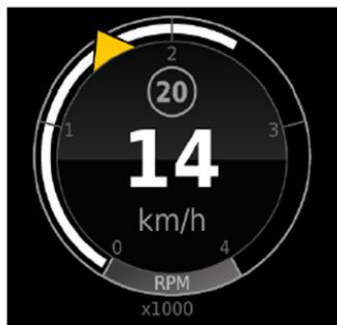
## Traction Speed Limiter pre-set to 13km/h



- **STD option or SPED**
- **STD**

### Description

- This option limits the vehicle to a defined top speed (factory set to 8mph / 13km/h forwards and 5mph / 8km/h in reverse). The speed limit for forward and reverse can be adjusted on the display by Service technicians and Supervisors in 0.5mph / km/h increments between 4-13mph / 6.5-20km/h.
- The set speed limit is shown on the full color display and highlights when activated, clearly informing the operator that the limiter is activated.



*Driving meter with rpm gauge and speed limit*



*Driving meter with rpm gauge and exceeded speed limit*

- A visual indication of the speed limit of the truck shows up within the speed indicator meter. Once the speed limit is reached, the limit icon changes from gray to white. The icon is positioned above the main meter information. (Images below show limiter in position above an actual speed reading)

# TLSPDI

## Travel Speed Indicator



- **STD option or SPED**
- **STD**



Example of operator screen with two meters one above another and two sidebar gauges

### Description

- The current forklift truck calculated speed is displayed on the full color display in a round meter format. Miles per hour (MPH) or kilometers per hour (km/h) can be shown by selecting the unit of measure in the display settings.

- **STD option or SPED**
- STD

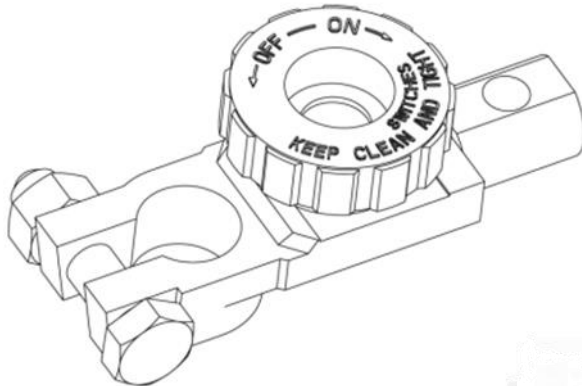
## Description

- A technician settable limit can be set via the full color display. If this speed is exceeded a distinctive audible signal communicates to the operator. This helps to inform the operator of their speed without taking their eyes from driving. This is suitable for operations where customers desire an audible signal for when operators exceed a set speed limit.
- This option can also be used in conjunction with the travel speed limiter and indicator.

- **STD option or SPED**
- **STD**

### Description

- The Battery disconnect option uses a special connection / link to the battery negative terminal. This special link has a rotary knob that allows the battery to be disconnected quickly. This option can be useful when forklift trucks need to be left un-used for long periods or isolated for safety reasons. This option is legislatively required in Russia.



- **STD option or SPED**
- **STD**

### Description

- The high capacity starter battery can be selected whenever a customer wants additional battery capacity for starting in cold conditions or for longer battery service between charges when a forklift truck is stored or inactive.
- The high capacity starter battery is a part of the environmental package selection and will be automatically specified depending on the package selection.
- If the truck is operating in  $-20^{\circ}\text{C}$  to  $-30^{\circ}\text{C}$  this option should be selected along with the 240V Engine Block Heater (EBH220).

Usage	Standard battery cold cranking current (CCA) in Amps	High capacity battery cold cranking current (CCA) in Amps
Yanmar 2.2L (All)	475	530
Yanmar 2.1 L Cert. (AM)	530	700
Yanmar 2.1 L Cert. (EUR)	550	700
Yanmar DSL IDI non-cert. (All)	700	n/a

# STRBAD

## Starter Battery Dongle

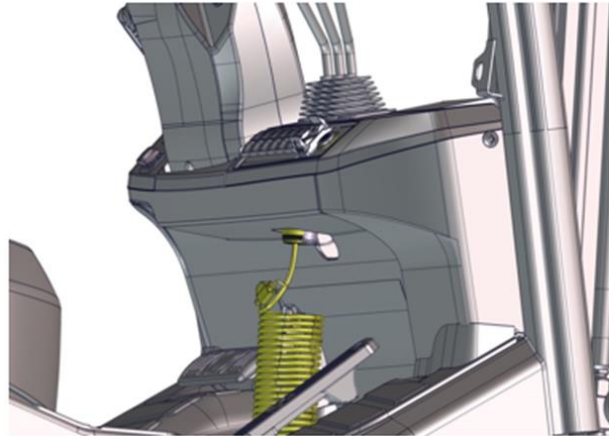


- **STD option or SPED**
- **STD**



### Description

- The Starter Battery dongle provides a “no tools required” way of trickle charging the starter battery of the forklift truck. The dongle plugs into the diagnostic port of the forklift truck and does not require the removal of floor plates, mats or panels. The 6m long cable makes connection to a power source easy and can be used for all A/N series forklift trucks.
- The dongle plugs into the 9-pin truck diagnostic port that is accessed through the kick panel. The dongle is roughly 6m long and terminates in a common SAE/bullet-style battery plug (as used on most motorcycles and common to the majority of battery chargers).



# Lift Options



<a href="#">2 Stage Limited Free Lift</a>
<a href="#">2 Stage Full Free Lift</a>
<a href="#">3 Stage Full Free Lift</a>
<a href="#">Mast Dimensions</a>
<a href="#">Without Mast</a>
<a href="#">Mast Removed for Shipping</a>
<a href="#">1070mm Carriage – Class 2/3</a>
<a href="#">1070mm Integral Sideshift Carriage – Class 2/3</a>
<a href="#">1070mm Integral Sideshift Carriage with Fork Positioner – Class 2/3</a>
<a href="#">1220mm Hook Type Carriage – Class 2/3</a>
<a href="#">1220mm Hook Type Integral Sideshift Carriage Class III</a>
<a href="#">1220mm Integral Sideshift Carriage with Fork Positioner - Class 3</a>
<a href="#">Integral Sideshift Carriage with Premium Fork Positioner</a>
<a href="#">Less Carriage</a>
<a href="#">Without Forks</a>
<a href="#">Hook Type Standard Taper Forks</a>
<a href="#">Without Load Backrest</a>
<a href="#">915mm High Load Backrest</a>
<a href="#">915mm Load Backrest Drop Center class 2/3</a>
<a href="#">1220mm High Load Backrest</a>
<a href="#">1524mm High Load Backrest</a>
<a href="#">Tilt 6° Forward / 6° Back</a>
<a href="#">Tilt 10° Forward / 6° Back</a>
<a href="#">With Tilt Cylinder Boots</a>
<a href="#">Hydraulic Accumulator</a>
<a href="#">Fork Laser Level Line</a>
<a href="#">Height Selector</a>

<a href="#">Manual lever hydraulic controls</a>
<a href="#">Mechanical Lever Hydraulic Controls - With Return to Set Tilt</a>
<a href="#">Mechanical lever hydraulic controls, designed for clamping applications</a>
<a href="#">Mechanical lever hydraulic controls - With Return to Set Tilt, designed for clamping applications</a>
<a href="#">Mini-Lever Hydraulic Controls</a>
<a href="#">Mini-Lever Hydraulic Controls with Return to Set Tilt Function</a>
<a href="#">Mini-Lever Hydraulic Controls with Clamping Function</a>
<a href="#">Mini-Lever Hydraulic Controls with Return to Set Tilt and Clamping Function</a>
<a href="#">Joystick Hydraulic Controls</a>
<a href="#">Joystick Hydraulic Controls with Return to Set Tilt Function</a>
<a href="#">Joystick Hydraulic Controls with Clamping Function</a>
<a href="#">Joystick Hydraulic Controls with Return to Set Tilt and Clamping Function</a>
<a href="#">2 Function (0 Auxiliary) Hydraulic Valve</a>
<a href="#">3 Function (1 Auxiliary) Hydraulic Valve</a>
<a href="#">4 Function (2 Auxiliary) Hydraulic Valve</a>
<a href="#">3 Function Hose Group (1 Auxiliary)</a>
<a href="#">4 Function Hose Group (2 Auxiliary)</a>
<a href="#">Without Hose Group</a>
<a href="#">Attachment Extension Tubes &amp; Quick Disconnects</a>
<a href="#">Standard Displacement Hydraulic Pump</a>
<a href="#">On Demand Hydraulic Pump</a>



# Mast type

## 2 Stage Limited Free Lift



- **STD option or SPED**
- **STD**



### Description

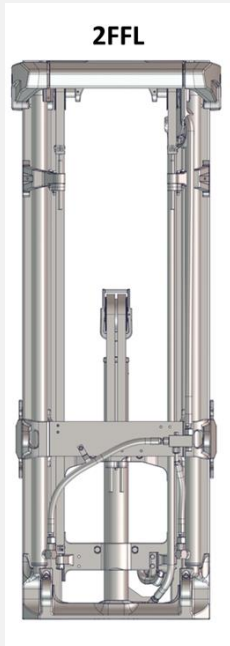
- The 2 stage limited free lift (2LFL) mast has the narrowest mast stack of all mast types and no free lift cylinder, meaning that this is the best mast to choose if forward visibility is important. It is also the cheapest form of mast.
- A 2LFL mast has an outer and inner mast and a lift carriage (typically with forks). When the operator lifts the mast both the carriage and the inner mast move upwards. This means that the mast height will increase even at modest lift heights making it unsuitable for applications like container stuffing, lorry loading from the rear or any application where there are height restrictions directly above the operating forklift truck.
- 2 stage limited free lift masts that are for high lift heights (above 5m) can also be very long and consideration should be made to transportation and manual handling.

# Mast type

## 2 Stage Full Free Lift



- **STD option or SPED**
- **STD**



### Description

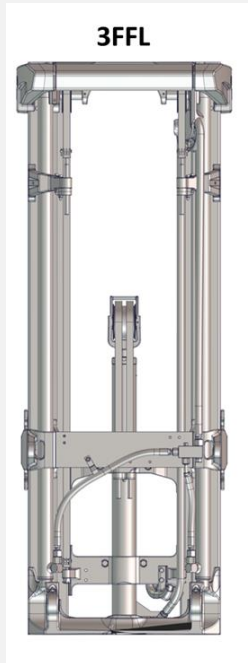
- The 2 stage full free lift (2FFL) mast has the same narrow mast stack of the 2LFL mast but is fitted with a free lift cylinder. This creates a good compromise between forward visibility and being able to work in applications where there are height restrictions. This is the cheapest form of free lift mast however it is limited in total lift height.
- A 2FFL mast has an outer and inner mast, together with a free lift cylinder and carriage (typically with forks). When the operator lifts initially the free lift cylinder extends giving the operator the ability to lift a load without extending the mast up. This allows use in areas where there are height restrictions directly above the forklift truck.

# Mast type

## 3 Stage Full Free Lift



- **STD option or SPED**
- **STD**



### Description

- The 3 stage full free lift (3FFL) mast uses optimized mast channels to allow high lift heights and low closed heights while maintaining excellent visibility. These features give the greatest flexibility of operation and make this style of mast the most popular for applications where multiple tasks need to be carried out.
- A 3FFL mast has an outer, intermediate and inner mast, together with a free lift cylinder and carriage (typically with forks). When the operator lifts initially the free lift cylinder extends giving the operator the ability to lift a load without extending the mast up. This allows use in areas where there are height restrictions directly above the forklift truck.

# Mast type

# Mast Dimensions



- **STD option or SPED**
- **STD**

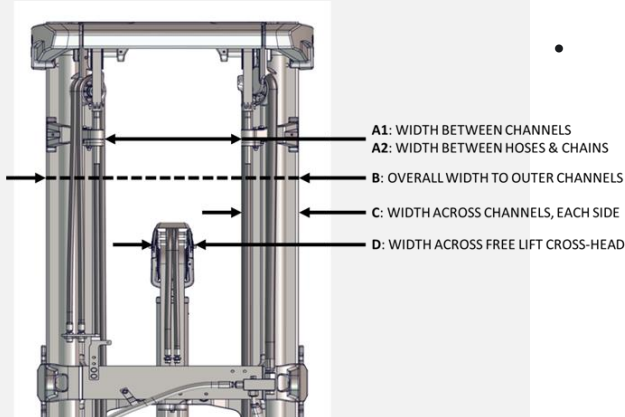
## Description

- Top table:
  - Series N dimensions

(mm)	A1: WIDTH BETWEEN CHANNELS	A2: WIDTH BETWEEN HOSES & CHAINS	B: OVERALL WIDTH TO OUTER CHANNELS	C: WIDTH ACROSS CHANNELS, EACH SIDE	D: WIDTH ACROSS FREE LIFT CROSS- HEAD
Series N 1-2 Ton Mast Families					
2LFL	444	330	610	83	110
2FFL	444	369		83	
3FFL	356	302		127	
4FFL	314	215		185	
Series N 2-3.5T Mast Families					
2LFL	512	373	684	86	110
2FFL	512	400		86	
3FFL	404	364		140	
4FFL	314	215		185	

- Lower table:
  - Competitor dimensions

(mm)	A1: WIDTH BETWEEN CHANNELS	A2: WIDTH BETWEEN HOSES & CHAINS	B: OVERALL WIDTH TO OUTER CHANNELS	C: WIDTH ACROSS CHANNELS, EACH SIDE	D: WIDTH ACROSS FREE LIFT CROSS-HEAD
VX 1-2t	227	206	565	144	177
Series N 1-2T	356	303	610	127	114
MX 2-3.5t	320	270	650	160	135
VX 2-3.5t	320	270	650	160	135
Series N 2-3.5T	404	364	684	140	110
Toyota Core IC	420	355	685	135	170
Linde 39X	330	260	590	130	120
Linde 1202	310	310	665	130(LH)/165(RH)	120



- **STD option or SPED**
- **STD**

### Description

- For use when a customer or dealer already has a suitable spare mast or has purchased another mast for the forklift truck.

# MASTRM

## Mast Removed for Shipping



- **STD option or SPED**
- **STD**

### Description

- For taller masts this is required to allow shipping of the forklift truck or to reduce potential damage during transit. Some locations also may prefer to receive forklift trucks with the mast removed due to unique receiving restrictions or environments.

C106C2  
C106C3

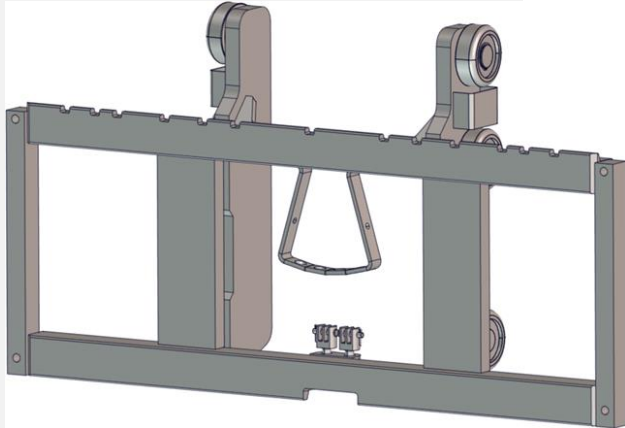
## 1070mm Carriage – Class 2/3



- **STD option or SPED**
- **STD**

### Description

- The Hook type carriage gives a tough, high visibility method to mount the fork of the truck to the mast. Fork position is adjusted manually and is best suited to applications moving loads where regular fork positions are required and where less accurate load placement is required.
- This carriage offers the lowest cost, least complexity and highest visibility in our range and is an update of a design used for the last 15 years.



# SS1062 SS1063

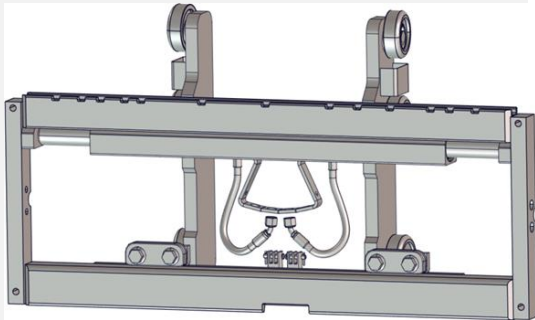
## 1070mm Integral Sideshift Carriage – Class 2/3



- **STD option or SPED**
- **STD**

### Description

- The integrated side shifting carriage is based off the same tough, rigid and high visibility structure used in the hook type carriage but has the added benefit of being able to side shift the forks. This allows loads to be positioned more quickly and accurately giving the operator fine control of “side to side” load position rather than having to re-maneuver the forklift truck.
- Fork position is adjusted manually so is best suited for applications that move loads with regular fork position requirements. Through carriage visibility is slightly reduced when compared to a hook type carriage due to the hydraulic actuator positioned on the upper carriage frame.
- This sideshifting carriage has been developed with the Bolzoni group and utilizes their industry proven knowledge and includes “threadless” gland nuts and improved lower hook bearing to maximize reliability and minimize maintenance.





FP1062  
FP1063

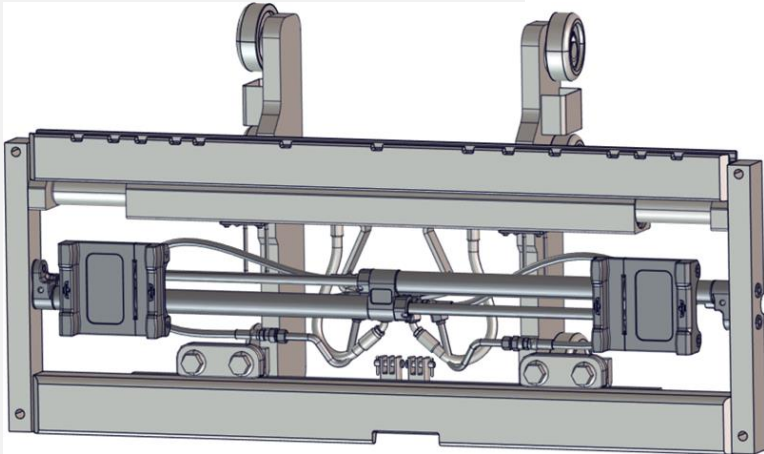
# 1070mm Integral Sideshift Carriage with Fork Positioner – Class 2/3



- **STD option or SPED**
- **STD**

## Description

- The integrated sideshifting fork positioner carriage provides a solution for applications needing accurate positioning of loads via side shift as well as the ability to hydraulically adjust the fork position, making this carriage ideal for applications where multiple fork positions are required.
- The robust design has been proven over the last 15 years and offers an excellent compromise between function, reliability and visibility.



CH2121  
CH1219

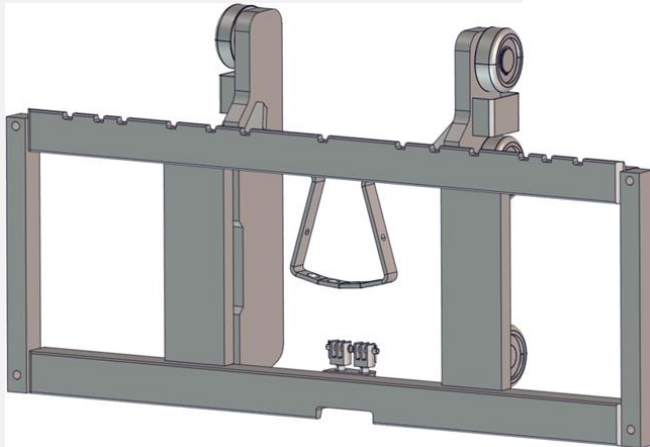
# 1220mm Hook Type Carriage – Class 2/3



- **STD option or SPED**
- **STD**

## Description

- The Hook type carriage gives a tough, high visibility method to mount the fork of the truck to the mast. Fork position is adjusted manually and is best suited to applications moving loads where regular fork positions are required and where less accurate load placement is required.
- This carriage offers the lowest cost, least complexity and highest visibility in our range and is an update of a design used for the last 15 years.



# SH1219

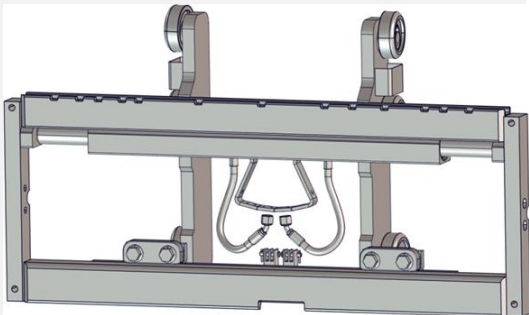
## 1220mm Hook Type Integral Sideshift Carriage Class III



- **STD option or SPED**
- **STD**

### Description

- The integrated side shifting carriage is based off the same tough, rigid and high visibility structure used in the hook type carriage but has the added benefit of being able to side shift the forks. This allows loads to be positioned more quickly and accurately giving the operator fine control of “side to side” load position rather than having to re-maneuver the forklift truck.
- Fork position is adjusted manually so is best suited for applications that move loads with regular fork position requirements. Through carriage visibility is slightly reduced when compared to a hook type carriage due to the hydraulic actuator positioned on the upper carriage frame.
- This sideshifting carriage has been developed with the Bolzoni group and utilizes their industry proven knowledge and includes “threadless” gland nuts and improved lower hook bearing to maximize reliability and minimize maintenance.



# IS12F3

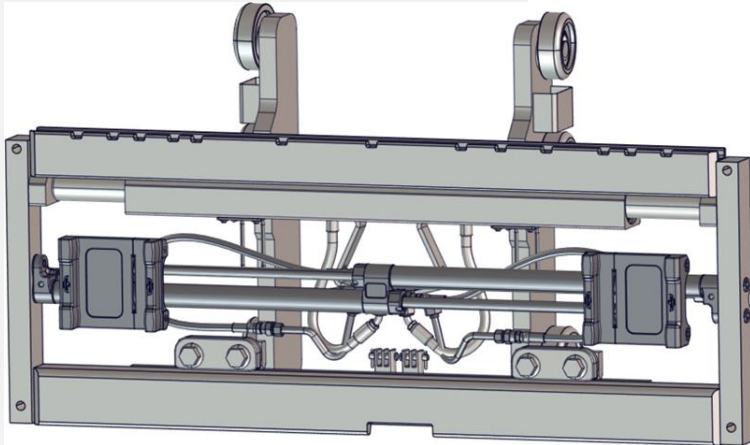
## 1220mm Integral Sideshift Carriage with Fork Positioner - Class 3



- **STD option or SPED**
- **STD**

### Description

- The integrated sideshifting fork positioner carriage provides a solution for applications needing accurate positioning of loads via side shift as well as the ability to hydraulically adjust the fork position, making this carriage ideal for applications where multiple fork positions are required.
- The robust design has been proven over the last 15 years and offers an excellent compromise between function, reliability and visibility.

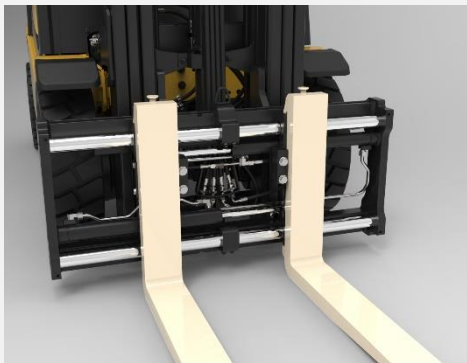


FP102S  
FP103S  
FP123S

# Integral Sideshift Carriage with Premium Fork Positioner



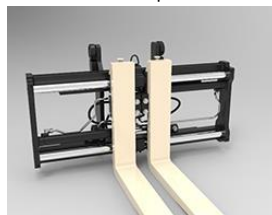
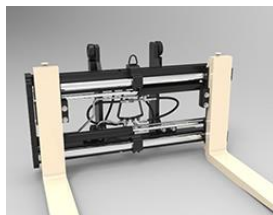
- STD option or SPED
- SPED



## Description

- Premium fork positioners are ideal for heavy duty applications where high frequency of fork positioning is required, or in applications with high levels of dust and dirt.
- Key features:
  - Utilises standard sideshift cylinder and components
  - Bushings in side-plates for easy replacement of shafts
  - Long life bushings with internal grease reservoir resulting in >1000h service intervals
  - Fork carriers mounted on large diameter and greaseable shafts
  - Larger hydraulic cylinders than the standard fork positioners
  - Supports ISO forks up to 2400 mm long and up to 120 mm wide (class ISO2) and up to 125 mm wide (class ISO3)
  - Synchronised fork adjustment is achieved by exchanging oil between cylinders, and calibrating oil volumes each time the forks are closed
  - Can also be used with bolt-on forks
- Capacity de-rating
  - Due to the additional robustness of the premium sideshifting fork positioners the residual lifting capacities are slightly lower than those for the standard versions shown in the spec sheets. Capacity tables will be added to the Counterbalance SPED option list in the partner

Truck models	NOVO option code	Width	Sideshift	Fork mounting class	Min/max opening range (outside of forks)
GDP/GLP2.0N GDP/GLP2.5N GDP/GLP2.5N6	FP102S	1060mm	+/- 100mm	2A	309-945mm
GDP/GLP3.0N GDP/GLP3.5N	FP103S	1060mm	+/- 100mm	3A	330-960mm
GDP/GLP3.0N GDP/GLP3.5N	FP123S	1220mm	+/- 100mm	3A	330-1120mm



- **STD option or SPED**
- STD

### Description

- The less carriage option should be selected when a suitable 3rd party integrated attachment has been specified. Please remember to check for attachment suitability with the application solutions team.

- **STD option or SPED**
- STD

### Description

- Unit will be shipped without forks. Forks may not be needed because customer has an attachment to be installed or has alternative forks already planned for the unit. Incomplete nameplate issued from factory with this option; dealer must request complete nameplate with attachment fitted to forklift truck in field.

FO0006 / FO0065  
FO0140 / FO0014  
FO0070 / FO0148

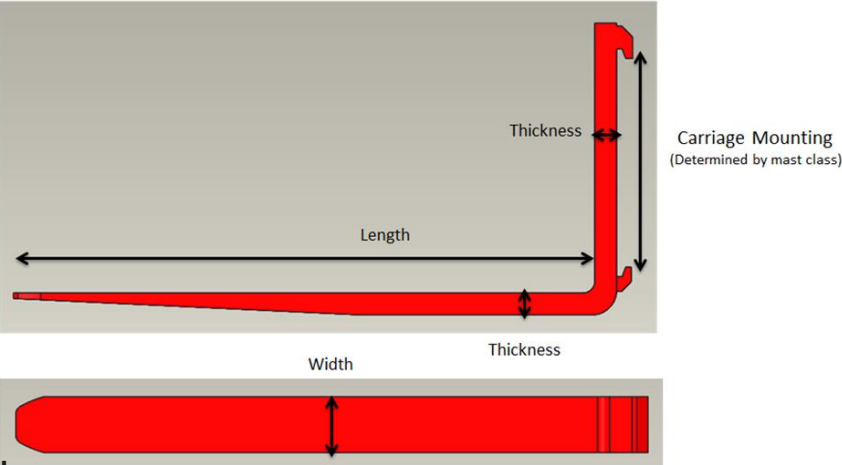
# Hook Type Standard Taper Forks



- **STD option or SPED**
- **STD**

## Description

- Standard Taper forks are the most common fork type on forklift trucks less than 3500Kg. Hook feature is industry standard and allows adjustment of fork position. These forks are best suited for standard palletized loads.



NOVO Part #	Option #	Option Short Descriptions	
		AMERICAS	EMEA
FONONE	1	Without Forks	Without Forks
FO0006			1000mm x 100mm x 40mm Hook Type Standard Taper Forks - Class 2
FO0065			1100mm x 100mm x 40mm Hook Type Standard Taper Forks - Class 2
FO0140			1200mm x 100mm x 40mm Hook Type Standard Taper Forks - Class 2
FO0014			1000 x 120 x 50mm Hook Type Standard Taper Forks - Class 3
FO0070			1100 x 120 x 50mm Hook Type Standard Taper Forks - Class 3
FO0148			1200 x 120 x 50mm Hook Type Standard Taper Forks - Class 3



- **STD option or SPED**
- **STD**

## Description

- For customers that do not require a load backrest due to loads being secured and/or not able to fall backwards during tilt back or braking/acceleration. This option may also be considered when the load is short and overhead clearance to infrastructure does not allow a load backrest. If a 3rd party attachment is used a backrest may or may not be required, please check with the application solutions team.

- **STD option or SPED**
- **STD**

## Description

- Load backrests are designed to prevent the load from falling toward the operator. This allows product to rest against a square, flat surface that assists in retaining stability of the loads.
- The load backrest has been optimized to maximize operator visibility with protective bars positioned behind mast components and angled surfaces to minimize obstruction to the operator when viewing a load in a low position.
- The height of the load backrest is measured from the top of the forks to the top of the load backrest and should be selected based on the typical height of the load being carried by the forklift truck. The additional load backrest height should be considered in any overhead obstruction calculations.



LB915L  
LB336L

# 915mm Load Backrest Drop Center class 2/3



- STD option or SPED
- STD

## Description

- Load backrests are designed to prevent the load from falling toward the operator. This allows product to rest against a square, flat surface that assists in retaining stability of the loads.
- The load backrest has been optimized to maximize operator visibility with protective bars positioned behind mast components and angled surfaces to minimize obstruction to the operator when viewing a load in a low position.
- The height of the load backrest is measured from the top of the forks to the top of the load backrest and should be selected based on the typical height of the load being carried by the forklift truck. The additional load backrest height should be considered in any overhead obstruction calculations
- The drop center section of the backrest is lower to clear the racking supports of specific applications.

**DROP CENTER LOAD BACKREST**



- **STD option or SPED**
- **STD**

### Description

- Load backrests are designed to prevent the load from falling toward the operator. This allows product to rest against a square, flat surface that assists in retaining stability of the loads.
- The load backrest has been optimized to maximize operator visibility with protective bars positioned behind mast components and angled surfaces to minimize obstruction to the operator when viewing a load in a low position.
- The height of the load backrest is measured from the top of the forks to the top of the load backrest and should be selected based on the typical height of the load being carried by the forklift truck. The additional load backrest height should be considered in any overhead obstruction calculations.



# LBR60H

## 1524mm High Load Backrest



- **STD option or SPED**
- **STD**

### Description

- Load backrests are designed to prevent the load from falling toward the operator. This allows product to rest against a square, flat surface that assists in retaining stability of the loads.
- The load backrest has been optimized to maximize operator visibility with protective bars positioned behind mast components and angled surfaces to minimize obstruction to the operator when viewing a load in a low position.
- The height of the load backrest is measured from the top of the forks to the top of the load backrest and should be selected based on the typical height of the load being carried by the forklift truck. The additional load backrest height should be considered in any overhead obstruction calculations.



# TI6F6B

## Tilt 6° Forward / 6° Back



- **STD option or SPED**
- **STD**

### Description

- This is the standard tilt configuration for European and American markets and offers enough tilt for the majority of applications.



# T10F6B

## Tilt 10° Forward / 6° Back



- **STD option or SPED**
- **STD**

### Description

- This option offers greater forward tilt than standard which may be useful in certain applications, for example loading while on a ramp. This option should be selected based on an application survey.

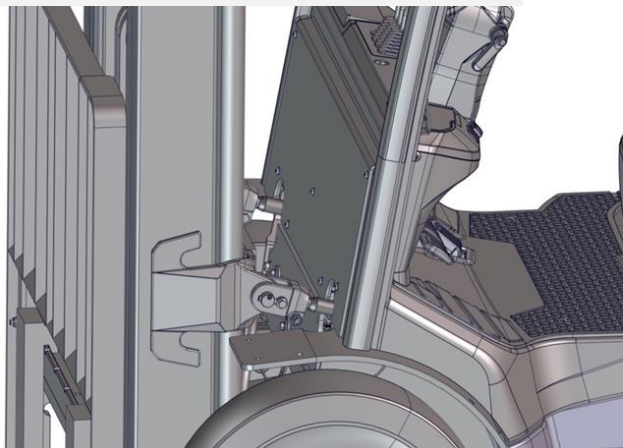


- **STD option or SPED**
- **STD**

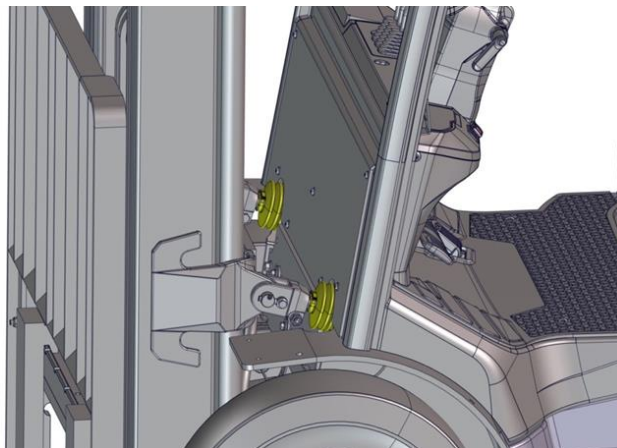
## Description

- Additional rubber boots / gaiters are fitted to cover the tilt cylinder shafts. This extends the life of the tilt cylinders and reduces maintenance of the tilt cylinder seals especially in dirty and/or dusty environments. The boots / gaiters also fill the gap between tilt cylinder and the operator compartment cowl reducing cold air, moisture and dirt from entering a cabin/ close operator compartment

Without Tilt Cylinder Boots



With Tilt Cylinder Boots





# HYDAC1

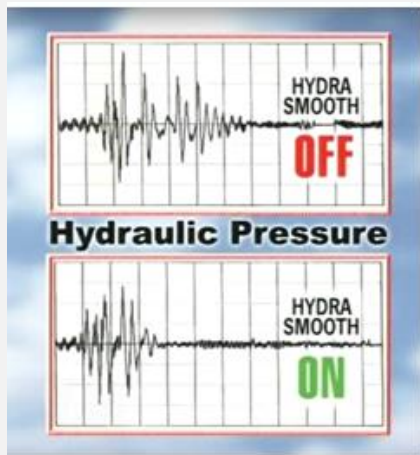
## Hydraulic Accumulator



- STD option or SPED
- STD

### Description

- The hydraulic accumulator acts as a shock absorber for the mast system providing smoother operation and reduced wear to components when a forklift truck is used on uneven surfaces or if high speed changes between lift and lower are required. The benefits include lower noise, up to 60% reduction in vibration transmitted to the operator, extended mast chain life and reduced truck system maintenance. Commonly used in clamping operations.



- STD option or SPED
- STD

### Description

- This option adds a laser to the fork carriage to help the operator quickly and easily see where the forklift truck fork tips will enter a load. The laser line is especially useful for high lift applications or in situations where light levels are low or other lighting solutions may not be suitable. This option helps support operators loading and unloading at height.

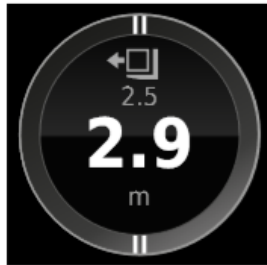


- STD option or SPED
- STD

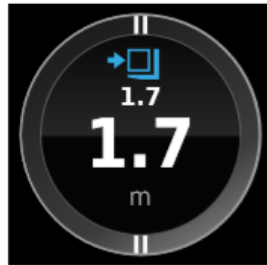
## Description

- This option continuously monitors fork position and will pause the forks at a user defined height speeding up the pickup / put away process for operators. Up to 10 different levels can be programmed and can quickly be selected via the full color touch screen fitted to the forklift truck. Soft stop and start during the lift function means that load will smoothly come to a stop and/or travel through the selected height, minimizing vibration and maximizing operator comfort.

Shelf Height/Selector



Self height indication in meter



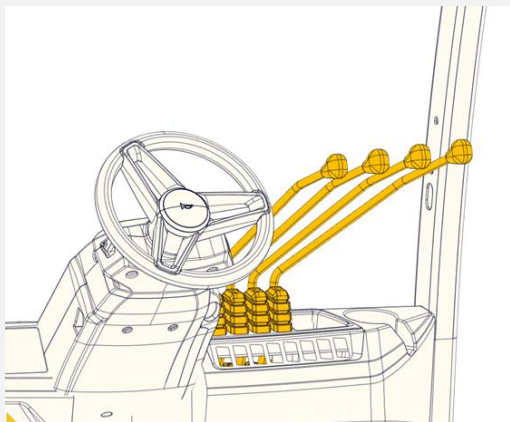
→	A-1	A-3	G-11	H-1	I-1	I-3
	0.8	2.9	1.2	0.4	0.2	2.7
m	A-2	B-1	G-12	H-2	I-2	I-4
	1.8	1.0	1.7	2.4	1.5	4.0
←	A-1	A-3	G-11	H-1	I-1	I-3
	0.8	2.9	1.2	0.4	0.2	2.7
	A-2	B-1	G-12	H-2	I-2	I-4
	1.8	1.0	1.7	2.4	1.5	4.0

Self height indication in switch matrix

- **STD option or SPED**
- **STD**

## Description

- The Mechanical lever hydraulic control option offers the most cost-effective way to control the lift features of the forklift truck. Ergonomically placed levers are mounted to the cowl of the forklift truck and act directly on the valve block offering the operator excellent feel and control.
- Up to 4 functions can be accommodated as well as the Return to set tilt option. However many of the more advanced lift options are only compatible with the Mini lever and Joystick control options.
- Control knob position and spacing has been optimized to allow fingertip control with or without gloves and linkages have been design to minimize free play and vibration.

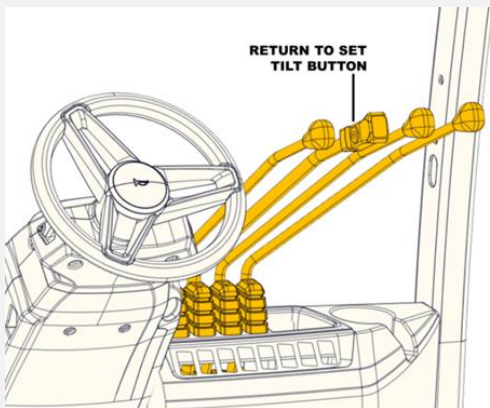


## Mechanical Lever Hydraulic Controls - With Return to Set Tilt

- **STD option or SPED**
- **STD**

### Description

- The Mechanical lever hydraulic control option offers the most cost-effective way to control the lift features of the forklift truck. Ergonomically placed levers are mounted to the cowl of the forklift truck and act directly on the valve block offering the operator excellent feel and control.
- Control knob position and spacing has been optimized to allow fingertip control with or without gloves and linkages have been designed to minimize free play and vibration.
- The addition of the Return to Set Tilt (RTST) function allows the operator to set a defined angle for the mast tilt to stop at between the tilt limits of the forklift truck. This allows faster positioning of loads in repetitive tasks and can reduce damage to sensitive loads. An example of this use would be when a paper roll wants to be lowered on to the floor exactly flat so not to damage an edge. The RTST would allow the mast to pause at the vertical position, removing potential operator error and potential for load damage.



# MECCLC

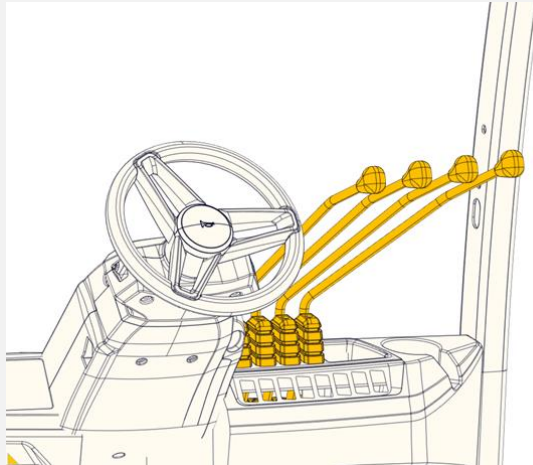
## Mechanical lever hydraulic controls, designed for clamping applications



- **STD option or SPED**
- **STD**

### Description

- The Mechanical lever hydraulic control option offers the most cost-effective way to control the lift features of the forklift truck. Ergonomically placed levers are mounted to the cowl of the forklift truck and act directly on the valve block offering the operator excellent feel and control.
- Control knob position and spacing has been optimized to allow fingertip control with or without gloves and linkages have been designed to minimize free play and vibration. The addition of the clamping feature enables hydraulic functions to be locked and unlocked at the press of a button. This is especially useful for use with 3rd party attachments and allows secure holding of a load without the risk of accidentally touching a control and releasing it which could cause damage.

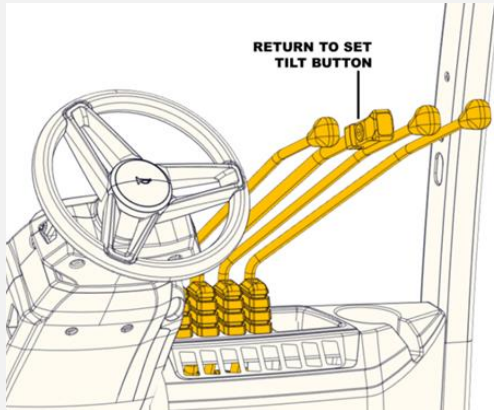


## Mechanical lever hydraulic controls - With Return to Set Tilt, designed for clamping applications

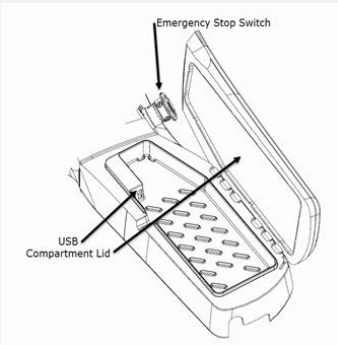
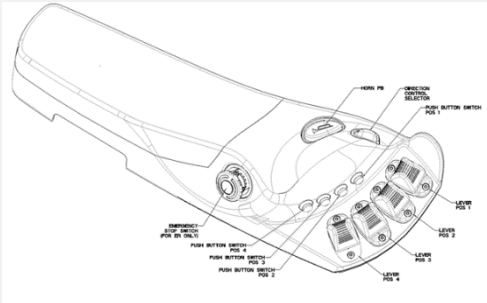
- **STD option or SPED**
- **STD**

### Description

- The Mechanical lever hydraulic control option offers the most cost-effective way to control the lift features of the forklift truck. Ergonomically placed levers are mounted to the cowl of the forklift truck and act directly on the valve block offering the operator excellent feel and control.
- Control knob position and spacing has been optimized to allow fingertip control with or without gloves and linkages have been designed to minimize free play and vibration.
- The addition of the Return to Set Tilt (RTST) function allows the operator to set a defined angle for the mast tilt to stop at between the tilt limits of the forklift truck. This allows faster positioning of loads in repetitive tasks and can reduce damage to sensitive loads. An example of this use would be when a paper roll wants to be lowered on to the floor exactly flat so not to damage an edge. The RTST would allow the mast to pause at the vertical position, removing potential operator error and potential for load damage.
- The addition of the clamping feature enables hydraulic functions to be locked and unlocked at the press of a button. This is especially useful for use with 3rd party attachments and allows secure holding of a load without the risk of accidentally touching a control and releasing it which could cause damage.



- **STD option or SPED**
- **STD**



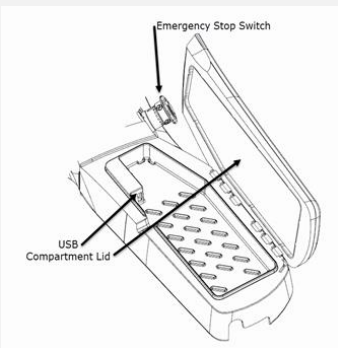
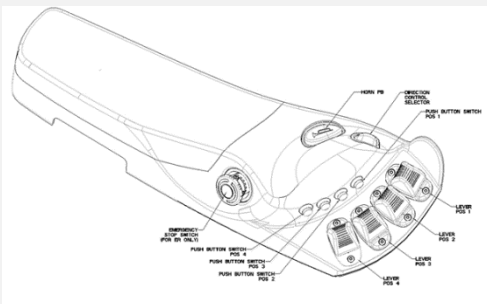
## Description

- The mini lever hydraulic control option has been proven for the last 15 years. The robust textured levers, integrated horn button and excellent ergonomics have been further enhanced with the addition of improved electrical response and an integrated waterproof storage compartment with USB charging socket.
- Precise fingertip control and integrated horn button minimize operator hand/arm movements while supporting the arm, reducing operator fatigue in intensive operations and helping to provide productivity throughout the shift.
- The mini lever option is combined with the electronic control of the hydraulic valve block and allows the full range of options to be specified on the forklift truck, further improving productivity and efficiency.



## Mini-Lever Hydraulic Controls with Return to Set Tilt Function

- **STD option or SPED**
- **STD**

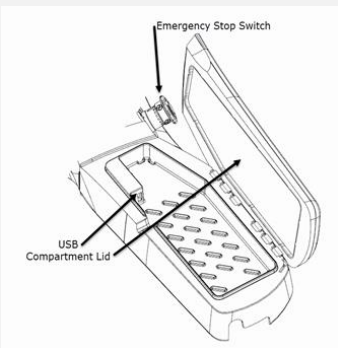
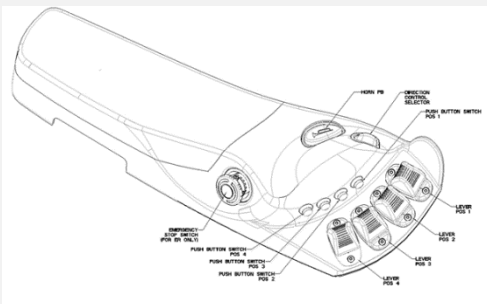


### Description

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- Precise fingertip control and integrated horn button minimize operator hand/arm movements while supporting the arm, reducing operator fatigue in intensive operations and helping to provide productivity throughout the shift.
- The mini lever option is combined with the electronic control of the hydraulic valve block and allows the full range of options to be specified on the forklift truck, further improving productivity and efficiency.
- The addition of the Return to Set Tilt (RTST) function allows the operator to set a defined angle for the mast tilt to stop at between the tilt limits of the forklift truck. This allows faster positioning of loads in repetitive tasks and can reduce damage to sensitive loads. An example of this use would be when a paper roll wants to be lowered on to the floor exactly flat so not to damage an edge. RTST allows the mast to pause at the vertical position, removing potential operator error and potential for load damage.

# Mini-Lever Hydraulic Controls with Clamping Function

- **STD option or SPED**
- **STD**



## Description

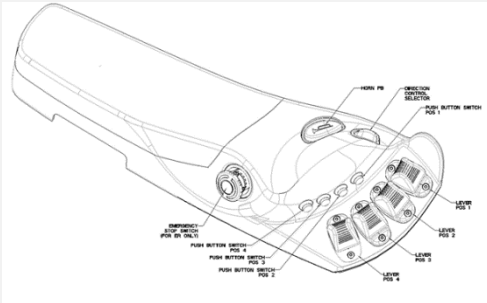
- The mini lever hydraulic control option has been proven for the last 15 years. The robust textured levers, integrated horn button and excellent ergonomics have been further enhanced with the addition of improved electrical response and an integrated waterproof storage compartment with USB charging socket.
- Precise fingertip control and integrated horn button minimize operator hand/arm movements while supporting the arm, reducing operator fatigue in intensive operations and helping to provide productivity throughout the shift.
- The mini lever option is combined with the electronic control of the hydraulic valve block and allows the full range of options to be specified on the forklift truck, further improving productivity and efficiency.
- The addition of the clamping feature enables hydraulic functions to be locked and unlocked at the press of a button. This is especially useful for use with 3rd party attachments and allows secure holding of a load without the risk of accidentally touching a control and releasing it which could cause damage.

# MLHCRC

# Mini-Lever Hydraulic Controls with Return to Set Tilt and Clamping Function

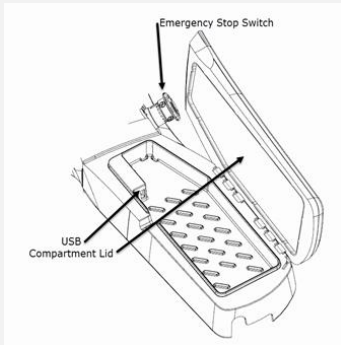


- **STD option or SPED**
- **STD**



## Description

- The mini lever hydraulic control option has been proven for the last 15 years. The robust textured levers, integrated horn button and excellent ergonomics have been further enhanced with the addition of improved electrical response and an integrated waterproof storage compartment with USB charging socket.
- Precise fingertip control and integrated horn button minimize operator hand/arm movements while supporting the arm, reducing operator fatigue in intensive operations and helping to provide productivity throughout the shift.
- The mini lever option is combined with the electronic control of the hydraulic valve block and allows the full range of options to be specified on the forklift truck, further improving productivity and efficiency.
- The addition of the Return to Set Tilt (RTST) function allows the operator to set a defined angle for the mast tilt to stop at between the tilt limits of the forklift truck. This allows faster positioning of loads in repetitive tasks and can reduce damage to sensitive loads. An example of this use would be when a paper roll wants to be lowered on to the floor exactly flat so not to damage an edge. RTST allows the mast to pause at the vertical position, removing potential operator error and potential for load damage.
- The addition of the clamping feature enables hydraulic functions to be locked and unlocked at the press of a button. This is especially useful for use with 3rd party attachments and allows secure holding of a load without the risk of accidentally touching a control and releasing it which could cause damage.

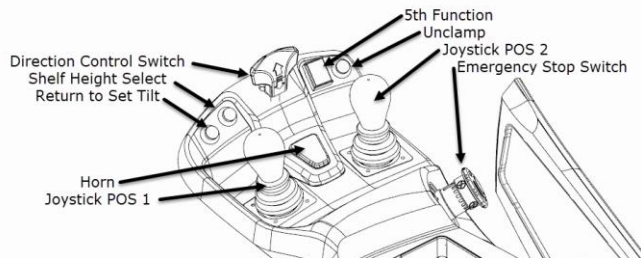


- **STD option or SPED**
- **STD**

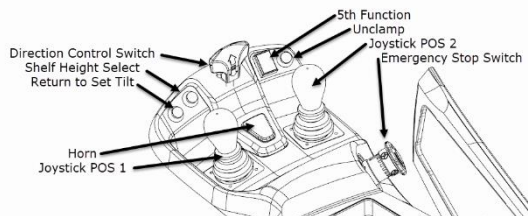


### Description

- The joystick option uses twin joysticks to control the hydraulic functions of the forklift truck. Due to their longer length the twin joysticks provide a greater level of accuracy than the mini levers and are perfect for operators wanting the highest levels of control. The left joystick also allows for dual axis motion, enabling operators to control lift and tilt at the same time increasing productivity. An Integrated direction switch position switch gives fingertip control of direction changes and includes forward, neutral and reverse positions. The armrest also benefits from an integrated waterproof storage compartment with USB charging socket.



- **STD option or SPED**
- **STD**



## Description

- The joystick option uses twin joysticks to control the hydraulic functions of the forklift truck. Due to their longer length the twin joysticks provide a greater level of accuracy than the mini levers and are perfect for operators wanting the highest levels of control. The left joystick also allows for dual axis motion, enabling operators to control lift and tilt at the same time increasing productivity. An Integrated direction switch position switch gives fingertip control of direction changes and includes forward, neutral and reverse positions. The armrest also benefits from an integrated waterproof storage compartment with USB charging socket.
- The addition of the Return to Set Tilt (RTST) function allows the operator to set a defined angle for the mast tilt to stop at between the tilt limits of the forklift truck. This allows faster positioning of loads in repetitive tasks and can reduce damage to sensitive loads. An example of this use would be when a paper roll wants to be lowered on to the floor exactly flat so not to damage an edge. The RTST would allow the mast to pause at the vertical position, removing potential operator error and potential for load damage.

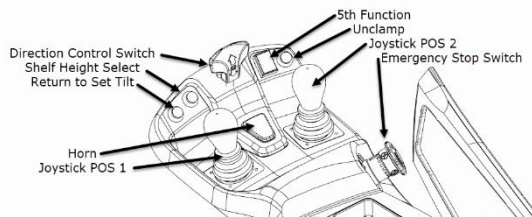
# Joystick Hydraulic Controls with Clamping Function

- **STD option or SPED**
- **STD**

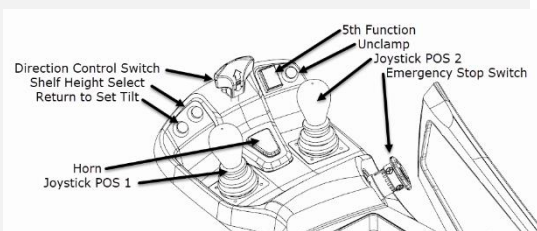


## Description

- The joystick option uses twin joysticks to control the hydraulic functions of the forklift truck. Due to their longer length the twin joysticks provide a greater level of accuracy than the mini levers and are perfect for operators wanting the highest levels of control. The left joystick also allows for dual axis motion, enabling operators to control lift and tilt at the same time increasing productivity. An Integrated direction switch position switch gives fingertip control of direction changes and includes forward, neutral and reverse positions. The armrest also benefits from an integrated waterproof storage compartment with USB charging socket.
- The addition of the clamping feature enables hydraulic functions to be locked and unlocked at the press of a button. This is especially useful for use with 3rd party attachments and allows secure holding of a load without the risk of accidentally touching a control and releasing it which could cause damage.



- **STD option or SPED**
- **STD**



## Description

- The joystick option uses twin joysticks to control the hydraulic functions of the forklift truck. Due to their longer length the twin joysticks provide a greater level of accuracy than the mini levers and are perfect for operators wanting the highest levels of control. The left joystick also allows for dual axis motion, enabling operators to control lift and tilt at the same time increasing productivity. An Integrated direction switch position switch gives fingertip control of direction changes and includes forward, neutral and reverse positions. The armrest also benefits from an integrated waterproof storage compartment with USB charging socket.
- The addition of the Return to Set Tilt (RTST) function allows the operator to set a defined angle for the mast tilt to stop at between the tilt limits of the forklift truck. This allows faster positioning of loads in repetitive tasks and can reduce damage to sensitive loads. An example of this use would be when a paper roll wants to be lowered on to the floor exactly flat so not to damage an edge. The RTST would allow the mast to pause at the vertical position, removing potential operator error and potential for load damage.
- The addition of the clamping feature enables hydraulic functions to be locked and unlocked at the press of a button. This is especially useful for use with 3rd party attachments and allows secure holding of a load without the risk of accidentally touching a control and releasing it which could cause damage.

## 2 Function (0 Auxiliary) Hydraulic Valve



- **STD option or SPED**
- STD

### Description

- Hydraulic function determines the amount of available hydraulic circuits and control functionality for the forklift user. The 2 Functions (0 Auxiliary) option provides the basic functionality required for operation of a lift forklift truck.
- 1st function raises and lowers the mast
- 2nd function tilts the mast forward and back
- This option is only available with the mechanical hydraulic control option and is only suitable for use with the basic hook type carriage.

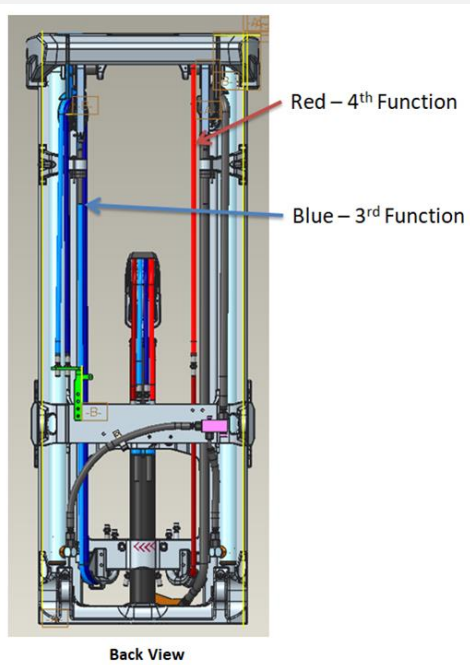


# HCV3CB

## 3 Function (1 Auxiliary) Hydraulic Valve



- **STD option or SPED**
- **STD**



### Description

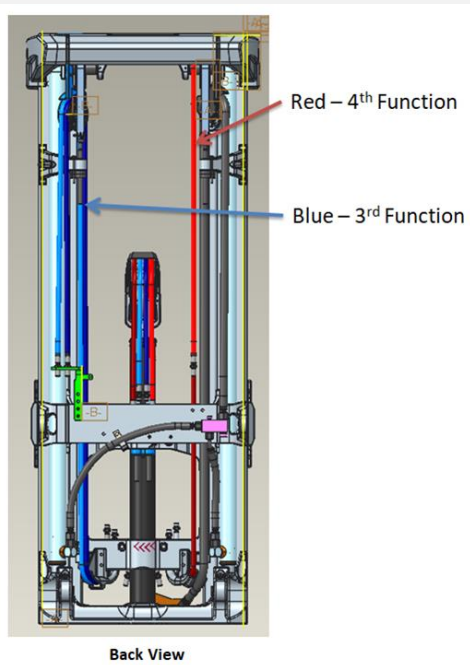
- Hydraulic function determines the amount of available hydraulic circuits and control functionality for the forklift user. The 3 Functions (1 Auxiliary) option provides the basic functionality required for operation of a lift truck and an additional auxiliary function
- 1st function raises and lowers the mast
- 2nd function tilts the mast forward and back
- 3rd function is typically used for side shift but can be used for other attachment functions
- This option is automatically selected if an integrated side-shifting carriage is selected and adds auxiliary hydraulic hose routings through the mast to the carriage. For attachment use auxiliary tubes are typically required.

# HCV4CB

## 4 Function (2 Auxiliary) Hydraulic Valve



- **STD option or SPED**
- **STD**



### Description

- Hydraulic function determines the amount of available hydraulic circuits and control functionality for the forklift user. The 4 Functions (2 Auxiliary) option provides the basic functionality required for operation of a lift truck and two additional auxiliary functions
- 1st function raises and lowers the mast
- 2nd function tilts the mast forward and back
- 3rd function is typically used for side shift but can be used for other attachment functions
- 4th function is typically used for fork positioning but can be used for other attachment functions
- This option is automatically selected if an integrated side-shifting fork positioner carriage is selected and adds auxiliary hydraulic hose routings through the mast to the carriage. This option would also be selected if there were a combination of carriage requirements, for example – Integral side-shifting and an attachment. For attachment use auxiliary tubes are typically required.

1A2SLF  
1A2SFF  
1A3SFF

## 3 Function Hose Group (1 Auxiliary)



- **STD option or SPED**
- **STD**

### Description

- Hose groups perform the function of transferring hydraulic fluid from the hydraulic valve block to the mast carriage. 3 function hoses provide a single additional hydraulic function to the carriage and is pre-selected when an integrated side-shifting carriage is selected. This would also be suitable for hang-on side shift carriages or other attachments requiring a single hydraulic feed.

2A2SLF  
2A2SFF  
2A3SFF

## 4 Function Hose Group (2 Auxiliary)



- **STD option or SPED**
- **STD**

### Description

- Hose groups perform the function of transferring hydraulic fluid from the hydraulic valve block to the mast carriage. 4 function hoses provide two additional hydraulic functions to the carriage and is pre-selected when an integrated side-shifting fork positioner carriage is selected. This would also be suitable for hang-on side shift fork positioner carriages or other attachments requiring a two hydraulic feeds.

- **STD option or SPED**
- **STD**

### Description

- Supplies the forklift truck without mast hoses. This option is suitable for forklift trucks sold without a mast or if the customer is having the hoses custom made.

# Attachment Extension Tubes & Quick Disconnects

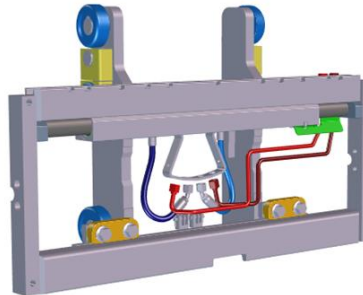
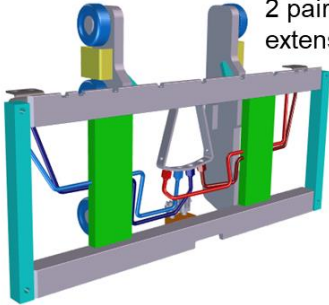


- **STD option or SPED**
- **STD**

## Description

- The attachment extension tubes provide a robust, durable solution to have easy access for auxiliary hydraulic flow to support attachments. These mount to the carriage, and connect to the auxiliary function header hoses on the mast assembly.
- Quick disconnects provide the ability to have fast front end attachment swaps without the mess and hassle that comes with disconnecting hydraulic lines and fittings. All valve blocks allow pressure drain on engine switch off allowing fittings to be disconnected without pressure being in the lines.

Standard carriage with  
2 pair attachment  
extension tubes fitted



ISS carriage with 1 pair  
attachment extension  
tubes fitted



Quick disconnect end fittings

# HPSTDI

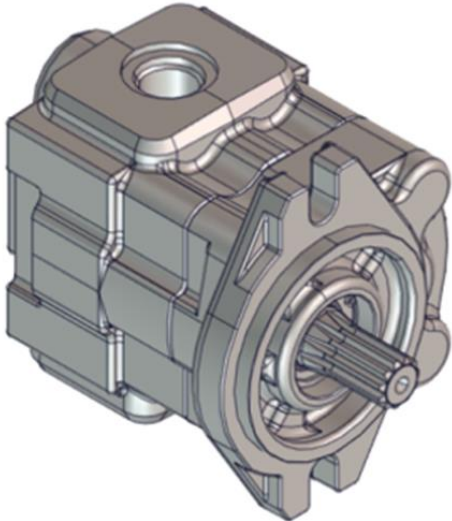
## Standard Displacement Hydraulic Pump



- **STD option or SPED**
- **STD**

### Description

- This option provides the forklift truck with all the required hydraulic pressure for the mast hydraulic systems. The standard displacement style of pump uses a continually turning pump shaft to provide hydraulic pressure. This style of system is the same that has been fitted to MX, VX and ERP forklift trucks.
- Also known as “CDP” or Constant Displacement Pump

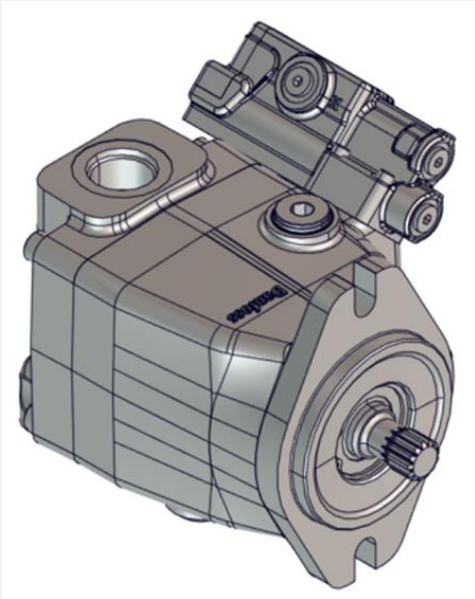


# HPONDE

## On Demand Hydraulic Pump



- **STD option or SPED**
- **STD**



### Description

- This option uses an axial piston pump to provide the forklift truck with all the required hydraulic pressure for the mast hydraulic systems. With a load sensing design, the pump regulates flow as required by the operator producing less heat and improving fuel efficiency. Forklift trucks fitted with this option conducting a VDI 2198 test showed up to 10% lower fuel use than the standard displacement option.
- Also known as “VDP” or Variable Displacement Pump



# Chassis (1/2)

<a href="#">Standard Tread Width</a>
<a href="#">Wide Tread Width</a>
<a href="#">Dual Tread Width</a>
<a href="#">Tyre Class - Standard</a>
<a href="#">Tyre Class - Premium</a>
<a href="#">Drive &amp; Steer Tyres - Pneumatic Tyres</a>
<a href="#">Drive &amp; Steer Tyres - Super Elastic Tyres</a>
<a href="#">Drive &amp; Steer Tyres - Non-Marking Super Elastic Tyres</a>
<a href="#">Drive &amp; Steer Tyres - Pneumatic Radial Tyres</a>
<a href="#">Front Mud Guards</a>
<a href="#">2160mm Figure 8 Tube</a>
<a href="#">Grid Style Overhead Guard</a>
<a href="#">Clear View Overhead Guard</a>
<a href="#">Clear View Overhead Guard - Cab Ready</a>
<a href="#">2160mm Rectangular Tube - High</a>
<a href="#">2095mm Rectangular Tube - Low</a>
<a href="#">Glass Top and Front Screen</a>
<a href="#">Glass Top, Front and Rear Screen</a>
<a href="#">Glass Top, Front and Rear Top Screen with PVC Doors</a>
<a href="#">Glass Top, Front and Rear Top Screen with Steel Doors</a>
<a href="#">Polycarbonate Rain Top for Overhead Guard</a>
<a href="#">High Specification Cab</a>
<a href="#">Air Conditioning</a>
<a href="#">Cab Heater</a>
<a href="#">Top Wiper</a>
<a href="#">Load Weight Display</a>
<a href="#">Rear Drive Handle with Horn Button</a>

<a href="#">Dual Mirrors Side View</a>
<a href="#">Panoramic Mirror</a>
<a href="#">Operator Fan</a>
<a href="#">Sun Shade Top Roller</a>
<a href="#">Sun Shade Front Roller</a>
<a href="#">12 Volt Auxiliary Supply</a>
<a href="#">12 Volt Power Supply with 2 USB Charging Ports</a>
<a href="#">Accessory Mounting Post</a>
<a href="#">RF Handheld Scanner Holder</a>
<a href="#">Drink Holder</a>
<a href="#">Tape Roll Holder</a>
<a href="#">Mobile Device Holder</a>
<a href="#">Tablet Holder</a>
<a href="#">Swing Out Accessory Arm</a>
<a href="#">Monitor Mount</a>
<a href="#">Shrink Wrap Holder</a>
<a href="#">Console Tray</a>
<a href="#">Reading light</a>
<a href="#">String Cutter</a>
<a href="#">Foot Direction Control</a>
<a href="#">Integrated Directional Switch</a>
<a href="#">Steering Column Mounted Directional Control</a>
<a href="#">Steer Column with Infinitely Adjustable Tilt</a>
<a href="#">Telescopic and Tilt Steering Column</a>
<a href="#">Steering Wheel with Spinner Knob</a>

# Chassis (2/2)

<a href="#">On Demand Power Steering</a>
<a href="#">On Demand Power Steering with Synchronous Steering</a>
<a href="#">Standard Display: 127mm Colour Touchscreen</a>
<a href="#">Premium Display: 178mm Colour Touchscreen</a>
<a href="#">71mm Color Touchscreen Display</a>
<a href="#">Rear View Camera System Integrated in Digital 178mm Color Display</a>
<a href="#">Full Suspension Vinyl Seat</a>
<a href="#">Full Suspension Vinyl Seat - Value</a>
<a href="#">Full Suspension Cloth Seat</a>
<a href="#">Air Ride Full Suspension Vinyl Seat</a>
<a href="#">Air Ride Full Suspension Cloth Seat</a>
<a href="#">Full Suspension Vinyl Seat – Low Profile</a>
<a href="#">Standard Seat Belt</a>
<a href="#">Hi Vis Red Seat Belt</a>
<a href="#">Hi Vis Red Seat Belt with interlock</a>
<a href="#">Hood</a>
<a href="#">Vented Hood</a>
<a href="#">Belly Screen</a>
<a href="#">Tie Downs</a>
<a href="#">Dynamic Stability System</a>
<a href="#">Dynamic Stability System</a>
<a href="#">Speed Reduction in Corners</a>
<a href="#">Telemetry Antenna Delete</a>
<a href="#">Yale Vision Wireless Monitoring – with Cellular Connectivity</a>
<a href="#">Yale Vision – Wireless Access HID/ISO</a>
<a href="#">Yale Vision – Wireless Verification</a>

# STNTRD

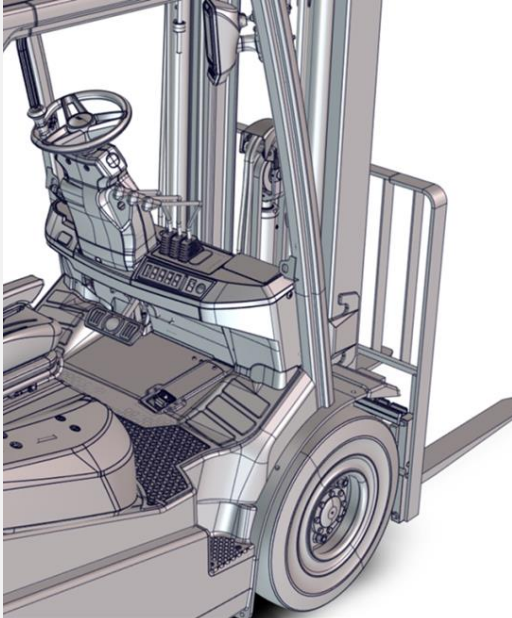
## Standard Tread Width



- **STD option or SPED**
- **STD**

### Description

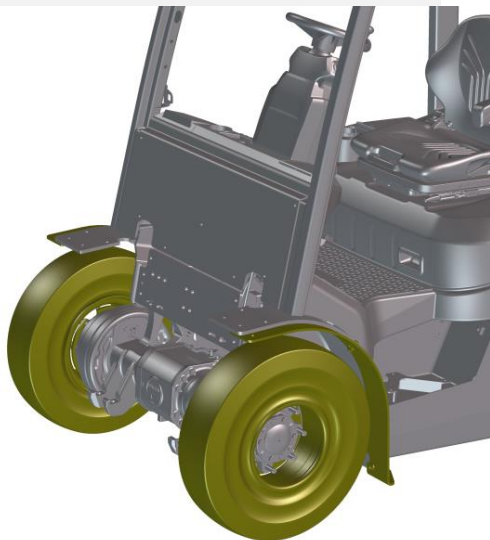
- Standard width tread tires are typically the most cost effective tire option. Standard width drive tires are designed to remain inside the profile of forklift truck frame fenders (and/or optional fender extensions and frame rub rails) meaning the drive wheel is optimally protected in standard width offering.



- **STD option or SPED**
- STD

## Description

- Wide tread tires are standard tread tires that are flipped on the axle ends. Given that the mounting web of the tire is offset, the forklift truck stance becomes wider when the tires are flipped. A forklift truck with a wider stance has increased lateral/side stability, which can be translated to higher residual lifting capacities on some trucks. It does not change the forward stability.



- **STD option or SPED**
- **STD**

## Description

- Dual tread, also called “duals”, means that each wheel end on the drive axle has two tires sandwiched together. Dual treads are only used on pneumatic style tires and come in both air pneumatic and PSS tires. Dual tread tires increase the forklift truck width, a forklift truck with a wider stance has increased lateral/side stability, which can be translated to higher residual lifting capacities on some trucks. It does not change the forward stability.
- Placing two tires on both ends of a single axle nearly doubles the weight that the axle can carry and allows three properly inflated tires (pneumatic tires only) to temporarily carry the weight originally allocated to the four tires if a tire loses pressure or goes flat. Vehicle drivability is maintained if one tire on a dual set goes flat
- Considerations for the use of dual tires are increased stress on the drive axle and the ability only to have this option with a wet brake axle.
- Only available with 2.5t at 600mm load centre, 3.0t and 3.5t trucks.



# Tyre Class - Standard

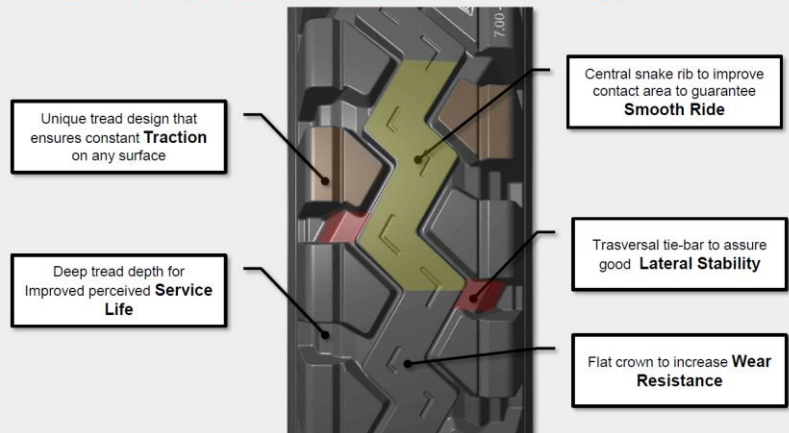
- **STD option or SPED**
- **STD**

## Description

- Suitable for low and medium intensity operations the standard tire offers a good balance between initial purchase price, functionality and running costs. This specification of tire is most effective when used on forklift trucks operating under 1200 hours per year

### Standard Resilient Tire XP 800

Special Tread design features: the perfect tire for medium intensity applications service



### XP 800 features offer lowest cost per Hour



# Tyre Class - Premium

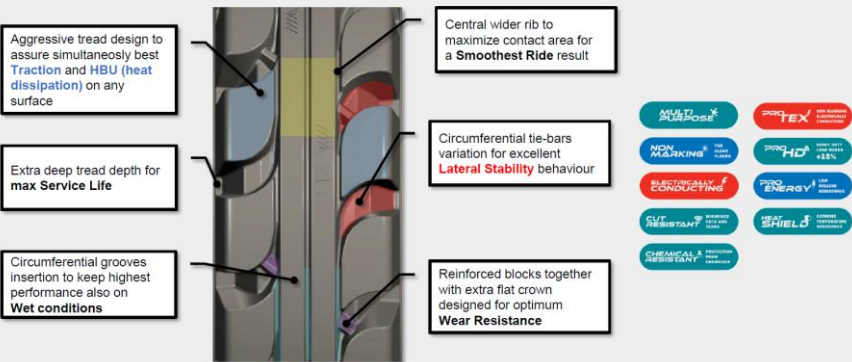
- STD option or SPED
- STD

## Description

- The premium tire option typically lasts 20% longer in a like for like application than the standard tire. This reduces downtime of the forklift truck and the overall cost of ownership when a forklift truck is used in a medium to high intensity operation. Premium tires are equipped with a pit stop line, informing the operator / service engineer when the tires need to be replaced, reducing the chance of tires being changed early (wasting money) and replacing tires too late (negatively impacting truck stability or productivity).

### Premium Resilient Tire XP 1000

The best performance under maximum application intensity



### XP 1000 features deliver keys customer's values



# Drive & Steer Tyres - Pneumatic Tyres

- **STD option or SPED**
- **STD**



## Description

- Pneumatic tires offer the best ride comfort but least stability of all the tire types so must be matched carefully to application. Due to the bias ply construction they are not suitable for applications with long, fast travelling as too much heat can build up in the tire. These tires are also susceptible to punctures and should not be used where debris is present or where there are pot holes. Tire pressure can be adjusted to meet the demands of the application surface.
- Available in Premium Tyre Class only.
- Available in Standard or Wide tread.



# Drive & Steer Tyres - Super Elastic Tyres

- **STD option or SPED**
- **STD**



## Description

- These tires look like a conventional pneumatic tire but are made from solid rubber. They offer a firmer ride but offer the best residual lifting capacity of the forklift. Being made from solid rubber they are puncture resistant and are suitable for areas where debris is present and over all surfaces. The solid rubber construction also dissipates heat so is suitable for both long and fast travels. Pneumatic Shaped Solid Tires (Super Elastic Tires) also wear more slowly than conventional pneumatic tires reducing forklift truck downtime.
- Available in Standard or Premium Tyre Class.
- Available in Standard, Wide or Dual tread.

# Drive & Steer Tyres - Non-Marking Super Elastic Tyres



- **STD option or SPED**
- **STD**

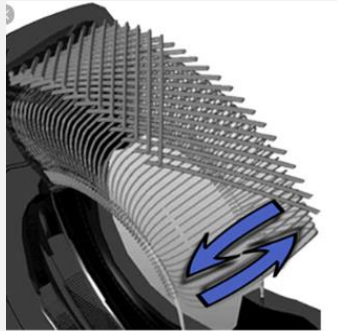


## Description

- Non-marking tires are especially suitable for indoor/warehouse applications and for use with painted floors, they do not leave dark marks behind like normal rubber tires reducing the need for floor cleaning.
- These tires look like a conventional pneumatic tire but are made from a light colored solid rubber. They offer a firmer ride but like standard Pneumatic Shaped Solid Tires offer the best residual lifting capacity of the forklift Being made from solid rubber they are puncture resistant and are suitable for areas where debris is present and over all surfaces. The solid rubber construction also dissipates heat so is suitable for both long and fast travels.
- Non-marking tires are more expensive than standard Pneumatic Shaped Solid Tires and do, on average, wear faster (up to 25%).
- Available in Premium Tyre Class only.
- Available in Standard, Wide or Dual tread.

# Drive & Steer Tyres - Pneumatic Radial Tyres

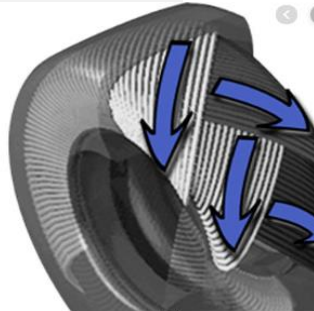
- **STD option or SPED**
- **STD**



Radial

## Description

- Pneumatic Radial Tires are similar to normal pneumatic tires but have improved puncture resistance and are more suitable for longer and faster travels due to the internal construction dissipating heat better. Lifting stability is better than a normal pneumatic tire however still less than a Pneumatic Shaped Solid tire. Due to the rigid sidewall of these tire grip at low speeds is reduced. Supplied by Michelin.
- Available in Premium Tyre Class only.
- Available in Standard or Wide tread.



Bias

- **STD option or SPED**
- **STD**

## Description

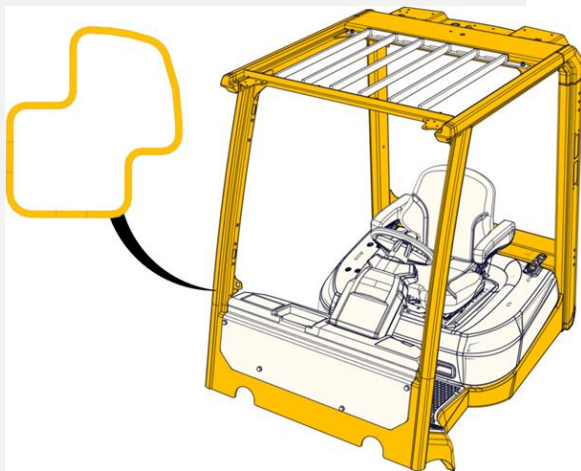
- Durable plastic extensions are added to the front fenders/ wheel arches. These help to stop spray and dirt picked up by the wheels covering the mast and cowl area. Particularly suitable for outside use or areas where dirt is present.



- **STD option or SPED**
- **STD**

## Description

- The overhead guard is constructed using figure of 8 tubing and has been shaped and laid out to maximize operator space, visibility and ease of ingress/egress. Narrow but tough tubes provide great all round visibility and ease of ingress is provided by carefully curving the “A posts” and introducing a welded overlap joint where they meet the roof.
- It is fully container ready giving flexibility to operations where forklift trucks need to go into lorries and/or containers. Height is 85” / 2160mm with 12” drive tires or 86” / 2185mm with 15” drive tires.



# OHGGRD

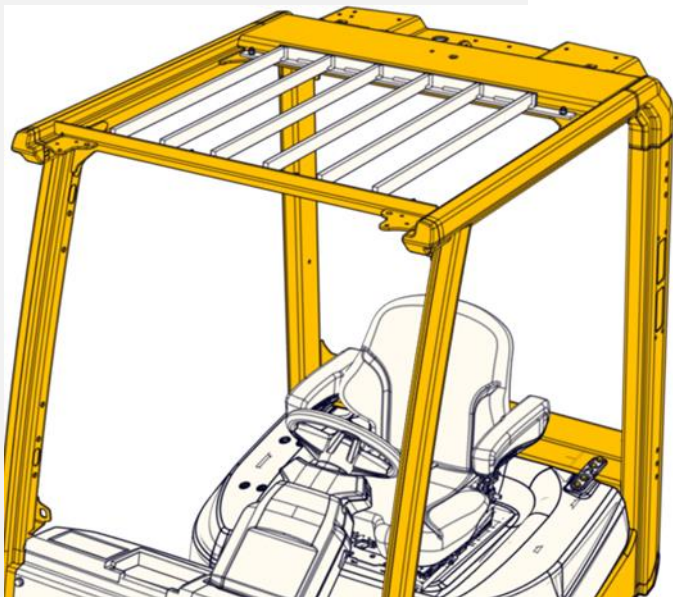
## Grid Style Overhead Guard



- **STD option or SPED**
- **STD**

### Description

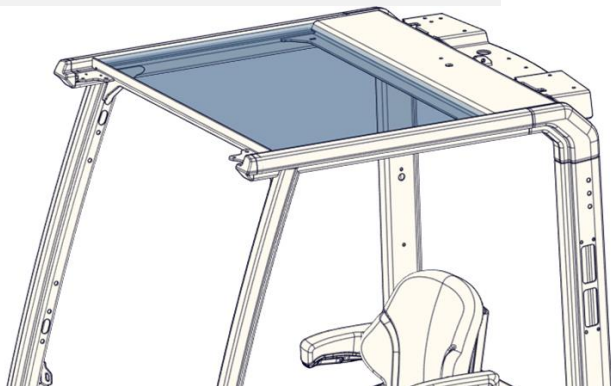
- A steel panel with interior lining sits directly above the operator's head, with the area in front of the head being constructed from high strength steel bars.



- **STD option or SPED**
- **STD**

### Description

- A steel panel with interior lining sits directly above the operator's head, with the area in front of the operators' head being constructed from a solid pane of high strength laminated glass. This overhead guard configuration with glass roof passes all relevant overhead guard tests in the same way as an all-steel overhead guard but offers a greater view of the mast, helping operators view the load when loading or un-loading at height.
- The 20mm thick glass also offers protection to the operator from smaller falling objects and rain. Should the forklift truck need to be used outside regularly, a wiper can be added to the roof screen but must also be specified with a front screen/ further cab option.



# OHGCVC

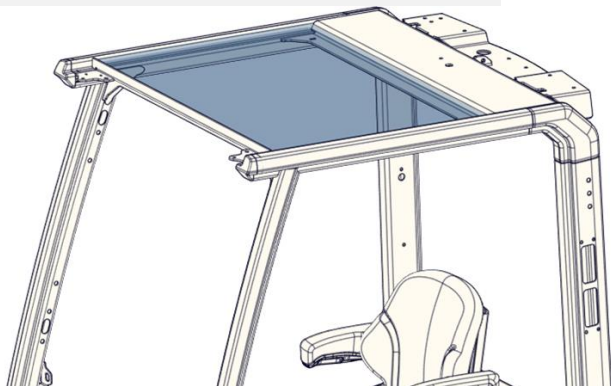
## Clear View Overhead Guard - Cab Ready



- **STD option or SPED**
- **STD**

### Description

- Being cab ready this overhead guard is pre-equipped with the harness, roof liner and essential components to allow simple retrofitting of cabin screens and doors at a later stage, offering flexibility and the ability to cost effectively change the forklift truck application by adding a cab.
- Note that in order to be able to easily retrofit a cabin in the field, the truck must be fitted with an Aftermarket ready cab kit





- **STD option or SPED**
- **STD**

## Description

- The overhead guard is constructed using rectangular tubing and has been laid out to maximize operator space, visibility and ease of ingress/egress. Narrow but tough tubes provide all round visibility and ease of ingress is provided by carefully curving the “A posts” and introducing a welded overlap joint where they meet the roof.
- A steel panel sits directly above the operator’s head, with the area in front of the operators’ head being constructed from high strength steel bars. This kind of overhead guard is best used for indoor operations and is not compatible with the cabin options except the polycarbonate rain top. It is however, fully container ready and suitable for applications where forklift trucks need to go into lorries. Height is 85” / 2160mm with 12” drive tires or 86” / 2185mm with 15” drive tires.



# OHG82R

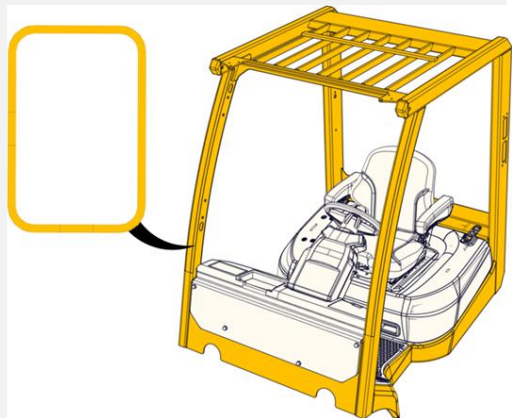
## 2095mm Rectangular Tube - Low



- **STD option or SPED**
- **STD**

### Description

- The overhead guard is constructed using rectangular tubing and has been laid out to maximize operator space, visibility and ease of ingress/egress. Narrow but tough tubes provide all round visibility and ease of ingress is provided by carefully curving the "A posts" and introducing a welded overlap joint where they meet the roof.
- Tube lengths have been shortened compared with the High version and a flat steel panel sits directly above the operator's head. The area in front of the operators' head remains constructed from high strength steel bars. This kind of overhead guard is best used for indoor operations and is not compatible with the cabin options except the polycarbonate rain top.. Height is 82" / 2095mm with 12" drive tires or 83" / 2120mm with 15" drive tires.



- **STD option or SPED**
- **STD**



### Description

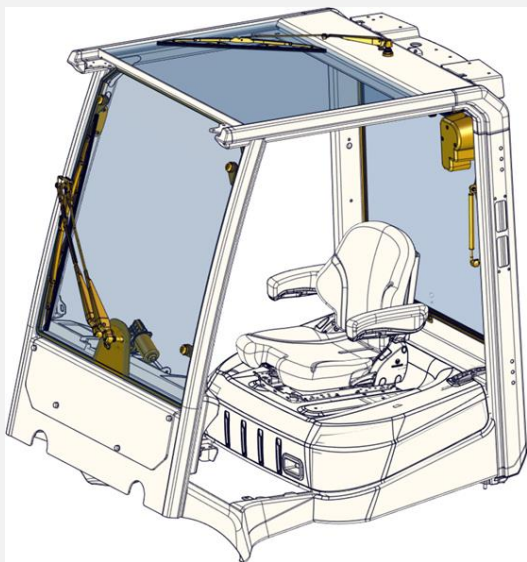
- This option adds a toughened glass front screen and front and top wipers to the Clear View / glass operator compartment option. The standard roof liner is replaced with a cabin specific liner and is ready to take further cab options like the reading light/ Radio preparation kit. It also includes the additional parts (cab ready) to allow an easy upgrade to higher cabin specification at a later date.
- The top wiper increases overall truck height by 60mm and can be specified as “without” by de-selecting top wiper. This option is ideal for forklift trucks working indoors and occasionally outside but not needing a full cabin because of weather conditions or the operator’s weatherproof clothing.

# GTFRTS

## Glass Top, Front and Rear Screen



- **STD option or SPED**
- **STD**



### Description

- This option adds a toughened glass front screen, rear screen and front, rear and top wipers to the Clear View / glass operator compartment options. The rear screen is hinged at the top allowing it to be opened for service access to the engine compartment or to allow more air to circulate in the cabin.
- The standard roof liner is replaced with a cabin specific liner and is ready to take further cab options like the reading light/ Radio preparation kit. It also includes the additional parts (cab ready) to allow an easy upgrade to higher cabin specification at a later date.
- The top wiper increases overall truck height by 60mm and can be specified as “with” by selecting the top wiper option. This option is ideal for forklift trucks working regularly in and outside but not needing a full cabin because of weather conditions or the operator’s weatherproof clothing.

# GTFRPV

## Glass Top, Front and Rear Top Screen with PVC Doors



- **STD option or SPED**
- **STD**



### Description

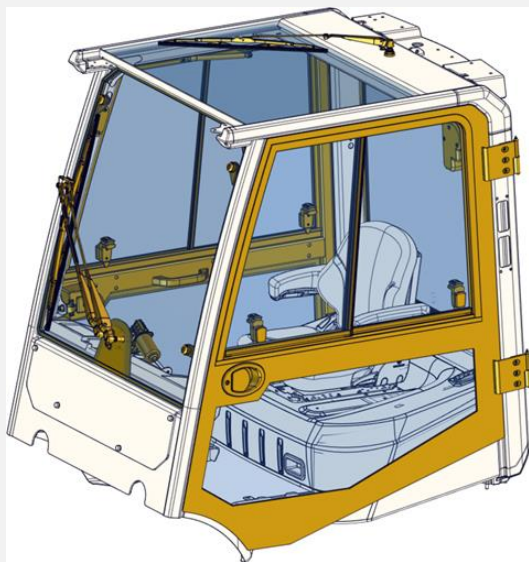
- This option adds flexible PVC doors together with toughened glass front and rear screens and wipers to the Clear View / glass operator compartment options.
- PVC doors offer a low cost solution to make the cabin weather tight and can be rolled up out of the way during good weather giving easy access to the operator compartment.
- The standard roof liner is replaced with a cabin specific liner and is ready to take further cab options like the reading light/ Radio preparation kit. It also includes the additional parts (cab ready) to allow an easy upgrade to higher cabin specification at a later date. The rear screen is hinged at the top allowing it to be opened for service access to the engine compartment or to allow more air to circulate in the cabin.
- The top wiper increases overall truck height by 60mm and can be specified as “without” by de-selecting top wiper. This option is ideal for forklift trucks working regularly outside especially where less rain is less regular or cold temperatures are less of a consideration.

# GTFRSD

## Glass Top, Front and Rear Top Screen with Steel Doors



- **STD option or SPED**
- **STD**



### Description

- This option provides a full weather proof cabin, including front, top and rear screens as well as wipers and Steel side doors. The Steel doors as well as all of the screens sit inside of the profile created by the overhead guard tubing ensuring the cabin is protected from accidental damage.
- Both doors have internal and external lockable handles that are easy to use with or without gloves and gas struts and pressure relief valves to provide smooth opening and closing of the doors. Doors include steel tubes ready to mount optional equipment via “RAM” mounts as well as sliding top windows. Offering good visibility, they are removable for customers who prefer not to use doors in good weather.
- The top wiper increases overall truck height by 60mm and can be specified as “without” by de-selecting option 10/ top wiper. This option is ideal for forklift trucks working regularly or exclusively outside.
- The rear screen is hinged at the top allowing it to be opened for service access to the engine compartment or to allow more air to circulate in the cabin.
- As the cabin has doors, CE requires inclusion of a way to de-mist the cabin. Heating, air conditioning or heated screens must be selected to meet the regulations.

# AC0063

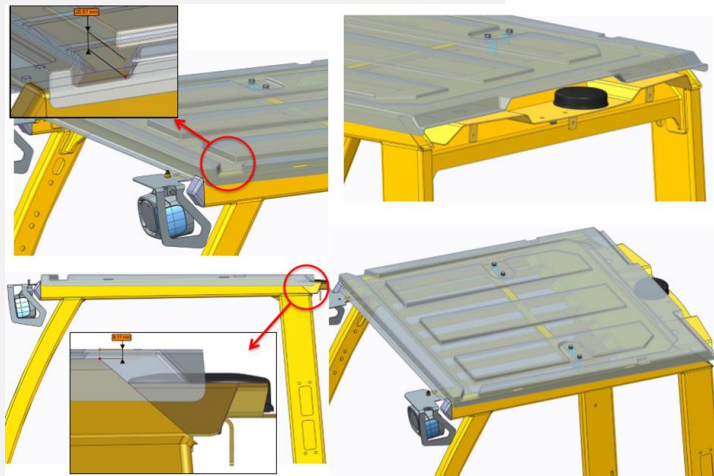
## Polycarbonate Rain Top for Overhead Guard



- **STD option or SPED**
- **STD**

### Description

- This option is a molded clear plastic cover for rectangular overhead guards. Fixed on to the guard with straps the rain top can be easily removed or replaced as required. Its design stops water pooling above the operator and has drainage gutters to minimize water falling on to the operator when driving.





# HISPCB

# High Specification Cab



- **STD option or SPED**
- **STD**



## Description

- This option provides a further enhancement to the full cabin option which minimizes the visibility of the bare metal surfaces on the overhead guard and hood. This gives the cabin a more automotive feel and appearance with enhancing the feel or quality in the cabin.
- The addition of the covers will reduce noise level at the drivers' ear within the cabin.
- The options introduces the following new parts:
  - Moulded fabric hood cover
  - Fabric rear lower cross member cover
  - Moulded plastic covers to the front and rear posts
  - Moulded plastic covers to left and right top overhead guard bars.
- The following options are also required when selecting the High Specification Cab:
  - Sun Shade Front Roller - SSFROL
  - Dual Mirrors Side View - MIRDRV
  - Console Tray - CONSTR
  - Rear Drive Handle with Horn Button - HNDLRD





# AIRCON

## Air Conditioning



- **STD option or SPED**
- **STD**

### Description

- This option can only be selected with a full cabin with Steel doors. It provides the operator with the ability to heat or cool the cabin on demand. The option adds a condenser / air distribution system to the right hand side of the operator compartment floor and an evaporator to the rear of the overhead guard.
- The careful positioning of the components means the height of the forklift truck has not been increased meaning this option can be used for forklift trucks entering containers. All additional pipe work and cables have been neatly hidden behind other components meaning no compromises to normal operational visibility.



- **STD option or SPED**
- **STD**

## Description

- This option provides a heater and de-mist function to cabins. The heater and air distribution system is located to the right hand side of the operator compartment floor and will provide a temperature rise of 30°C in 20 minutes and screen de-mist in approximately 5 minutes.
- While designed for cabins with doors (Steel or PVC) and can be ordered without a cabin if a cabin is going to be fitted later. The heater however is not IP rated in the same way as the rest of the electrical system of the forklift truck and is not suitable for jet washing and should be protected from rain.



- STD option or SPED
- STD

## Description

- This option adds a top wiper to the forklift truck and is suggested for any forklift truck with a glass roof screen and being used outside. It increases the forklift truck height by 53mm.

OHG Option	2.0t/2.5t – 12" tires		3.0t/3.5t – 15" tires		Height with Top wiper fitted (+53mm)	
	mm	inch	mm	inch	mm	inch
Figure 8 isolated	2175	86"	2200	87"	2228/2253	88"/89"
Figure 8	2160	85"	2185	86"	2213/2238	87"/88"



# DISLWD

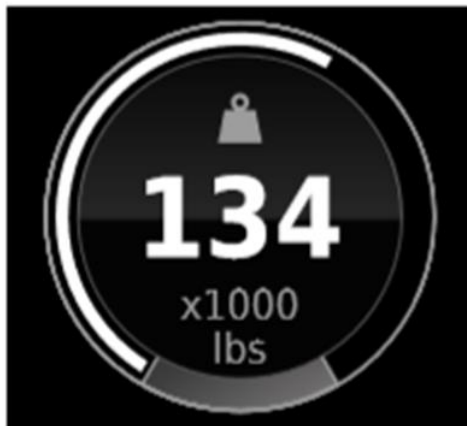
## Load Weight Display



- **STD option or SPED**
- **STD**

### Description

- This option measures the load on the forks by checking the hydraulic pressure inside the mast supply line. The main full color display will then display the load to a tolerance of  $\pm 25$  kg.
- Accurate readings require hydraulic oil temperature to be 15-50°C. So consideration should be made to the environment this option will be used in. Due to the accuracy level, this option does not meet Legal for Trade requirements.



# HNDLRD

## Rear Drive Handle with Horn Button



- **STD option or SPED**
- **STD**

### Description

- This option provides a handle for the operator to hold while driving in reverse. The handle is located on the right, rear overhead guard leg and reduces strain on the operator's back when driving in reverse. The addition of the horn button allows an operator to use the horn while reverse driving without having to remove their hands from the steering wheel.



- **STD option or SPED**
- **STD**

### Description

- Dual side mirrors are located on the front overhead guard legs and provide a view for the operator along the sides of the forklift truck, to support operators in specific applications, where the customer determines that additional visual support may be needed. The side view mirrors are not a substitute for the operator looking the direction of travel at all times. Mirrors are a scratch resistant glass and can be adjusted to suit user preferences.



# MIRPAN

## Panoramic Mirror



- **STD option or SPED**
- **STD**

### Description

- The panoramic mirror is a single mirror located on the front, top part of the overhead guard. This mirror provides a wide view to the rear and sides of the operator providing a way for operators to see the environment around the forklift truck during truck maneuvering, to support operators in specific applications where the customer determines that additional visual support may be needed. The panoramic mirror is not a substitute for the operator looking the direction of travel at all times.



# FANOPR

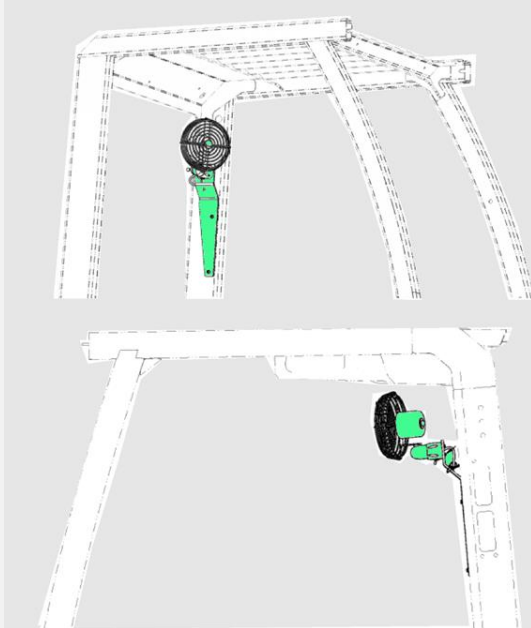
## Operator Fan



- **STD option or SPED**
- **STD**

### Description

- This option adds a 197mm (8") fan to the right rear overhead guard leg. The fan is designed to circulate air around the cabin and provide a breeze for forklift trucks used in hot environments. The fan has a HI and LOW speed setting and can be adjusted 120 degrees to operator preference.





- **STD option or SPED**
- **STD**

## Description

- This option adds a roller blind style sun shade to the top screen of a cabin or cab ready operator compartment. The roller is positioned at the front of the top screen and then pulled towards the rear of the roof to operate.

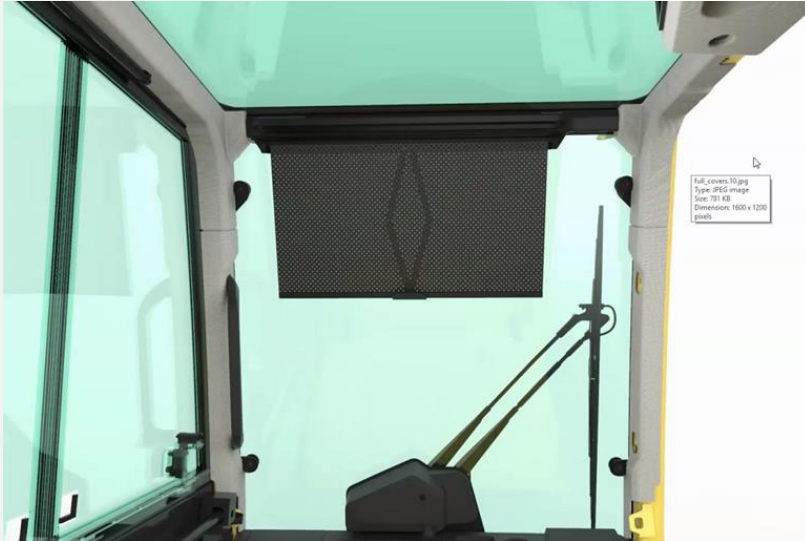


Image of Sun Shade Front Roller – Top Roller works the same way but to the top screen

- **STD option or SPED**
- **STD**

## Description

- This option adds a roller blind style sun shade to the front screen of a cabin or cab ready operator compartment. The roller is positioned at the top of the front screen and then pulled downwards to operate



# VOL12A

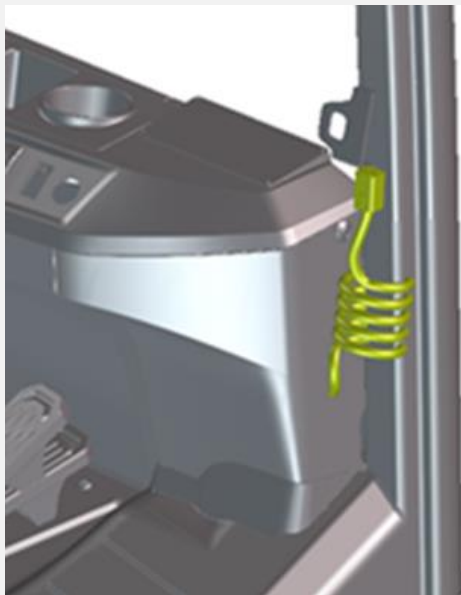
## 12 Volt Auxiliary Supply



- **STD option or SPED**
- **STD**

### Description

- This option adds a single flying lead to connect third party electrical devices to the forklift truck power supply. The truck supply is 12v and is fused to 15A. The lead is positioned underneath and on the right-hand side of the dash.



## 12 Volt Power Supply with 2 USB Charging Ports

- **STD option or SPED**
- **STD**

### Description

- This option adds a twin USB charging port and a 12v DC power socket (cigarette lighter-style) to the dash of the forklift truck. The USB charging port circuit is rated to 3.15A and the 12v DC power socket to 15A. A USB port will charge a typical smart phone in 1-2hrs depending on model and is IP65 rated.



# AC0048

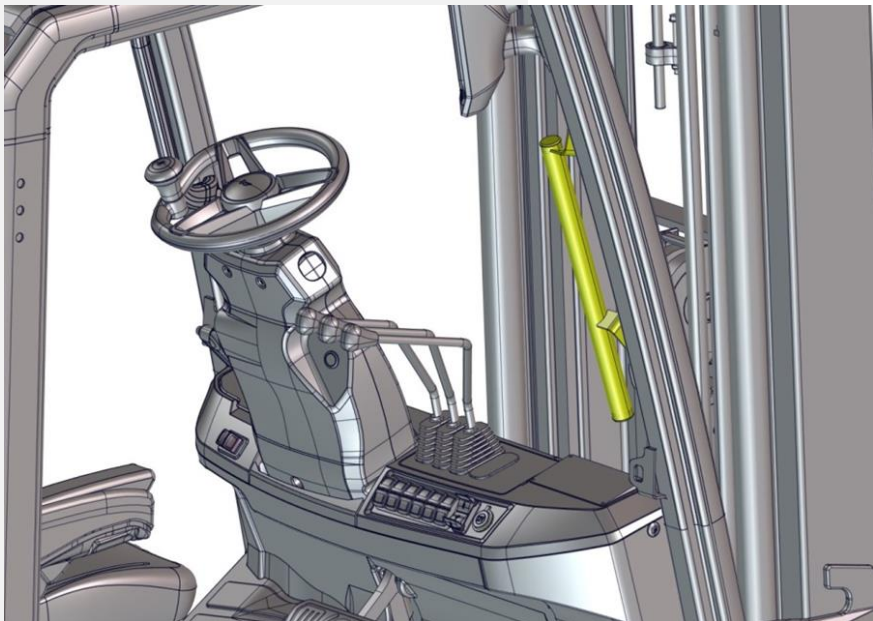
## Accessory Mounting Post



- **STD option or SPED**
- **STD**

### Description

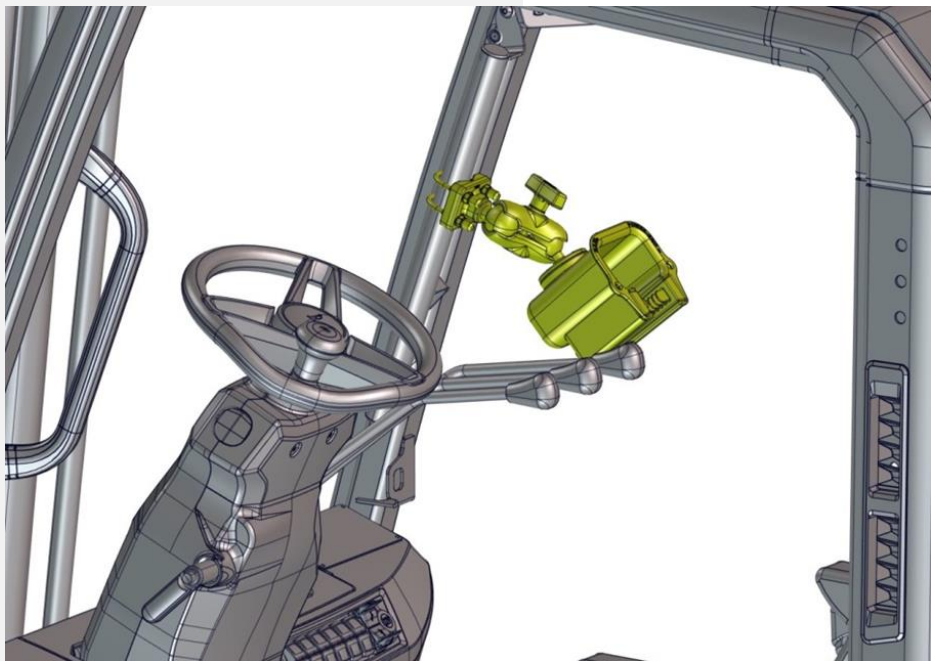
- Provides a sturdy location to mount various customer accessories to the truck right hand A-pillar, underneath the operator display.



- **STD option or SPED**
- **STD**

## Description

- This option provides a standard RF scanner holder within easy reach of the operator.



- **STD option or SPED**
- **STD**

## Description

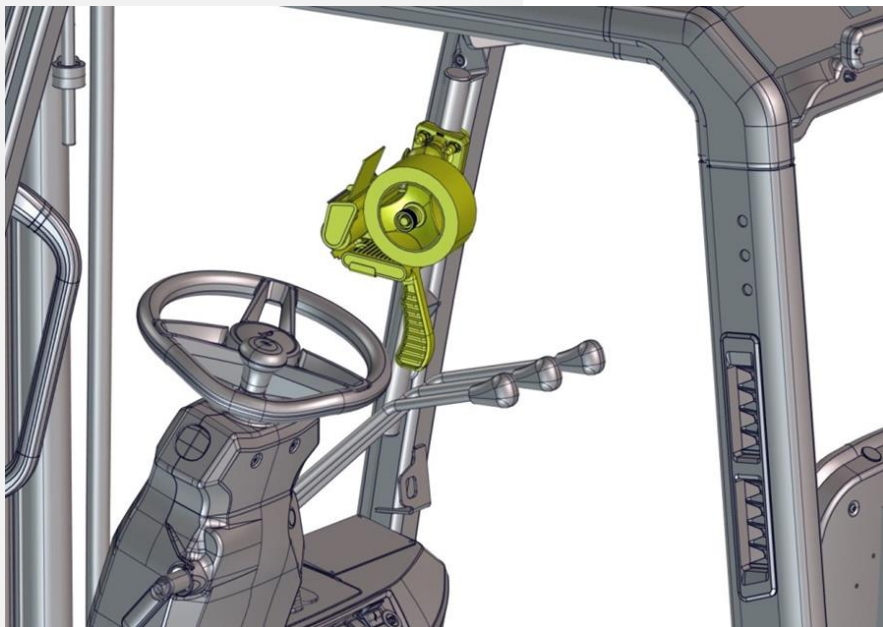
- Provides an additional cup holder location for operator to store water bottles. The cup holder option can be used in addition to the optional convenience tray with integral cup holder on manual hydraulic lever trucks or the standard cup holder in the dash on trucks fitted with Mini Levers or Joysticks.
- The cup holder can hold cups of diameter 55mm to 95mm.



- **STD option or SPED**
- **STD**

### Description

- Custom bracket for holding a standard packaging tape roller gun. The magnetic bracket offers easy attachment and detachment of the tape roller.

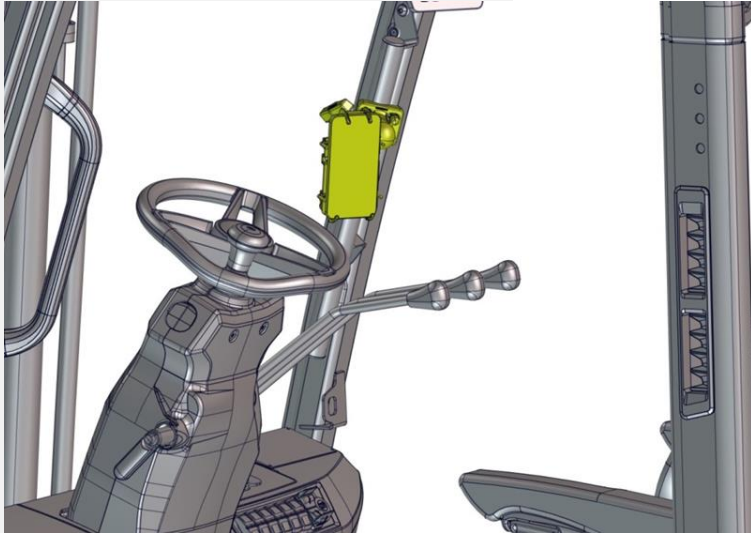




- **STD option or SPED**
- **STD**

### Description

- The universal mobile device holder secures typical mobile devices in place.
- If paired with 12V Power Supply with 2 USB Charging Ports Option, will charge mobile devices in place on the holder.



# TABHLD

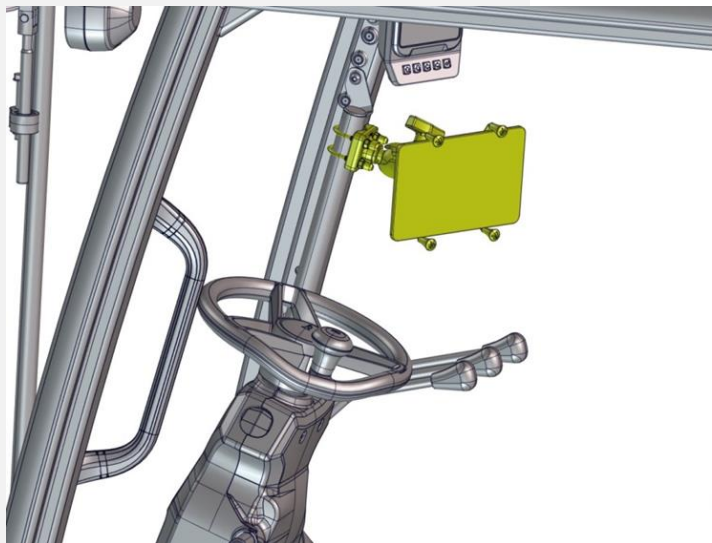
## Tablet Holder



- **STD option or SPED**
- **STD**

### Description

- The universal tablet holder secures typical tablets in place within easy distance of the operator.
- If paired with 12V Power Supply with 2 USB Charging Ports Option, operators can charge their tablet in place on the holder.



# SWOACA

## Swing Out Accessory Arm



- **STD option or SPED**
- **STD**

### Description

- The Swing out Accessory Arm option adds a tubular frame to the right-hand side of the forklift truck for attachment of Accessory mounting options. The arm gives more space for options and moves them to the right-hand side increasing forward visibility even when many optional items are fitted.
- The Arm pivots from the rear allowing easy access for servicing even with many options fitted.



# MONMOT

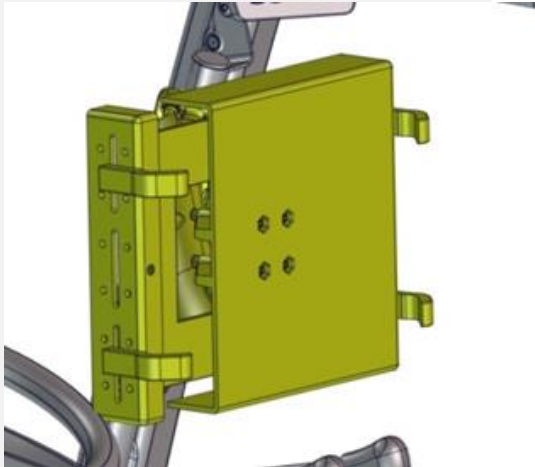
# Monitor Mount



- **STD option or SPED**
- **STD**

## Description

- The monitor mount provides a universal mount for laptops, radio data terminals, information screens/monitors and other larger electronic items. The monitor mount is only compatible with the swing out accessory arm



- **STD option or SPED**
- **STD**

### Description

- The shrink wrap holder provides a mount for shrink wrap via a vertically orientated tube, allowing a roll of shrink wrap to be held securely on the truck. The shrink wrap holder is only compatible with the swing out accessory arm

- **STD option or SPED**
- **STD**

### Description

- The convenience tray option adds an additional level of storage and organization for the operator in a seated position.
- Trays provide a document clip, pen/pencil recess, and flat surface for writing as well as a cup holder / round storage compartment at the front



# AC0064

## Reading light



- **STD option or SPED**
- **STD**

### Description

- This option adds an interior reading light to any cab or cab ready operator compartments. The reading light produces a focused light onto the operator's lap allowing documents to be read in low light conditions. The light is turned on/off by a switch on the headliner.

Truck turned off



Truck turned on – light off



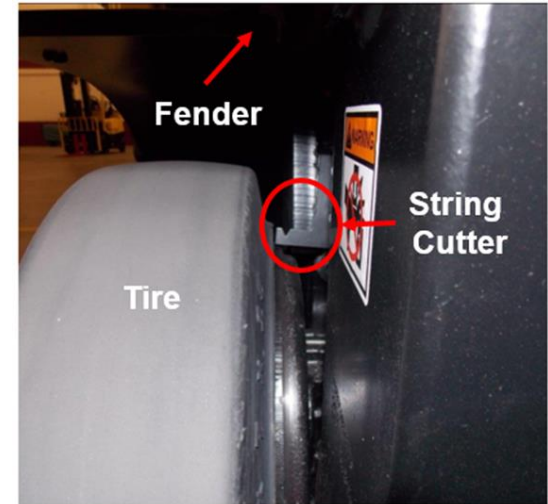
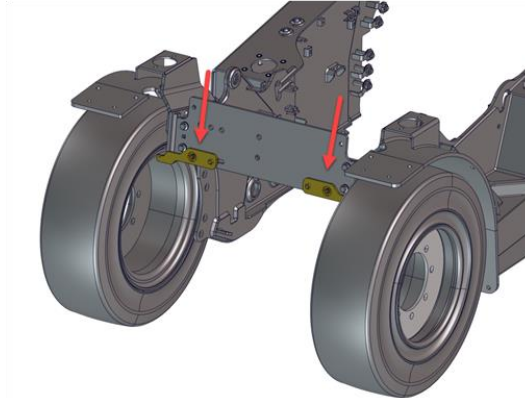
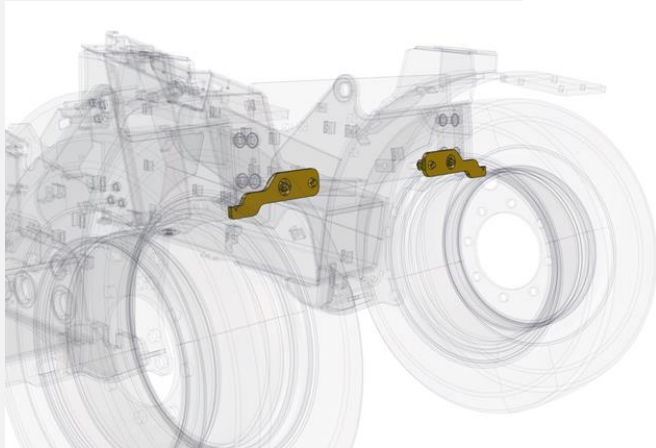
Truck turned on – light on



- **STD option or SPED**
- **STD**

## Description

- The string cutter option adds a feature to the frame that will catch string, wire or other types of banding before winding tightly around the axle and brake hub. This feature may not cut the material, but it will assist in providing easy access to cut and remove wound material before it can cause damage

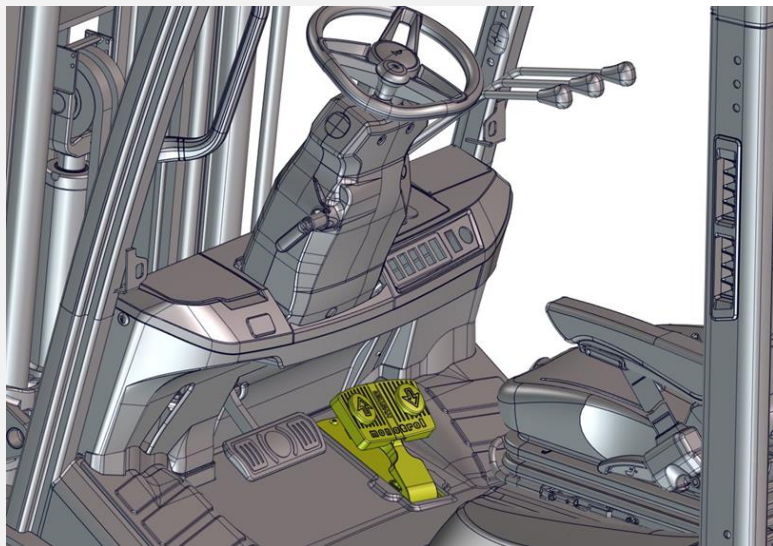




- **STD option or SPED**
- **STD**

## Description

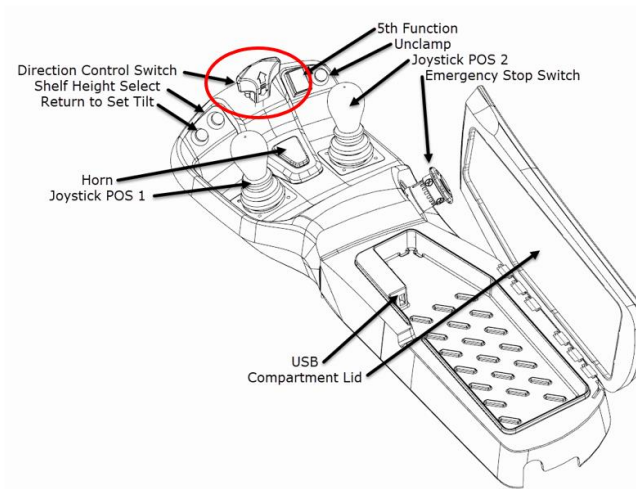
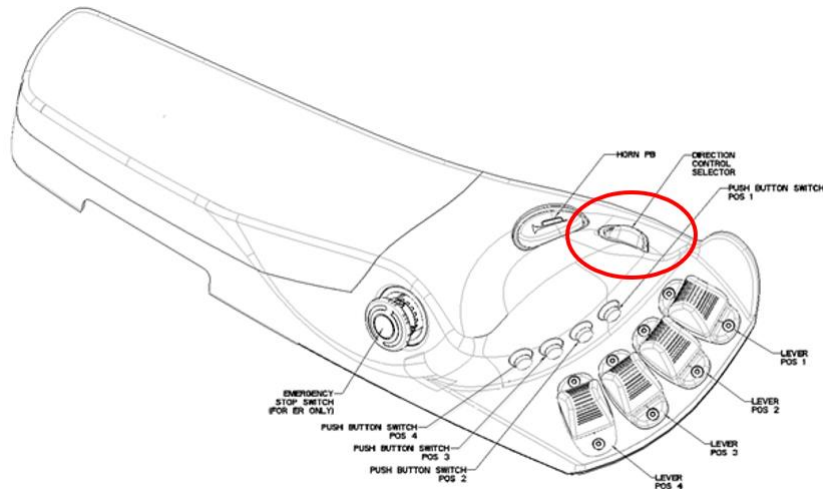
- This option continues the current production Foot Direction control pedals. It provides simple, swift, smooth, and simultaneous control of travel speed and direction, leaving the operator's hands free for steering and operating hydraulic levers, improving operator efficiency and productivity.



- **STD option or SPED**
- **STD**

## Description

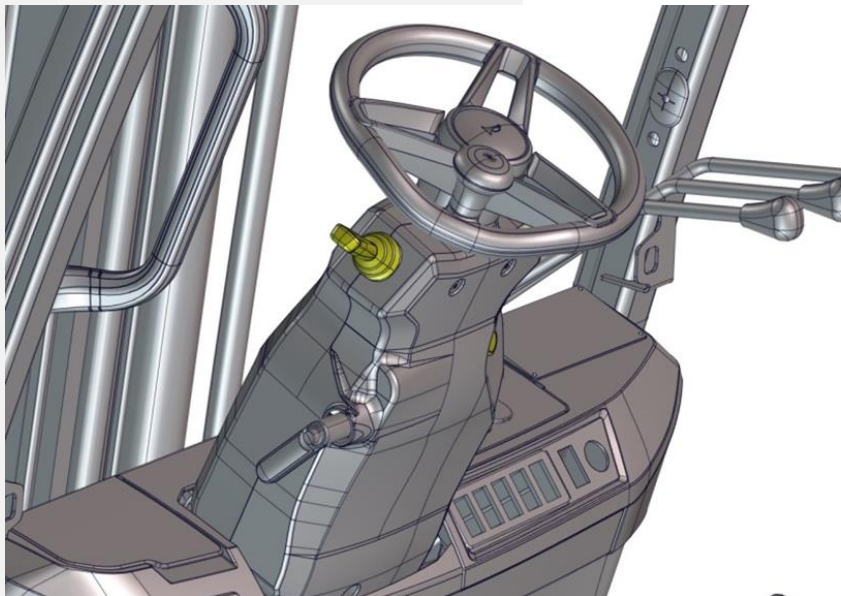
- For trucks equipped with mini-lever hydraulic control, this option places a forward/reverse switch near the operator's thumb. This design is identical to current production trucks.
- For trucks equipped with dual joystick hydraulic control, this option is a Forward, Neutral and Reverse lever placed forward of the joysticks. .



- **STD option or SPED**
- **STD**

## Description

- This option is a steering column mounted lever similar to the design that was fitted to VX and MX. It has 3 distinct positions, Forward, neutral and reverse and is normally activated by the operators left-hand.



# SCWOTC

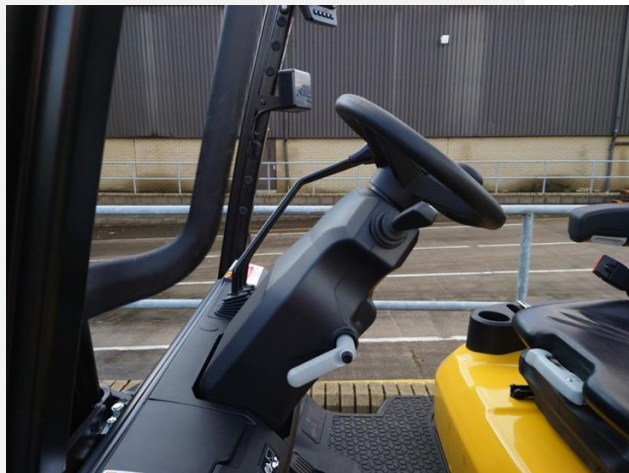
## Steer Column with Infinitely Adjustable Tilt



- **STD option or SPED**
- **STD**

### Description

- The Tilt steering column comes as standard for all forklift trucks. The column features 32° of tilt range and is adjusted by a strong and easy to use rotary handle on the right hand side of the steering column.
- Designed using automotive grade ergonomic software, the column is designed for the broadest range of operators.



## Telescopic and Tilt Steering Column



- **STD option or SPED**
- **STD**

### Description

- The Telescopic Steering Column's angle adjustment (32° of tilt range) is activated by a one touch handle and gas spring. This allows for effortless adjustment by operators and one-handed lifting of the column, which is great when standing beside the forklift truck for daily checks or for service. Featuring 66mm of telescoping adjustment, operators can easily tailor the steering wheel position to their specific needs—nice and close for long periods of low-effort driving, or completely collapsed for the easiest way to get on and off the truck.

# SWWISK

## Steering Wheel with Spinner Knob



- **STD option or SPED**
- **STD**

### Description

- 300mm (11.8 in.) diameter steering wheel with a spinner knob. Allowing an operator to maintain a hand on the spinner knob throughout the whole travel of the steering wheel in either direction. Ideal for trucks that carry out a lot of direction changes.



- **STD option or SPED**
- STD

### Description

- The On-demand steering system is standard for all models and shares the main hydraulic pump flow with all other working functions. The design allows the steering system to always have the flow required when steering is demanded, ahead of all other hydraulic functions.

# On Demand Power Steering with Synchronous Steering

- **STD option or SPED**
- STD

## Description

- The On-demand Power Steering with Synchronous Steering option enhances operator comfort and ergonomics. It maintains a consistent steering wheel position when the operator is driving straight ahead reducing potential arm and back fatigue.



## Standard Display: 127mm Colour Touchscreen

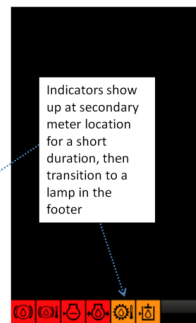
- STD option or SPED
- STD

### Description

- Portrait oriented color touch screen display with 5-button key pad, provides all basic functionality needed for the forklift truck including hour meter, clock, fuel status and warning symbols, as well as the advanced functionality required for certain options. The generous size allows for clear communication with the operator. The standard menu system provides fast and easy navigation for both operators and service engineer.



Status panel- used to communicate truck information. Clock centered, various icons shown at both end of the panel



Indicators show up at secondary meter location for a short duration, then transition to a lamp in the footer

Footer shows faults and alarms (overrides hour meter space claim as needed)

# D7CTSD

## Premium Display: 178mm Colour Touchscreen



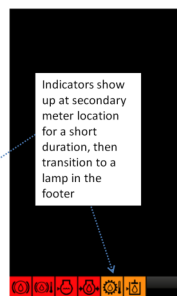
- STD option or SPED
- STD

### Description

- Portrait oriented color touch screen display with 5-button key pad, provides all basic functionality needed for the forklift truck including hour meter, clock, fuel status and warning symbols, as well as the advanced functionality required for certain options. The generous size allows for clear communication with the operator and good video quality for features like the reverse camera. The standard menu system provides fast and easy navigation for both operators and service engineer.



Status panel- used to communicate truck information. Clock centered, various icons shown at both end of the panel



Indicators show up at secondary meter location for a short duration, then transition to a lamp in the footer

Footer shows faults and alarms (overrides hour meter space claim as needed)

# DISP71

## 71mm Color Touchscreen Display



- **STD option or SPED**
- **STD**

### Description

- Landscape oriented color touch screen display with 5-button key pad, provides all basic functionality needed for the forklift truck including hour meter, clock, fuel status and warning symbols. The standard menu system provides fast and easy navigation for both operators and service engineer.



# RVCS7C

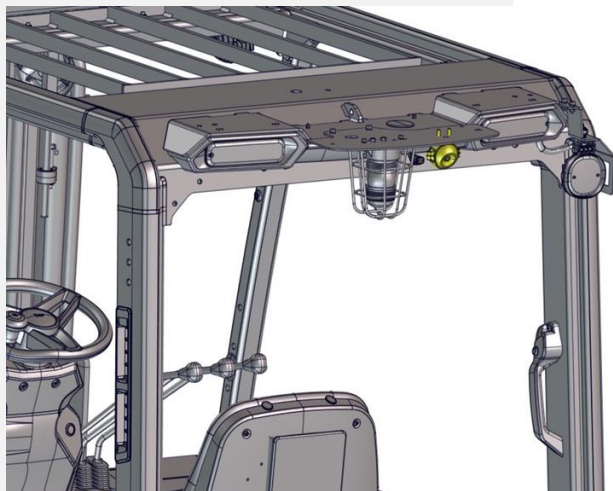
## Rear View Camera System Integrated in Digital 178mm Color Display



- **STD option or SPED**
- **STD**

### Description

- This option provides an IP67 rated video camera to the overhead guard to view the area directly behind the forklift truck. The video image is displayed on the forklift truck's color display mounted on the front A-post of the truck and is automatically switched on when travelling in reverse. This option is designed to support the operator during truck maneuvering, and is not a substitute for the operator looking in the direction of travel at all times.



# FMSG65

## Full Suspension Vinyl Seat



- **STD option or SPED**
- **STD**

### Description

- Series N tucks Full suspension Premium seat supplier is the German manufacturer Grammer. Seats have 80mm of vertical travel with robust mechanical mechanism and easy adjustment via a handle on the front of the seat. Suitable for operators between 40-170Kg (90-375lbs). The seats have adjustable backrests and durable cushions. Vinyl seats are waterproof and have drainage grooves, they are recommended for tucks that do not have a cab and maybe used outdoors. They are also the most suitable for indoor use if the environment is dirty or dusty. The seat can be moved forwards and back by 200mm. Fitted with flip-up armrests. Lower armrests before operating to provide additional support to the operator in the event of a lateral tip-over.



# FSVS10

## Full Suspension Vinyl Seat - Value



- **STD option or SPED**
- **STD**

### Description

- Economical full-suspension seat to meet CE requirements for regulated European markets. Offering 80mm of vertical suspension, the seat is suitable for operators between 50-125Kg (110-275lbs) and includes an adjustable backrest. Vinyl seats are waterproof and have drainage grooves, they are recommended for trucks that do not have a cab and maybe used outdoors. They are also the most suitable for indoor use if the environment is dirty or dusty. The seat can be moved forwards and back by 200mm. Fitted with flip-up armrests. Lower armrests before operating to provide additional support to the operator in the event of a lateral tip-over.



- **STD option or SPED**
- **STD**

### Description

- Series N tucks Full suspension Premium seat supplier is the German manufacturer Grammer. Seats have 80mm of vertical travel with robust mechanical mechanism and easy adjustment via a handle on the front of the seat. Suitable for operators between 40-170Kg (90-375lbs). The seats have adjustable backrests and durable cushions. Cloth seats are recommended for use in cabins and forklift trucks in clean environments. The cloth seat is more durable than a vinyl seat and offers the operator improved temperature regulation, reducing operators getting sweaty legs. The seat can be moved forwards and back by 200mm. Fitted with flip-up armrests. Lower armrests before operating to provide additional support to the operator in the event of a lateral tip-over.

# Air Ride Full Suspension Vinyl Seat

- **STD option or SPED**
- **STD**

## Description

- Air Ride version of the premium seat is supplied by Grammer. Air ride seats are based on the full suspension seat platform but with the mechanical suspension unit being replaced with a compressed air bladder that provides improved damping of shock and vibration. Lumber adjustment is also included, offering enhanced comfort for operators who spend prolonged period in the seat. This seat type is suggested for forklift trucks operating on rough or bumpy ground.
- Suitable for operators between 40-170Kg (90-375lbs) the seats have adjustable backrests and durable cushions. Vinyl seats are waterproof and have drainage grooves and are recommended for tucks that do not have a cab and maybe used outdoors. They are also the most suitable for indoor use if the environment is dirty or dusty. The seat can be moved forwards and back by 200mm. Fitted with flip-up armrests. Lower armrests before operating to provide additional support to the operator in the event of a lateral tip-over.



# Air Ride Full Suspension Cloth Seat

- **STD option or SPED**
- **STD**

## Description

- Air Ride version of the premium seat is supplied by Grammer. Air ride seats are based on the full suspension seat platform but with the mechanical suspension unit being replaced with a compressed air bladder that provides improved damping of shock and vibration. Lumber adjustment is also included, offering enhanced comfort for operators who spend prolonged period in the seat. This seat type is suggested for forklift trucks operating on rough or bumpy ground.
- Suitable for operators between 40-170Kg (90-375lbs) the seats have adjustable backrests and durable cushions. Cloth seats are recommended for use in cabins and forklift trucks in clean environments. The cloth seat is more durable than a vinyl seat and offers the operator improved temperature regulation, reducing operators getting sweaty legs. The seat can be moved forwards and back by 200mm. Fitted with flip-up armrests. Lower armrests before operating to provide additional support to the operator in the event of a lateral tip-over.

# Full Suspension Vinyl Seat – Low Profile

- **STD option or SPED**
- STD

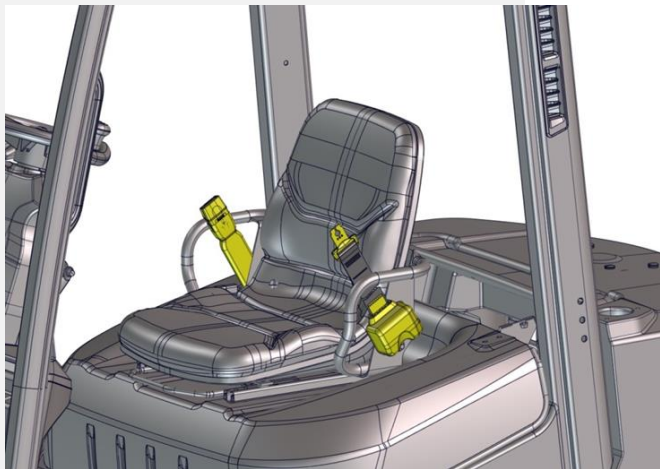
## Description

- Semi-suspension seats are a reduced-travel version of the Grammer full suspension seat. Suspension is reduced from 80mm to 40mm of vertical travel and offers operators an additional 20mm / 1" of headroom retaining the shock-absorption and comfort of a full-suspension seat. Suitable for operators between 40-170Kg (90-375lbs) the seats have adjustable backrests and durable cushions. Vinyl seats are waterproof and have drainage grooves, they are recommended for tucks that do not have a cab and maybe used outdoors. They are also the most suitable for indoor use if the environment is dirty or dusty. The seat can be moved forwards and back by 200mm. Fitted with flip-up armrests.

- **STD option or SPED**
- **STD**

### Description

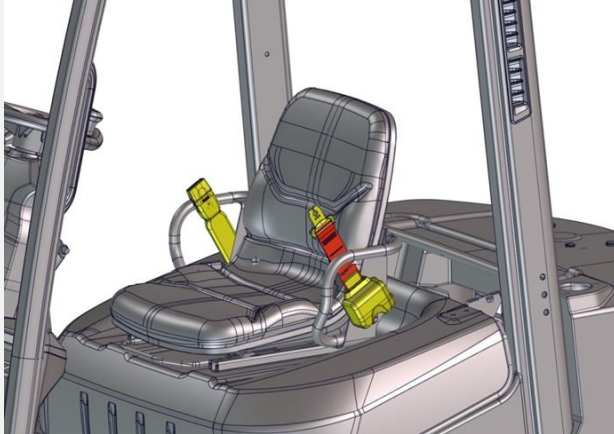
- Automotive style black seatbelt for operators. A key component of the forklift truck's standard operator restraint system, a latched seat belt keeps operators seated and inside the confines of the operator compartment during tipping events (lateral and forward), as well as minimizing the potential for impact of the operator with the steering column, overhead guard and cabin glass in the event of a forward impact, helping minimize the potential for injury



- **STD option or SPED**
- **STD**

### Description

- Automotive style seatbelt for operators. A key component of the forklift truck's standard operator restraint system, a latched seat belt keeps operators seated and inside the confines of the operator compartment during tipping events (lateral and forward), as well as minimizing the potential for impact of the operator with the steering column, overhead guard and cabin glass in the event of a forward impact, helping minimize the potential for injury. The red color of the belt makes it highly visible from a distance allowing supervisors to more easily see if the operator is using the belt correctly.

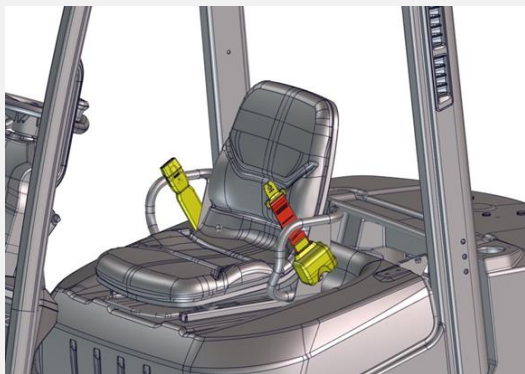


# Hi Vis Red Seat Belt with interlock

- **STD option or SPED**
- **STD**

## Description

- Automotive style seatbelt for operators. A key component of the forklift truck's standard operator restraint system, a latched seat belt keeps operators seated and inside the confines of the operator compartment during tipping events (lateral and forward), as well as minimizing the potential for impact of the operator with the steering column, overhead guard and cabin glass in the event of a forward impact, helping minimize the potential for injury. The red color of the belt makes it highly visible from a distance allowing supervisors to see if the operator is using the belt correctly.
- The interlocking feature encourages operator use of the seat belt by restricting forklift truck operation if it is not used. For Australian markets, this includes the sequential interlocking feature required by the applicable standard.



# HOOD99

## Hood



- **STD option or SPED**
- **STD**

### Description

- Standard fit hood for the truck



# HOODVE

# Vented Hood



- **STD option or SPED**
- **STD**

## Description

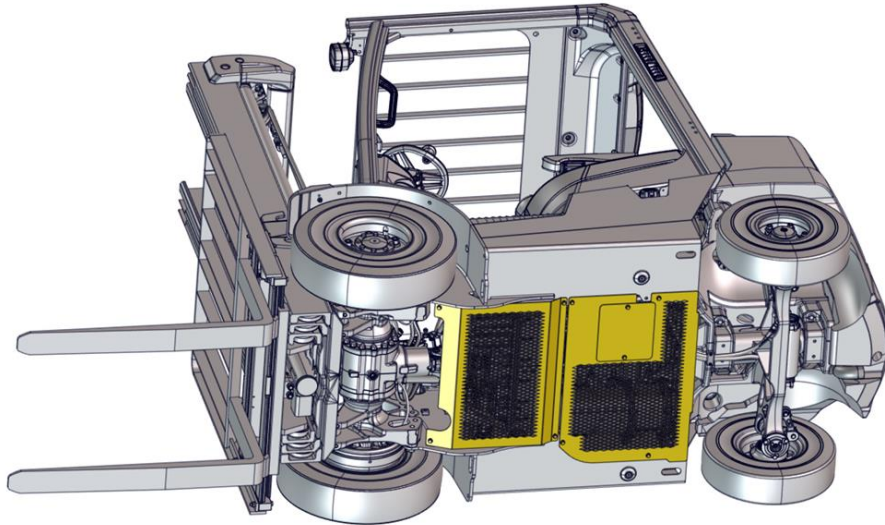
- Additional vents are added to the sides of the engine hood to aid cooling in hot environments and applications. This option does raise noise levels.



- **STD option or SPED**
- **STD**

## Description

- This option adds a tough and durable steel mesh screen to the underside of the engine compartment to protect the engine from debris which may cause damage to the engine components. The Belly Screen option helps to provide durability in debris-filled applications while allowing air to pass through for engine cooling.





# TIEDNS

# Tie Downs



- **STD option or SPED**
- **STD**

## Description

- The Tie Down option adds substantial steel lifting/ tie down rings to the chassis of the forklift truck. Each ring is rated to 2000kg.



- **STD option or SPED**
- **STD**

## **DSS** DOES

- › Adjust Travel speed
- › Adjust accel/deccel targets
- › Adjust tilt range
- › Adjust tilt speed
- › Lockout mast upward travel\*

## **DSS** DOES NOT

- › Change operator braking
- › Change steering range
- › Bring truck to a stop
- › Lock hydraulic levers

## Description

- DSS (Dynamic Stability System) supports both lateral and forward stability through truck system control designed to reinforce proper driving operation. DSS includes active hydraulic tilt and hoist limits, traction speed limits and sometimes speed/acceleration de-rates depending on stability critical scenarios and truck configuration. DSS also provides alerts to the operator via the truck display based on truck real time performance and load on the forks.
- All events can also be logged in the telemetry system (if equipped), providing supervisors with data on operator performance and clear insight into truck incidents. For the corner control sub-system there are 4 available settings, which are adjustable to suit the application needs of the customer and the skill level of the operator. The highest setting provides the earliest and most aggressive speed reduction profile, which may be beneficial to new operators and those needing retraining.
- Please see the DSS section in the Learnlift portal and video for a more detailed explanation of the system.

## Key Feature 1:

### High lift Traction Control



## Key Feature 2:

### High lift Tilt Control

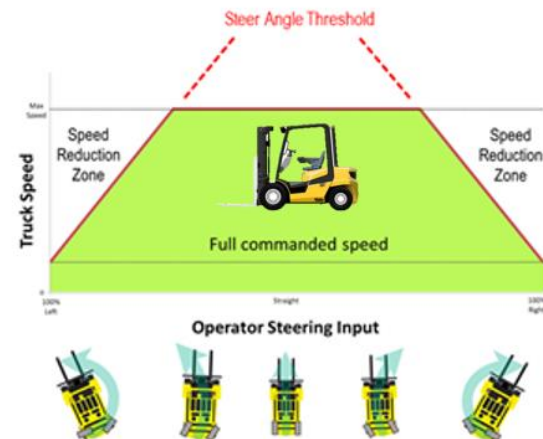
Lift height threshold approx. 1500mm

With load is approx. 30% truck rated load



## Key Feature 3:

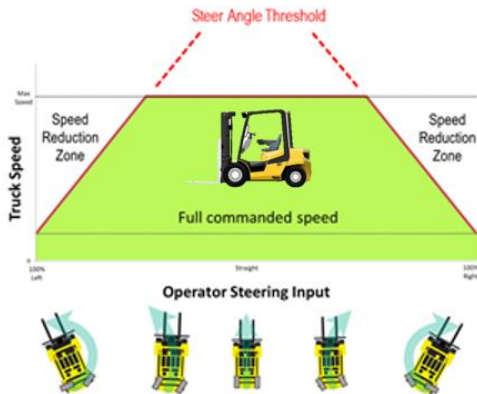
### Corner Control



- STD option or SPED
- STD

### Description

- Properly trained operators of high lift counterbalance lift trucks exercise caution by controlling speed/acceleration/deceleration when maneuvering trucks in corners. Driving a lift truck aggressively in corners may result in unstable loads becoming dislodged and falling from the load engaging means (Example: Forks). Operators driving a lift truck aggressively in corners (particularly in the unloaded condition) may also result in the lift truck becoming unstable to the point where the truck could potentially overturn.
- The Speed Reduction in Corners option controls speed/acceleration/deceleration during cornering manoeuvres which helps reinforce proper operating practices and may reduce the likelihood of a lateral tip over should the operator improperly place the truck in a potentially unstable condition. There are 4 level settings, which are adjustable to suit the application needs of the customer.
- Only compatible with Techtronix and hydrostatic transmissions.



- **STD option or SPED**
- STD

### Description

- Remember your Yale Series N come fitted with telemetry as standard. Take advantage and get to know more about your operation.
- The Telemetry Antenna is a device that allows communication between the Yale Vision telemetry systems and their cloud servers. Removal of the antenna should only be selected if a customer does not allow forklift truck data to be shared. No company or personal data is shared. The antenna is designed to support the future roll out of remote programming and fault finding.

# Yale Vision Wireless Monitoring – with Cellular Connectivity



- STD option or SPED
- STD

## Description

KEY FEATURES			
	WIRELESS MONITORING	WIRELESS ACCESS	WIRELESS VERIFICATION
<b>REMOTE HOUR METER</b> VIEW AND MANAGE KEY PERFORMANCE INDICATOR DATA PER TRUCK, FLEET AND LOCATION.	●	●	●
<b>FAULT CODE TRACKING</b> TRACK AND RESPOND TO CAN-BASED FAULT CODES.	●	●	●
<b>IMPACT SENSING</b> REPORT, DISPLAY AND LOG IMPACT EVENTS.	●	●	●
<b>COST OF OPERATIONS</b> AGGREGATE ALL YOUR COSTS – SEE YOUR REAL TCO.	●	●	●
<b>PM TRACKER</b> REMOETLY VIEW AND MANAGE EQUIPMENT SERVICING, ALL VIA THE HYSTER TRACKER PORTAL.	●	●	●
<b>GPS SNAPSHOT</b> RECORDS LAST TRUCK POSITION ON A GOOGLE MAP OR SATELLITE VIEW PROVIDES EVENT LOCATION AND TIMING OF CRITICAL IMPACTS.	●	●	●
<b>ACCESS CONTROL</b> PREVENT UNAUTHORIZED OPERATION BY UNTRAINED OPERATORS.	●	●	●
<b>AUTOMATIC SHUTDOWN</b> SAVE ENERGY WHEN TRUCKS ARE NOT IN USE.	●	●	●
<b>OPERATOR PRE-SHIFT CHECKLIST</b> HELP ENSURE OPERATORS COMPLETE MANDATORY CHECKLISTS – BEFORE TRUCK OPERATION.	●	●	●
<b>GPS MOTION</b> PLOTS THE SESSION MOVEMENT BY CONTINUOUS TRACKING ('THREAD-CRAWLING') ON A MAP RECORDING LOCATION, TIMESTAMP, SPEED.	○	◐	◐
<b>RAPID MESSENGER</b> INSTANT NOTIFICATIONS OF A CONFIGURABLE EVENT LIKE A REGISTERED IMPACT SEND VIA E-MAIL TO THE RELEVANT STAKEHOLDERS	◐	●	●
○ NOT AVAILABLE ◐ AVAILABLE AS OPTION ● INCLUDED			

# YAHIDN YAISON

# Yale Vision – Wireless Access HID/ISO



- STD option or SPED
- STD

## Description

- With the wireless access, customers can control who can operate a piece of equipment, limiting use to properly trained and certified operators.
- By requiring operators to swipe their card before they can operate the forklift truck, the system has the ability to record who is operating the forklift truck, and how they are operating it, including any impact events. This helps increase operator accountability, improving driving behaviour and reducing damage to equipment, infrastructure and goods.

KEY FEATURES			
	WIRELESS MONITORING	WIRELESS ACCESS	WIRELESS VERIFICATION
<b>REMOTE HOUR METER</b> VIEW AND MANAGE KEY PERFORMANCE INDICATOR DATA PER TRUCK, FLEET AND LOCATION.	●	●	●
<b>FAULT CODE TRACKING</b> TRACK AND RESPOND TO CAN-BASED FAULT CODES.	●	●	●
<b>IMPACT SENSING</b> REPORT, DISPLAY AND LOG IMPACT EVENTS.	●	●	●
<b>COST OF OPERATIONS</b> AGGREGATE ALL YOUR COSTS – SEE YOUR REAL TOOL.	●	●	●
<b>PM TRACKER</b> RECENTLY VIEW AND MANAGE EQUIPMENT SERVICING, ALL VIA THE HYSTER TRACKER PORTAL.	●	●	●
<b>GPS SNAPSHOT</b> RECORDS LAST TRUCK POSITION ON A GOOGLE MAP OR SATELLITE VIEW PROVIDES EVENT LOCATION AND TIMING OF CRITICAL IMPACTS.	●	●	●
<b>ACCESS CONTROL</b> PREVENT UNAUTHORIZED OPERATION BY UNTRAINED OPERATORS.	●	●	●
<b>AUTOMATIC SHUTDOWN</b> SAVE ENERGY WHEN TRUCKS ARE NOT IN USE.	●	●	●
<b>OPERATOR PRE-SHIFT CHECKLIST</b> HELP ENSURE OPERATORS COMPLETE MANDATORY CHECKLISTS – BEFORE TRUCK OPERATION.	●	●	●
<b>GPS MOTION</b> PLOTS THE SESSION MOVEMENT BY CONTINUOUS TRACKING (WHEELS CONTINUING) VIA A MAP RECORDING LOCATION, TRAVEL TIME, SPEED.	○	○	○
<b>RAPID MESSENGER</b> INSTANT NOTIFICATIONS OF A CONFIRMABLE EVENT LOG A REGISTERED IMPACT SEND THE SIGNAL TO THE RELEVANT STATION/HOLDING.	○	○	○
○ NOT AVAILABLE    ○ AVAILABLE AS OPTION    ● INCLUDED			














# Yale Vision – Wireless Verification

- STD option or SPED
- STD

## Description

- With the wireless verification, forklift truck issues can quickly and easily be tracked and addressed by the customer. The system adds the pre-start operator checklist to the display.
- The system eliminates the need to collect and file paper checklists, allowing for easy analysis of historical checklist data as well as monitoring the time it takes for operators to complete their checklists. This increases operator accountability and provides businesses with critical data to support best practices.

KEY FEATURES			
	WIRELESS MONITORING	WIRELESS ACCESS	WIRELESS VERIFICATION
 <b>REMOTE HOUR METER</b> VIEW AND MANAGE KEY PERFORMANCE INDICATOR DATA PER TRUCK, FLEET AND LOCATION.	●	●	●
 <b>FAULT CODE TRACKING</b> TRACK AND RESPOND TO CAN-BASED FAULT CODES.	●	●	●
 <b>IMPACT SENSING</b> REPORT, DISPLAY AND LOG IMPACT EVENTS.	●	●	●
 <b>COST OF OPERATIONS</b> AGGREGATE ALL YOUR COSTS – SEE YOUR REAL TCO.	●	●	●
 <b>PM TRACKER</b> REMOVELY VIEW AND MANAGE EQUIPMENT SERVICING, ALL VIA THE HYSTER TRACKER PORTAL.	●	●	●
 <b>GPS SNAPSHOT</b> RECORDS LAST TRUCK POSITION ON A GOOGLE MAP OR SATELLITE VIEW PROVIDES EVENT LOCATION AND TIMING OF CRITICAL IMPACTS.	●	●	●
 <b>ACCESS CONTROL</b> PREVENT UNAUTHORIZED OPERATION BY UNTRAINED OPERATORS.	●	●	●
 <b>AUTOMATIC SHUTDOWN</b> SAVE ENERGY WHEN TRUCKS ARE NOT IN USE.	●	●	●
 <b>OPERATOR PRE-SHIFT CHECKLIST</b> HELP ENSURE OPERATORS COMPLETE MANDATORY CHECKLISTS – BEFORE TRUCK OPERATION.	●	●	●
 <b>GPS MOTION</b> PLOTS THE SESSION MOVEMENT BY CONTINUOUS TRACKING (WHEELS) SHOWING VIA A MAP RECORDING LOCATION, TIME/STAMP, SPEED.	○	○	○
 <b>RAPID MESSENGER</b> INSTANT NOTIFICATIONS OF A COMFORTABLE EVENT LOG A REGISTERED IMPACT SEND THE ALARM TO THE RELEVANT STATIONING.	○	●	●
○ NOT AVAILABLE   ● AVAILABLE AS OPTION   ● INCLUDED			





# Lights & Alarms



LED Work Lights - 2 Front, 1 Rear
LED Work Lights - 2 Front
Hi Performance LED Work Lights - 2 Front, 1 Rear
Hi Performance LED Work Lights - 2 Front
Less Rear lights
Brake / Tail / Back-Up
Brake / Tail / Back-Up / Turn
Brake / Tail / Back-Up / Turn / Hazards
Manual Work Light Control
Key activated (continous) Work Light Control
Directional (Rear Lights Only) Work Light Control
Red LED Pedestrian Awareness Spot Light - Front
Red LED Pedestrian Awareness Spot Light - Rear
Red LED Pedestrian Awareness Spot Light - Front and Rear
Blue LED Pedestrian Awareness Spot Light - Front
Blue LED Pedestrian Awareness Spot Light - Rear
Blue LED Pedestrian Awareness Spot Light - Front and Rear
Directional Pedestrian Awareness Spot Light control
Continuous Pedestrian Awareness Spot Light control
Red Pedestrian Awareness Perimeter Lights - Left and Right
Red Pedestrian Awareness Perimeter Lights - Left, Right and Rear
LED Mast Lights - 2 Up Direction
LED Mast Lights - 2 Down Direction
LED Mast Lights - 2 Up and 2 Down Direction

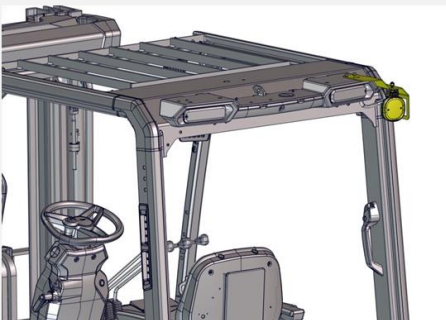
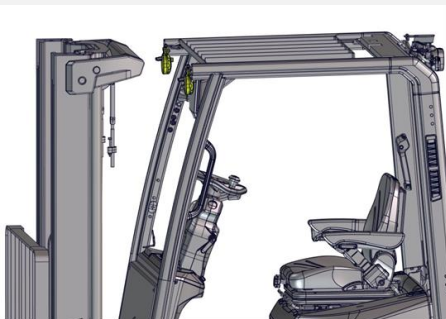
Amber Strobe Light
Audible Reverse Alarm
Audible Forward and Reverse Alarm

# WLED21

## LED Work Lights - 2 Front, 1 Rear



- **STD option or SPED**
- **STD**



### Description

- 2 work lights fitted to the front top of the overhead guard and a single work light fitted to the rear of the overhead guard. Both sets of light help driving and/or loading by illuminating dark and poorly lit areas in the operating direction of the forklift truck. This is the best choice for any application operating inside of other vehicles or working outside in dark or low light conditions.
- LED (Light Emitting Diode) Technology offers various improvements over traditional halogen bulbs. They are long life, more durable, and more efficient meaning LED lights provide significant savings in service cost and power consumption. 700 lumen work lights provide a clear white light.
- LED lights over a 5 year period will be cheaper to own and reduce down time compared to a Halogen light.



# WLED2F

## LED Work Lights - 2 Front



- **STD option or SPED**
- **STD**

### Description

- 2 work lights fitted to the front top of the overhead guard. These face forward providing beams of light for illuminating dark and poorly lit areas in front of the forklift truck. They also help the forklift truck to be seen by other vehicles. These should be selected as a minimum in any application operating inside of other vehicles or working outside in dark or low light conditions.
- LED (Light Emitting Diode) Technology offers various improvements over traditional halogen bulbs. They are long life, more durable, and more efficient meaning LED lights provide significant savings in service cost and power consumption. 700 lumen work lights provide a clear white light.
- LED lights over a 5 year period will be cheaper to own and reduce down time compared to a Halogen light.

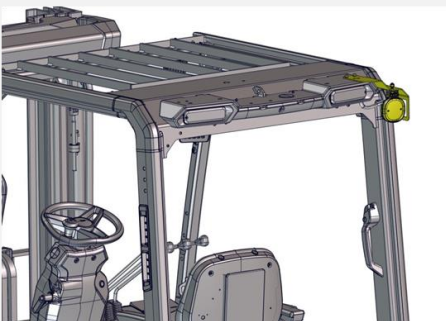
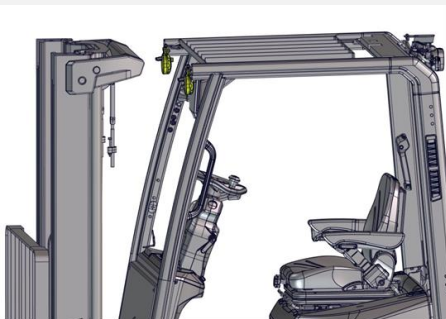


# WLDH21

## Hi Performance LED Work Lights - 2 Front, 1 Rear



- **STD option or SPED**
- **STD**



### Description

- 2 work lights fitted to the front top of the overhead guard and a single work light fitted to the rear of the overhead guard. Both sets of light help driving and/or loading by illuminating dark and poorly lit areas in the operating direction of the forklift truck. This is the best choice for any application operating inside of other vehicles or working outside in dark or low light conditions.
- LED (Light Emitting Diode) Technology offers various improvements over traditional halogen bulbs. They are long life, more durable, and more efficient meaning LED lights provide significant savings in service cost and power consumption. 1200 lumen work lights provide a clear white light and improved low light visibility.
- LED lights over a 5 year period will be cheaper to own and reduce down time compared to a Halogen light.

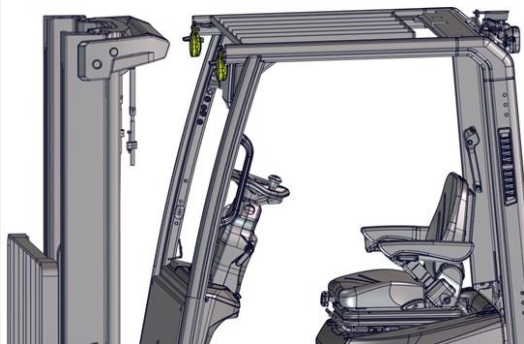


# Hi Performance LED Work Lights - 2 Front

- **STD option or SPED**
- **STD**

## Description

- 2 work lights fitted to the front top of the overhead guard. These face forward providing beams of light for illuminating dark and poorly lit areas in front of the forklift truck. They also help the forklift truck to be seen by other vehicles. These should be selected as a minimum in any application operating inside of other vehicles or working outside in dark or low light conditions.
- LED (Light Emitting Diode) Technology offers various improvements over traditional halogen bulbs. They are long life, more durable, and more efficient meaning LED lights provide significant savings in service cost and power consumption. 1200 lumen work lights provide a clear white light and improved low light visibility.
- LED lights over a 5 year period will be cheaper to own and reduce down time compared to a Halogen light.



# LTNONE

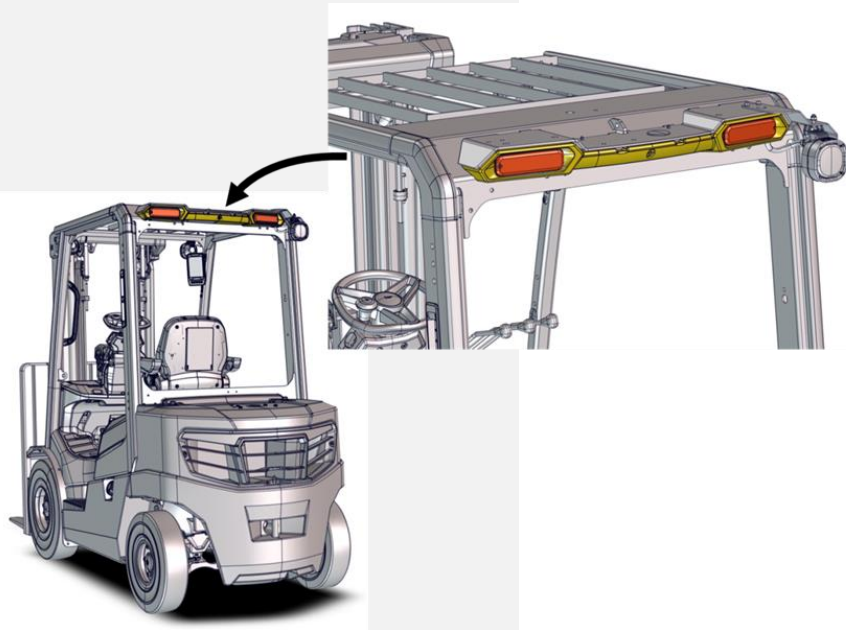
## Less Rear lights



- **STD option or SPED**
- **STD**

### Description

- A reflector package is fitted to the rear of the overhead guard.



# LEDBTB

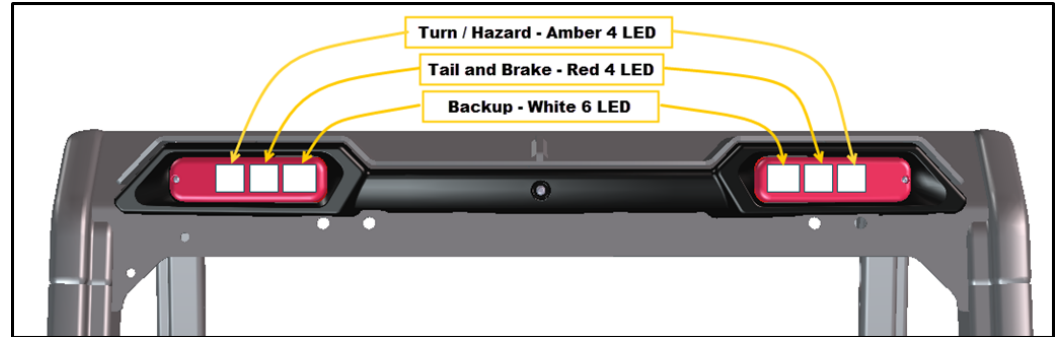
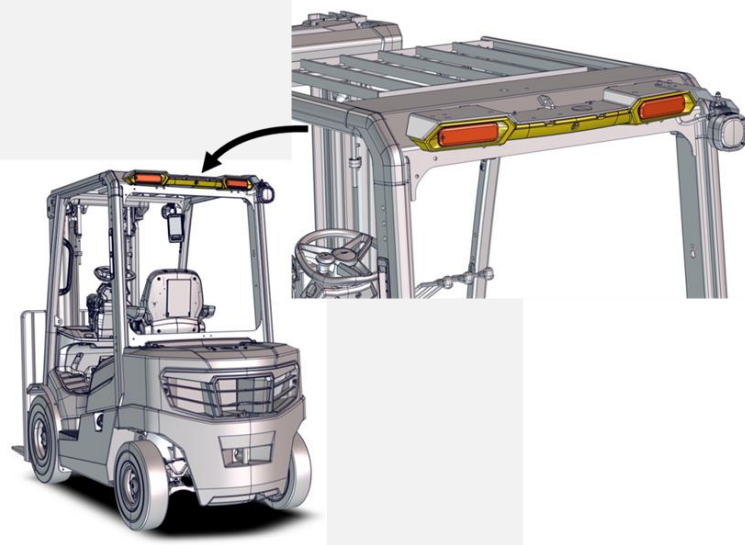
## Brake / Tail / Back-Up



- **STD option or SPED**
- **STD**

### Description

- This option provides functionality of Brake, Tail (parking / running) and Backup lights. The tail light package option is a common means of providing an alert of the presence of a forklift in the area and is suitable for applications where multiple vehicles or people are working in the same area.





# LDBTB

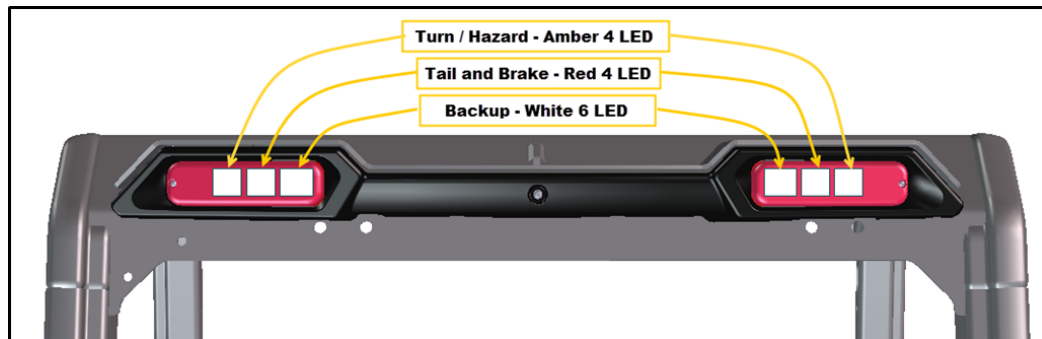
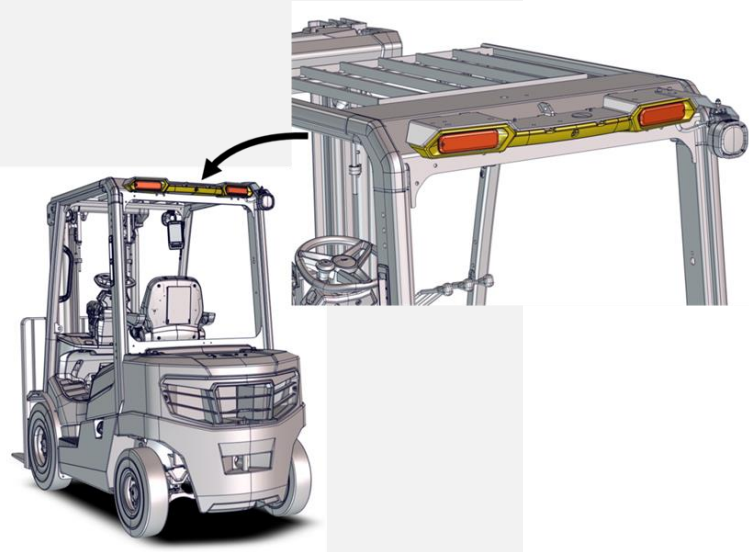
## Brake / Tail / Back-Up / Turn



- STD option or SPED
- STD

### Description

- This option provides functionality of Brake, Tail (parking / running), Backup and Turn signal lights. The tail light package option is a common means of providing an alert of the presence of a forklift in the area and is suitable for applications where multiple vehicles or people are working in the same area.





# LDBTBH

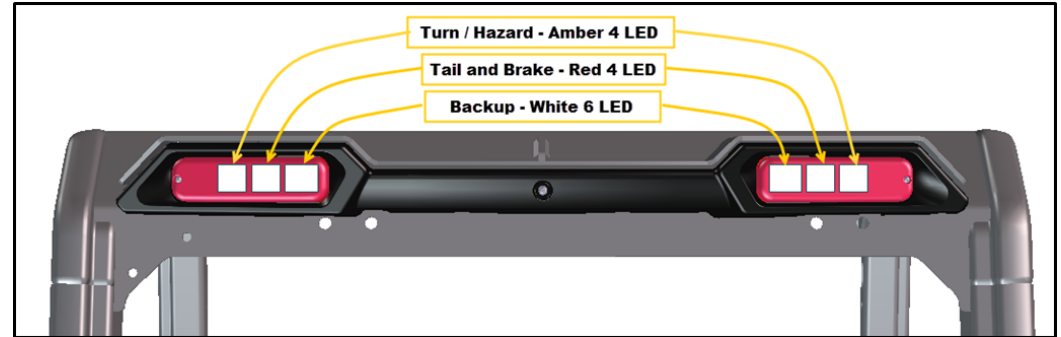
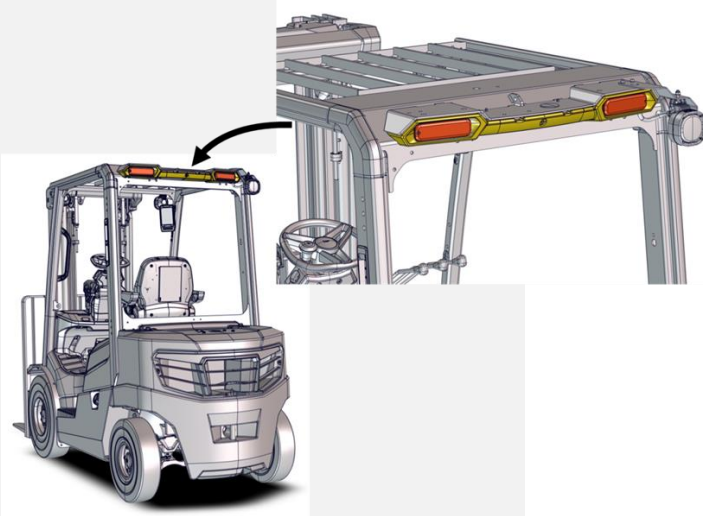
## Brake / Tail / Back-Up / Turn / Hazards



- **STD option or SPED**
- **STD**

### Description

- This option provides functionality of Brake, Tail (parking / running), Backup, Turn and Hazard signal lights. Hazard lights are controlled by a switch on the dash. The tail light package option is a common means of providing an alert of the presence of a forklift in the area and is suitable for applications where multiple vehicles or people are working in the same area.



- **STD option or SPED**
- **STD**

### Description

- The work lights are controlled by a switch in the dash allowing the operator can choose when to turn on and off the work lights. Suited for applications where low light conditions are not always the norm or the customer wants to be able to turn work lights on and off.



# Key activated (continuous) Work Light Control



- **STD option or SPED**
- **STD**

## Description

- The work lights turn on and remain on while the forklift truck is on. Suited for applications where low light conditions are expected during normal operation, saving the operator the task of manually controlling the lights. The work lights being on communicates that the forklift truck is on and active.

# Directional (Rear Lights Only) Work Light Control



- **STD option or SPED**
- **STD**

## Description

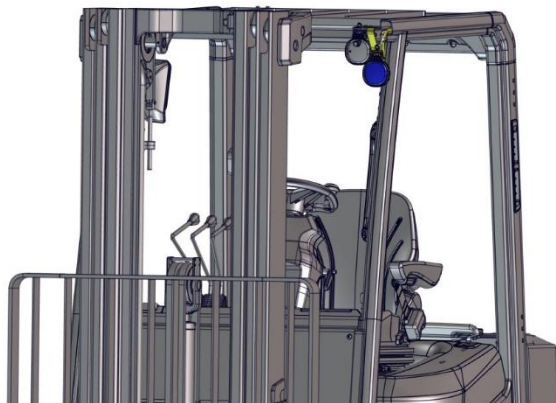
- The rear work light turns on when the forklift truck is in reverse and turns off when the forklift truck is not in reverse. This option can supplement a rear Brake / Tail / Back-Up Lights package by alerting others to the forklift truck being in reverse. A customer may want this option if the rear work light is providing too much light while the forklift truck is driving around normally.

# Red LED Pedestrian Awareness Spot Light - Front

- **STD option or SPED**
- **STD**

## Description

- The Red Pedestrian Awareness spot light shines a bright red spot on the ground/floor that is visible to pedestrians and other equipment operators in most indoor applications. They are suited for indoor applications where forklifts approach blind corners, cross aisles, load trailers or where pedestrians are present in the workspace. Pedestrian Awareness spot lights use LED lights for high durability and increased reliability. Pedestrian Awareness spot lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



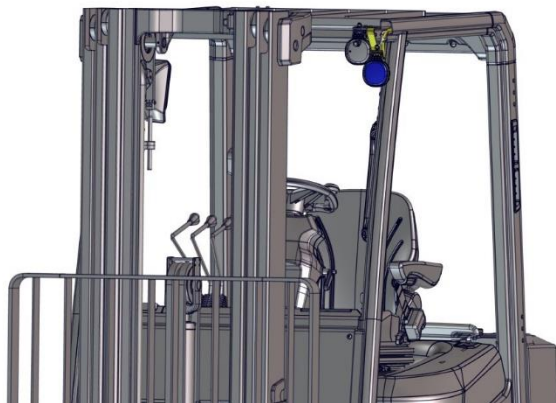
Note: Front and rear blue pedestrian awareness light options shown

## Red LED Pedestrian Awareness Spot Light - Rear

- **STD option or SPED**
- **STD**

### Description

- The Red Pedestrian Awareness spot light shines a bright red spot on the ground/floor that is visible to pedestrians and other equipment operators in most indoor applications. They are suited for indoor applications where forklifts approach blind corners, cross aisles, load trailers or where pedestrians are present in the workspace. Pedestrian Awareness spot lights use LED lights for high durability and no need to replace burned-out bulbs. Pedestrian Awareness spot lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



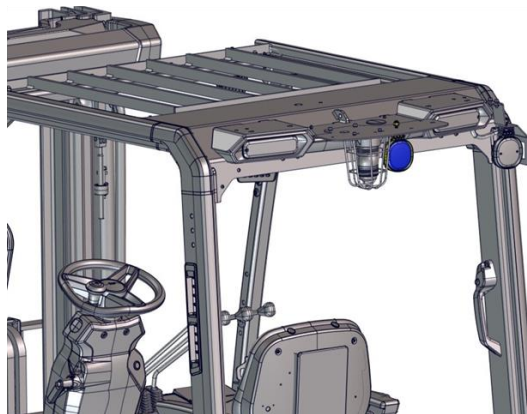
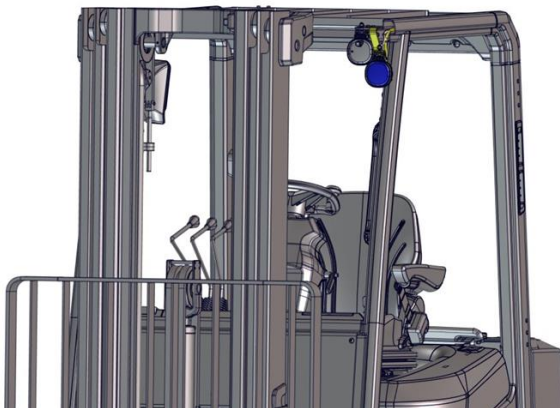
Note: Front and rear blue pedestrian awareness light options shown

# Red LED Pedestrian Awareness Spot Light - Front and Rear

- **STD option or SPED**
- **STD**

## Description

- The Red Pedestrian Awareness spot light shines a bright red spot on the ground/floor that is visible to pedestrians and other equipment operators in most indoor applications. They are suited for indoor applications where forklifts approach blind corners, cross aisles, load trailers or where pedestrians are present in the workspace. Pedestrian Awareness spot lights use LED lights for high durability and no need to replace burned-out bulbs. Pedestrian Awareness spot lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.

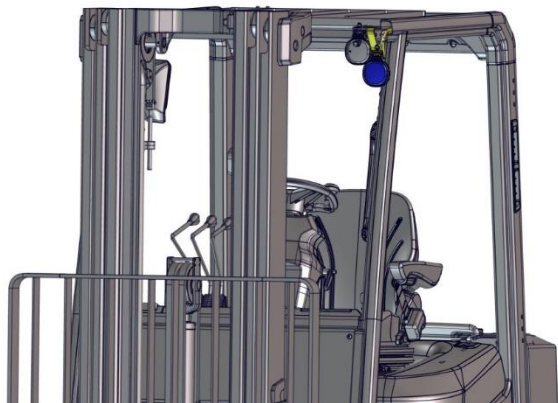


# Blue LED Pedestrian Awareness Spot Light - Front

- STD option or SPED
- STD

## Description

- The Blue Pedestrian Awareness spot light shines a bright blue spot on the ground/floor that is visible to pedestrians and other equipment operators in most indoor applications. They are suited for indoor applications where forklifts approach blind corners, cross aisles, load trailers or where pedestrians are present in the workspace. Pedestrian Awareness spot lights use LED lights for high durability and increased reliability. Pedestrian Awareness spot lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



Note: Front and rear blue pedestrian awareness light options shown

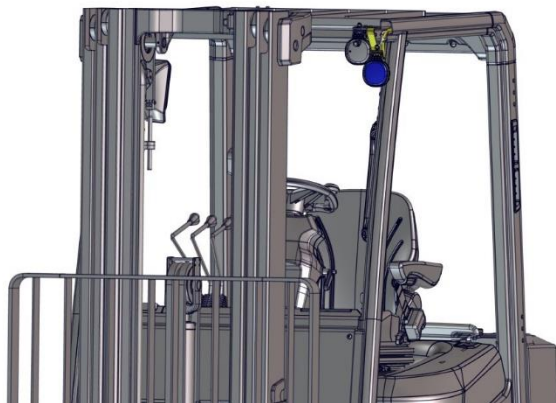


## Blue LED Pedestrian Awareness Spot Light - Rear

- **STD option or SPED**
- **STD**

### Description

- The Blue Pedestrian Awareness spot light shines a bright blue spot on the ground/floor that is visible to pedestrians and other equipment operators in most indoor applications. They are suited for indoor applications where forklifts approach blind corners, cross aisles, load trailers or where pedestrians are present in the workspace. Pedestrian Awareness spot lights use LED lights for high durability and increased reliability. Pedestrian Awareness spot lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



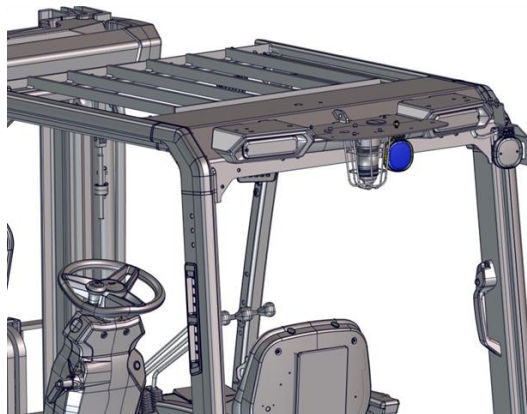
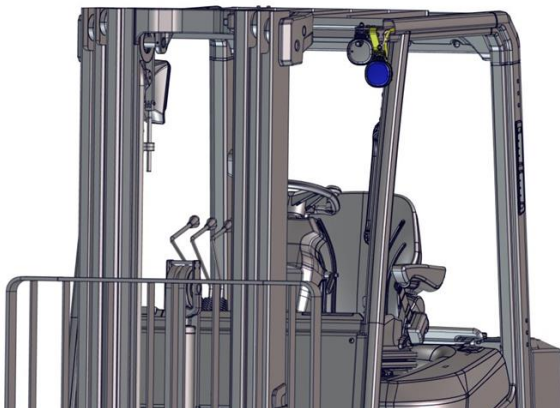
Note: Front and rear blue pedestrian awareness light options shown

# Blue LED Pedestrian Awareness Spot Light - Front and Rear

- **STD option or SPED**
- **STD**

## Description

- The Blue Pedestrian Awareness spot light shines a bright blue spot on the ground/floor that is visible to pedestrians and other equipment operators in most indoor applications. They are suited for indoor applications where forklifts approach blind corners, cross aisles, load trailers or where pedestrians are present in the workspace. Pedestrian Awareness spot lights use LED lights for high durability and increased reliability. Pedestrian Awareness spot lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



# Directional Pedestrian Awareness Spot Light control

- **STD option or SPED**
- STD

## Description

- Forward and reverse-activated Pedestrian Awareness Lights. The light(s) activate based on forklift truck's selected travel direction. The rear Pedestrian Awareness light only activates when forklift truck is in reverse. The front Pedestrian Awareness light only activates when forklift truck is in Forward. Pedestrian Awareness lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.

# Continuous Pedestrian Awareness Spot Light control



- **STD option or SPED**
- **STD**

## Description

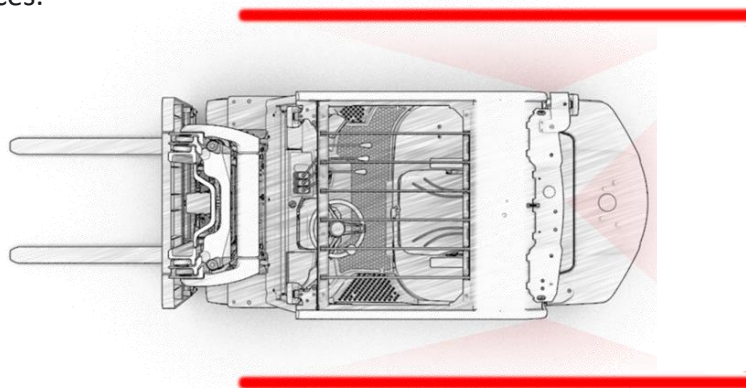
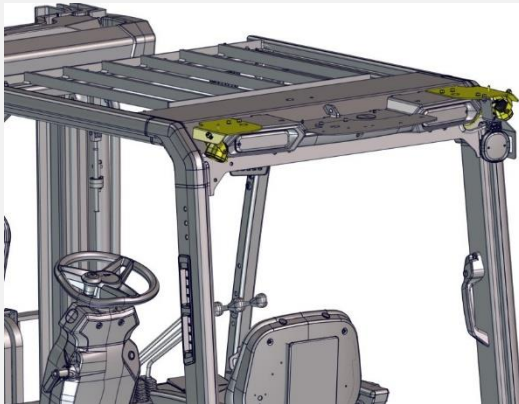
- Pedestrian Awareness Lights are continuously on whenever the forklift truck is switched on. Pedestrian Awareness lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.

# Red Pedestrian Awareness Perimeter Lights - Left and Right

- STD option or SPED
- STD

## Description

- Red Pedestrian Awareness Perimeter Lights or “curtain lights” shine a red line on the ground at predetermined distance away from the forklift truck frame. The red beam of light projected on the ground provides an additional reminder to pedestrians to keep a safe distance away from the forklift truck while the truck is on and in gear.
- Left and right side red awareness lines are placed at 1 m from the side of forklift from the factory and are adjustable to suit the application. Pedestrian Awareness Perimeter Lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



# LPPR2R

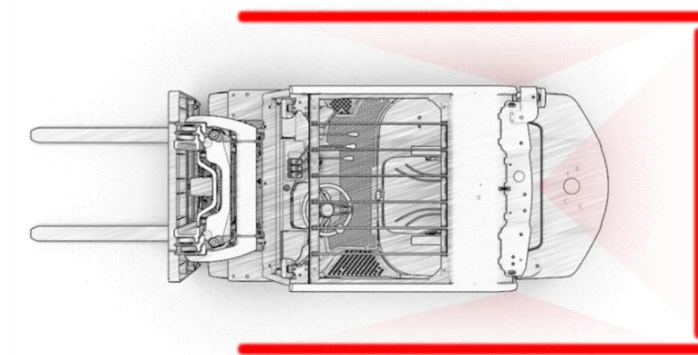
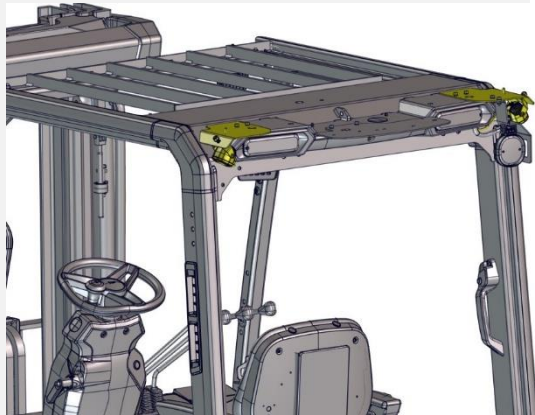
## Red Pedestrian Awareness Perimeter Lights - Left, Right and Rear



- **STD option or SPED**
- **STD**

### Description

- Red Pedestrian Awareness Perimeter Lights or “curtain lights” shine a red line on the ground at predetermined distance away from the forklift truck frame. The red beam of light projected on the ground provides an additional reminder to pedestrians to keep a safe distance away from the forklift truck while the truck is on and in gear.
- Left and right side red awareness lines are placed at 1 m from the side of forklift from the factory. The rear red awareness line is placed at 2 m from the rear counterweight profile. Both are adjustable to suit the application. Pedestrian Awareness Perimeter Lights are not visible outdoors in daylight hours, or indoors in certain brightly lit conditions and surfaces.



- **STD option or SPED**
- **STD**

## Description

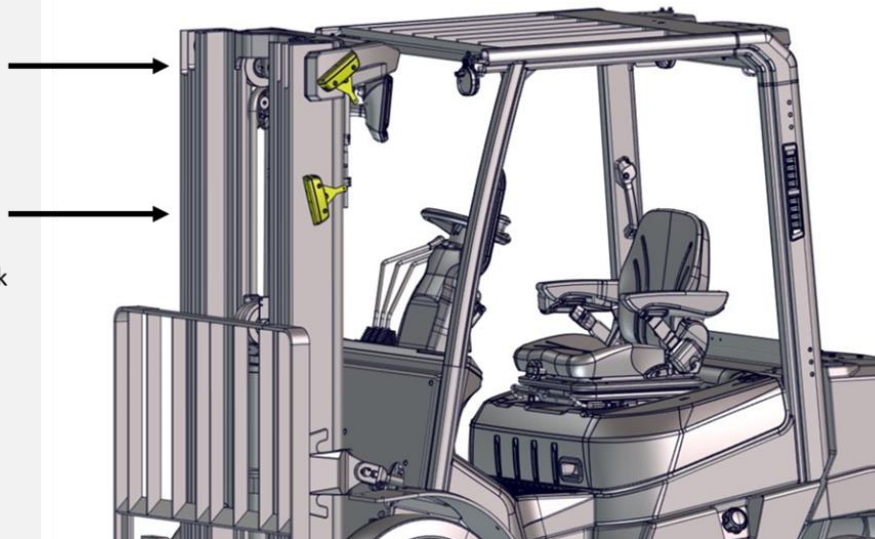
- This option adds additional 2 slim work lights to the mast for applications requiring additional lighting than provided by work lights alone. Ideal for applications needing focused light up towards racking.

### 2 Upper Lights:

- Attached to top mast cross-member
- As mast gets taller (higher lift height options), lights move up with mast.

### 2 Lower Lights:

- Attached to outer mast channel
- Always located at same height on truck



# LMLD2D

## LED Mast Lights - 2 Down Direction



- **STD option or SPED**
- **STD**

### Description

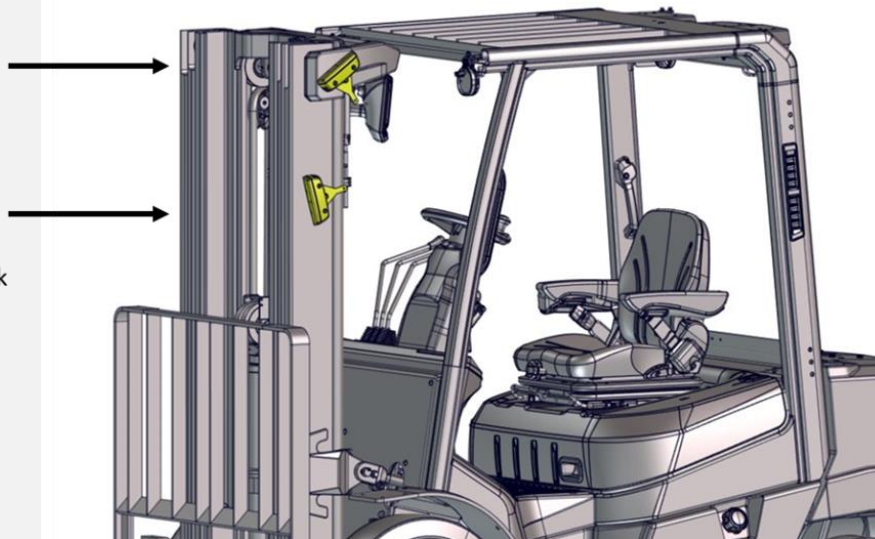
- This option adds additional 2 slim work lights to the mast for applications requiring additional lighting than provided by work lights alone.

### 2 Upper Lights:

- Attached to top mast cross-member
- As mast gets taller (higher lift height options), lights move up with mast.

### 2 Lower Lights:

- Attached to outer mast channel
- Always located at same height on truck





## LED Mast Lights - 2 Up and 2 Down Direction

- **STD option or SPED**
- **STD**

### Description

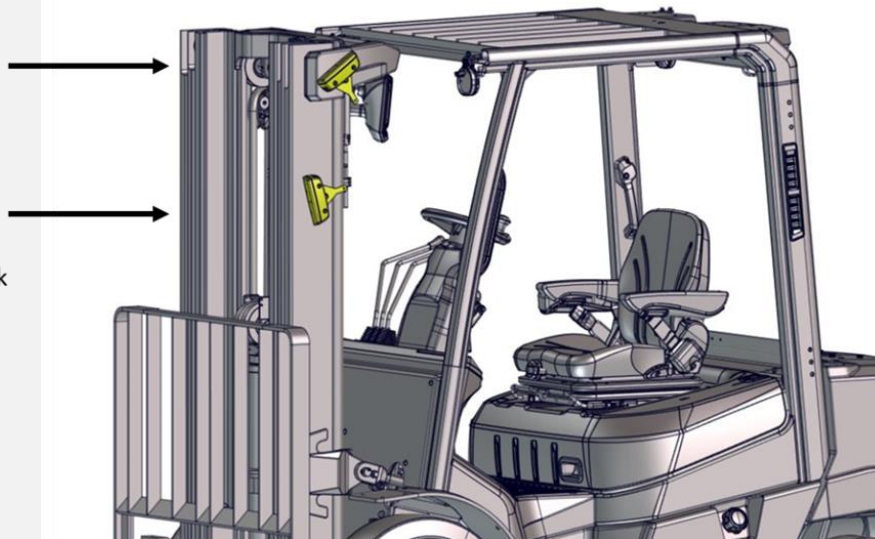
- This option adds additional 4 slim work lights to the mast for applications requiring additional lighting than provided by work lights alone. Ideal for applications needing focused light up towards racking and down towards the floor/load.

### 2 Upper Lights:

- Attached to top mast cross-member
- As mast gets taller (higher lift height options), lights move up with mast.

### 2 Lower Lights:

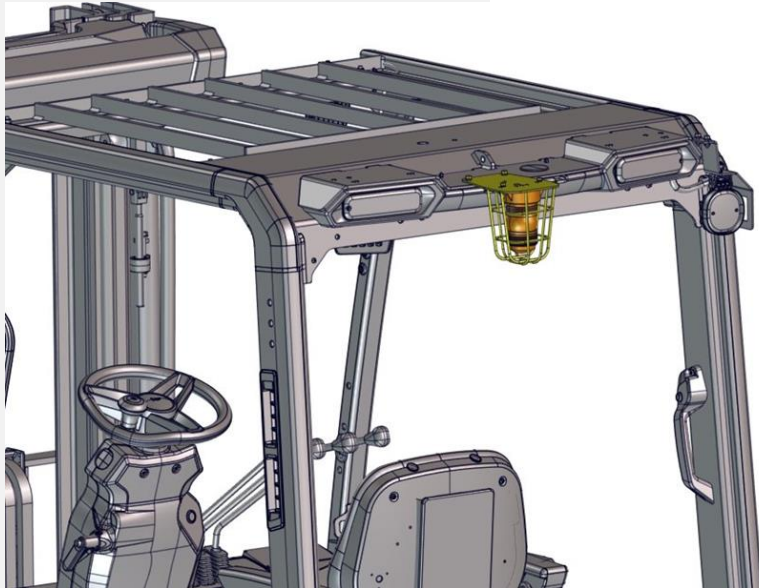
- Attached to outer mast channel
- Always located at same height on truck



- **STD option or SPED**
- **STD**

### Description

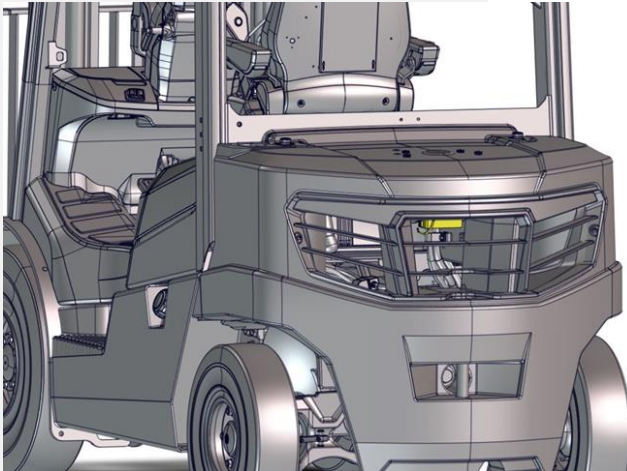
- Industry standard orange LED strobe light flashes while the forklift truck is on and is protected inside a metal cage. The strobe light provides a simple and economical way to communicate forklift truck position and status to other forklift trucks and pedestrians.



- **STD option or SPED**
- **STD**

### Description

- Audible reverse alarm provides an audible alert to pedestrians and other equipment operators of the presence of the unit while it is in the reverse driving direction. Forklift trucks can be equipped with audible reverse alarm if customer determines audible alarm would be beneficial in the specific work environment. Customer must assess pros and cons of audible alarms and the need to warn workers, pedestrians, or equipment traffic as determined by the unique conditions of their operations.



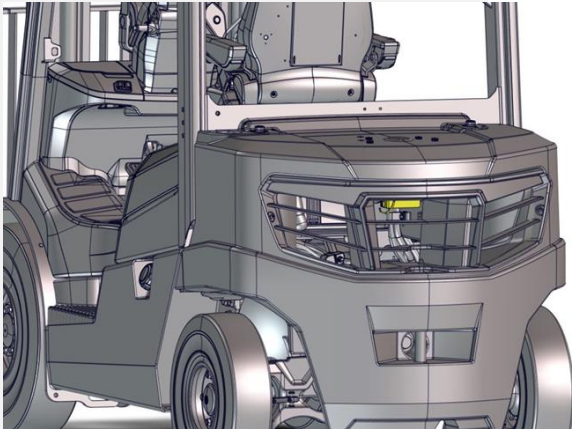
## Audible Forward and Reverse Alarm



- **STD option or SPED**
- **STD**

### Description

- Audible forward and reverse alarm provides an audible alert to pedestrians and other equipment operators of the presence of the unit while it is in the forward or reverse driving direction. Forklift trucks can be equipped with audible forward and reverse alarm if customer determines audible alarm would be beneficial in the specific work environment. Customer must assess pros and cons of audible alarms and the need to warn workers, pedestrians, or equipment traffic as determined by the unique conditions of their operations.





Thank you

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