

by **UNI CARRIERS**

NISSAN
FORKLIFT

1F Series

Pneumatic Tire / Engine-powered Models **1.5-3.5 ton**



UNI CARRIERS
UniCarriers Corporation

Bellport E,6-22-7,Minami-Oi,Shinagawa-ku Tokyo 140-0013,Japan
TEL:+81-3-6730-3200
<http://www.unicarriers.co.jp/en/>

CE1F 1306
Printed in Japan SI-1306-01(EN)

The Reliability to Keep You Going

In the 1F Series, we have brought together the experience of more than 50 years of building superior forklifts and the automobile derived technologies and know-how.

The result is superior reliability, productivity and environmental friendliness, matched with lower costs throughout the life of the truck.

To meet its three key objectives—meeting environmental, operator and owner needs—the super-low-emission engines, drivetrains and other technologies have been used.

The offspring of a proud lineage, the 1F Series gives you the reliability to keep on going.



Key Objectives:

For the **Environment**

Low Emission and
Low Noise

For **Operators**

Safety, Comfort and
Ease of Operation

For **Owners**

Reduced Total Lifecycle Cost

Objective 1: For the Environment

Low Emission and Low Noise

The 1F Series brings together improved environmental protection and a more comfortable working environment. The industry-leading engine technologies have been applied to provide both high performance and super-low emission levels. The 1F Series features the QD32 diesel engine, advanced gasoline and LPG engines in a low-noise design.

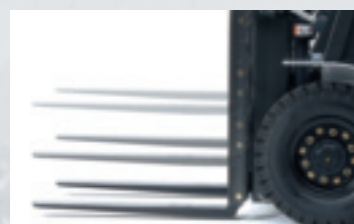
Improved Working Environment

Ultra-low Noise Levels



The 1F Series is designed to provide significantly lower noise levels, which helps reduce operator fatigue and allows the operator to better hear the surrounding environment.

Soft Landing System*



Even if the operator continuously holds the control lever down, the soft landing function will help ensure that the forks smoothly decelerate just before reaching the ground. The system also prevents clatter as the fork descends.

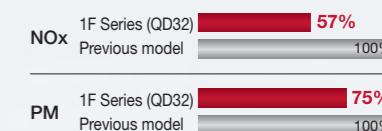
*Available only for the 2W mast



Diesel Engine



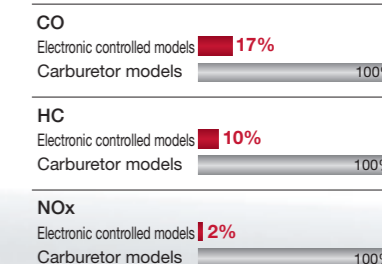
The QD32 diesel engine meets the EU Stage IIIA, and is in compliance with US EPA Tier III regulations. It's based on engines proven through use over millions of miles in commercial vehicles. In addition, the Quick Glow System provides greatly improved starting in cold weather.



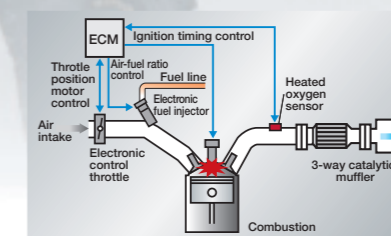
Gasoline and LPG Engines



The engines with electronic controlled system represent a further evolution of world-leading clean emission performances with greatly reduced CO, HC and NOx emissions compared to carburetor models.



Electronic Controlled System and 3-way Catalytic Muffler



This design includes an automotive-type closed-loop feedback system. Once combustion occurs, a sensor measures oxygen concentration in the exhaust gases before they enter the 3-way catalyst, then sends a signal to the ECM. Based on this signal, the ECM makes the proper air/fuel ratio adjustments, resulting in extremely low emission levels.

*ECM: Engine Control Module

FOR OPERATORS

Objective 2: For Operators

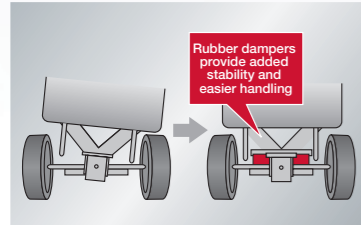
1F Safety, Comfort and Ease of Operation

Safety and Comfort

Our exclusive Swaying Control System helps provide greater control and stability when turning the forklift. It's part of a full range of safety equipment and features that help make for safer operations. The low-noise, low-vibration design provides a much more comfortable operating environment — and reduced operator fatigue means the operator can concentrate on the job at hand.

Superior Stability

Swaying Control System



Our exclusive Swaying Control System*, which provides confident driving control when turning the forklift, is standard equipment.

* The Swaying Control System does not completely eliminate the possibility of the forklift tipping over.

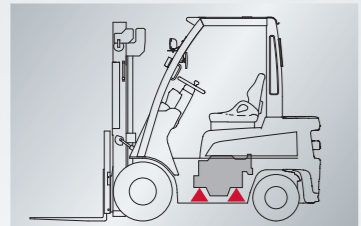
Low Center of Gravity Design



Designed for a low center of gravity, the 1F Series provides excellent stability during operation. For difficult working conditions, this can be further enhanced with the use of double tires.

Low-noise, Low-vibration Design for More Comfortable Operations

Powertrain Float Reduces Vibrations



An automobile-style floating powertrain and rigid frame and chassis reduce the transmission of vibrations to the operator, making longer, more comfortable hours of operation possible.

Speed Selector (Option)



Select maximum speed settings based on operator skill level, or the truck operation characteristics of your operations. (Not available for diesel models and gasoline/LPG carburetor models.)



Safety Features

Three seat-actuated safety features have been provided as standard equipment.

* Please note that there is a three-second delay after the operator leaves the seat before these features are activated.

Mast Lock System



The Mast Lock System, standard on all models, automatically locks all lifting and tilting functions when the operator leaves the seat.

Parking Brake Warning Buzzer



An automobile-style parking brake adds to convenience and safety, with a warning buzzer sounding when the operator leaves the seat without setting the parking brake.

Automatic Transmission Power Cut-off System



When the operator leaves the seat or is not seated properly and the shift lever is not in the neutral position, transmission is automatically shifted to neutral, cutting off power from the engine.

1F

Objective 2: For Operators

Safety, Comfort and Ease of Operation Smart, Easy-operating Controls

The 1F Series is designed to provide a simply better and more productive place to work. The new Multifunctional LCD Meter, spacious operator compartment, standard full suspension seat, smart control layout and responsive handling, all combine to provide operators with a surprisingly comfortable way to get through every workday.



1 Multifunctional LCD Meter

The large, easy-to-see Multifunctional LCD Meter lets the operator check on all aspects of operational status at a glance. The many functions such as the Self-diagnosis System, PIN Access and Service Reminder System ease truck operation and maintenance.

- A Multipurpose warning
- B Glow plug indicator (diesel)
Check engine warning (gasoline/LPG)
- C Oil pressure warning
- D Charge warning
- E Brake warning
- F Seatbelt warning
- G Directional indicator
- H Fuel gauge
- I Water temperature gauge
- J Multifunction display (hour meter, clock/calendar, speedometer, service reminder, warning indicators, error codes)

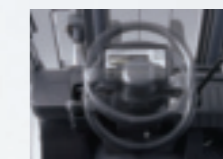
Speedometer



The Multifunctional LCD Meter includes an easy-to-read speedometer; travel speed is displayed whenever the forklift is moving at 4 kph or higher.

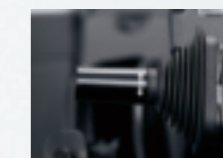


2 Small-diameter Steering Wheel with Tilt Adjustment



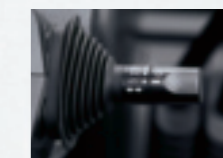
The easy-handling steering wheel with tilt adjustment helps to provide the ideal operating position.

3 Simple, Small-stroke F/R Lever



The forward-reverse lever swings through a smaller arc than previous models, meaning less effort and less total time spent on this basic, often-performed function.

4 Automobile-style Light/Turn-signal Lever



The 1F Series features the thoughtful use of an automobile-style light and turn-signal lever, with simple actions that let the operator focus on the job.

5 Single Control Lever (Option)



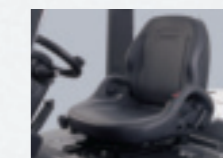
Our original Single Control Lever allows for simultaneous lifting and tilting operations, for greater productivity (double control levers are also available).

6 Easy Entry and Exit



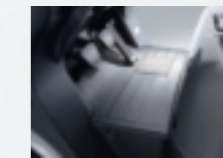
A low floor height makes it easier to step into and out of the forklift, made even more secure with a non-skid steel step.

7 Restraint Seat with Suspension



This special seat, standard on all models, helps provide a secure, comfortable control center for the operator, with ample suspension and hip-support grips.

8 Wide-open Foot Space and Automobile-style Pedal Layout



A comfortable pedal angle, automobile-style pedals and a wide area free from obstructions below the seat provide more ergonomic operation.

FOR OWNERS

Objective 3: For Owners

Reduced Total Lifecycle Cost High Productivity and Low Fuel Consumption

The purchase price is not the true cost of the forklift: throughout the lifetime of the truck it will require fuel, maintenance and labor costs. In the 1F Series, we have very carefully considered the total lifecycle cost of a forklift—and answered this with effective solutions for reduced cost and superior productivity.

These begin with improved gasoline/LPG engines and the QD32 diesel engine, which provide higher performance and reduced fuel consumption. They continue with a superior turning radius and smart, easy-operating controls and a range of available options to give operators better, more efficient control and provide higher productivity.

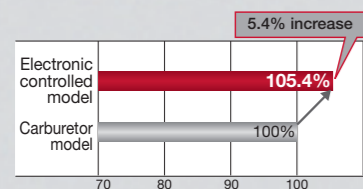
Minimum turning radius
2,230 millimeters*

*2.5 ton model

1,600 millimeters*

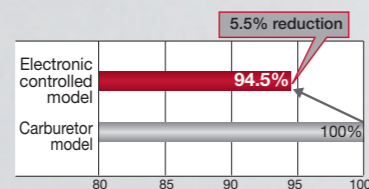
Gasoline/LPG engines with electronic controlled system provides both productivity and low fuel consumption

High Productivity



2.0 ton, K21 engine
*Nissan Forklift figures, Nissan Forklift 15-meter pattern

Low Fuel Consumption



2.0 ton, K21 engine
*Nissan Forklift figures, VDI standard

Based on the number of cycles per hour, the gasoline/LPG model with electronic controlled system in the 1F Series gets more work done, boosting productivity.

The gasoline/LPG model with electronic controlled system provides a 5.5% reduction in fuel consumption compared to the carburetor engine model.

Power/Eco Selector



Standard on the gasoline/LPG model with electronic controlled system, a quick press of the switch to ECO mode provides low noise, a 17% reduction in fuel consumption* and reduction of tire wear compared to POWER mode.

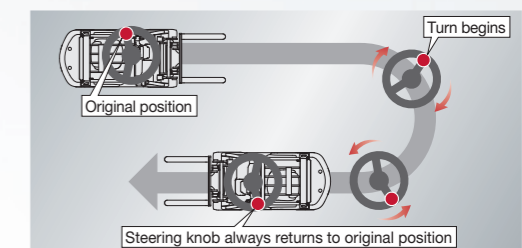
*Nissan Forklift figures

*Performance figures may vary depending on the actual working conditions.



Steering Synchronizer (Option)

A sensor checks the steering and tire angle so the steering knob always returns to original position. This function helps ensure the accurate and consistent coordination of steering wheel and tires, for precise steering.



Tilt Leveling System (Option)

A simple press of a button on the mast control lever brings the forks automatically to the horizontal position—a great aid for new operators.



- 1 Lift and Lower
- 2 Tilt
- 3 Lever for Attachment
- 4 F/R Lever
- 5 Horn Switch
- 6 Emergency Stop

FINGERTIP Control Lever (Option)

The optional fingertip control system uses electro-hydraulic levers for control of travel direction, horn, tilt and lift operations with just a slight touch of the finger, providing greater ergonomics and productivity. Both single and double control levers are available.

(Available on 2.0 and 2.5 ton models with 2W and 3F masts.)



1

Objective 3: For Owners

Reduced Total Lifecycle Cost

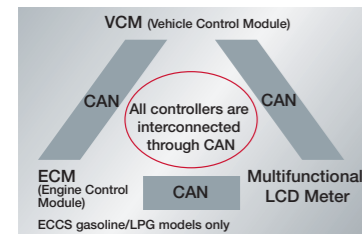
Making Maintenance Easy and Cost Effective

Maintenance is one of the major costs throughout the lifecycle of a forklift. A forklift with the reliability to operate with the lowest amount of downtime also helps to reduce cost over time.

The Self-diagnosis System and easy access for maintenance assure that the time required for maintenance and service is kept to a minimum. Renowned for its top-class reliability, we have further enhanced this with the engines and drivetrains.

Easy Truck Management

VCM and CAN



The Vehicle Control Module (VCM) makes use of information provided by a number of sensors around the forklift, transmitted through the Controller Area Network (CAN), to provide a range of information and control functions. Durability of the VCM has also been increased through the use of waterproof connectors and enclosures meeting the IP65 standard for dust- and water-tightness.



Personal Identification No. (PIN) Access



This 4-digit PIN access system helps avoid unauthorized truck usage. It is also possible to record the actual operating performance of each operator.

Self-diagnosis System



The onboard diagnostic menu with integrated self-check and dialogue-type functions provides easy troubleshooting while reducing maintenance downtime.

Service Reminder System



When the Service Reminder System is activated by the dealer, a reminder indication is shown in the LCD at startup whenever a specified operating hour or day and date has been reached, reminding of the need for regular service.



Easy Maintenance

Wide-opening Engine Compartment



Access to the engine has never been easier, with a wide-opening hood that provides superior access for maintenance and inspection.

Easily-detached Floor and Side Panels



One-touch removal of the floorboard and side panels allows for quick service operations and reduced downtime—and no tools are required.

Strict Testing for Superior Quality



The superior quality and enhanced reliability are assured through strict testing and development system.



Options and Attachments to Meet Varied Customer Needs

These are just a selection of the many options and attachments available for the 1F Series. For more information, please contact your local Authorized Nissan Forklift Dealer.



Smooth-run System
Two different types of accumulators absorb the shocks transmitted from the road surface making both load handling and travel smoother. This offers extra benefits when working with delicate loads on rough surfaces.



LPG Swing-down Bracket
This ergonomically designed swing-down bracket greatly assists in for the lifting and lowering of tanks. The improved design also provides better rearward visibility (available on all LPG-powered models).



AirBoss® Tires*
These hard-wearing, non-burst solid tires feature a three-layer construction and computer-calculated holes to provide a softer ride and better steering stability.
*AirBoss is a registered trade name of AirBoss of Australia.



Double Tires
Double tires are available for greater stability when lifting loads high.



Fork Positioner
A hook-type fork positioner, for accurate positioning of the forks with the load.



Hinged Fork
Securely holds and carries long loads such as lumber or steel pipes.



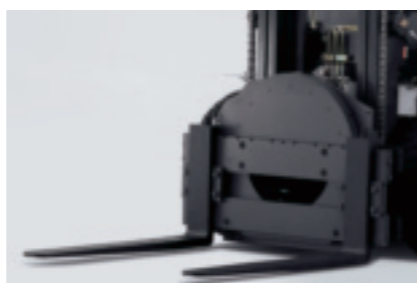
Rain Guard (Resin Type)
While offering good upward visibility, this durable rain-guard protects the operator in inclement weather.



Overhead Exhaust Muffler
This design directs exhaust fumes away from the operator area and minimizes ground debris from entering the engine compartment.



Side Shift
This hook-on type side shifter provides right and left fork movement for accurate stacking.



Rotating Fork
Full 360° rotation, for faster work and easier load discharge.

Other Available Attachments: Roll Clamp, Bale Clamp, Input Bucket (pointed/flat), Load Stabilizer (standard/short) Fork Clamp, etc.

1F Compact Series

Excellent performance and operating abilities in small packages-the 1F Compact Series. Forklifts that bring together high performance and low fuel consumption, backed by original safety equipment to support safe operation, the 1F Series also features an improved super-low-emission engine. The reliability to keep you going, in a compact package ideal for many different operations.

Compact Pneumatic Tire Models



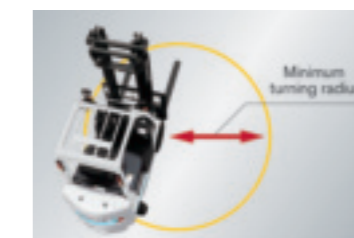
A1F1 1.6 ton



A1F2 2.5 ton

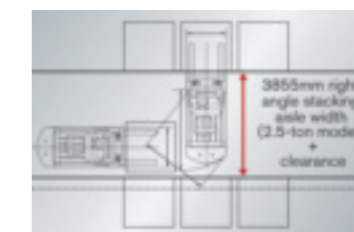
The Compact Pneumatic Tire models are ideally suited for double-duty operations, both in warehouse and rugged yard, with a combination of compact dimensions and superb mobility.

Tighter Turning Radius



In terms of maneuverability, these forklifts deliver remarkable performance: minimum turning radius is just 1850mm for the 1.6-ton model, and no more than 2030mm for the 2.5-ton model.

Right-angle Stacking Aisle



With the 2.5-ton model, the minimum required right-angle stacking aisle width is just 3855mm*. This helps to ensure that complicated work in cramped spaces is simpler, speedier and more efficient.

*Pallets (L x W): 1200 x 800mm

Cushion Tire Models



C1F1 1.5 ton



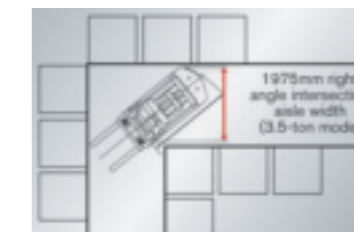
C1F2 2.5 ton

The Cushion Tire models boast great ability in tight indoor spaces, with the smallest dimensions of any of the 1F Series, high stability, and a range of models from 1.5 to 3.6 ton.



C1F2 3.5 ton

Right-angle Intersecting Aisle



The 3.5-ton models have an overall width of 1165mm, overall length of 2495mm, and a minimum required right-angle intersecting aisle width of 1975mm. The combination of reduced dimensions and excellent maneuverability helps operators to get the job done quickly and more smoothly.