

## Superior Engineering Turret Master Training





# PART 1 QF 3

Part 1 – Classroom

Part 2 – Hands on Supervised Review

Part 3 — Practice/Training



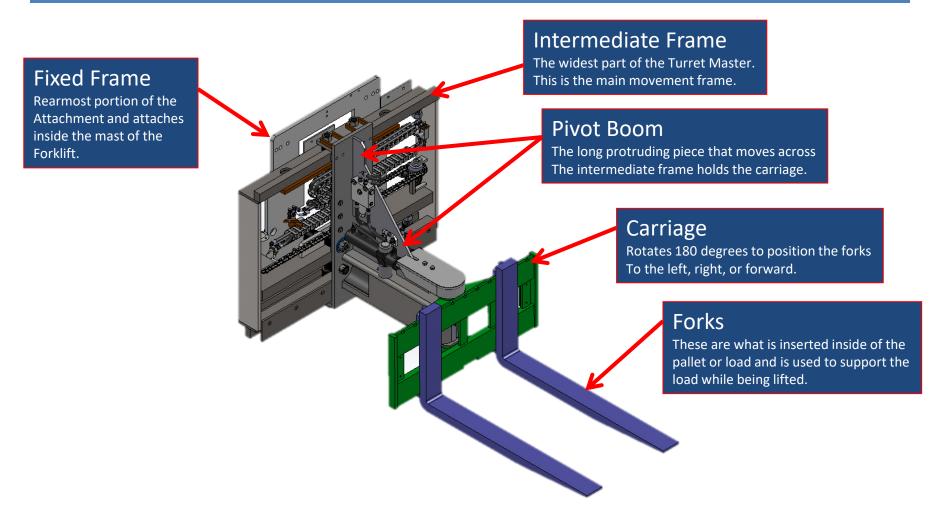
## WHAT DO I NEED TO KNOW?

- -Getting to Know the Turret
- -Read and be trained.
- -Operator Controls.
- -How does the Turret work?
- -What to know before hand.
- -Checklist.
- -How to travel.
- -What not to do.
- -Training Procedures.
- -How to do it properly.
- -Overview of the processes.



### Getting to know the Turret Master

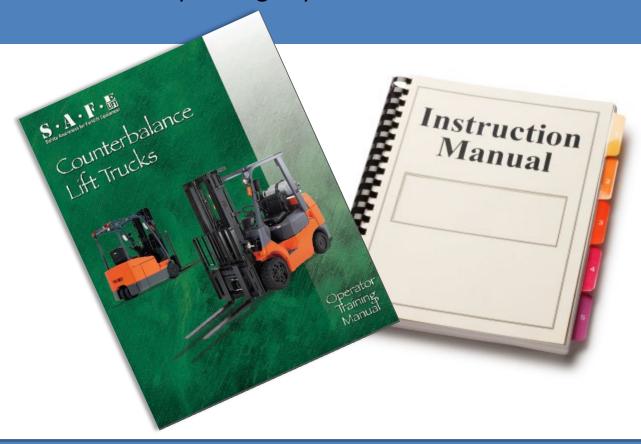
Below are parts of the Turret to familiarize yourself with. These parts are top-level part names and will be referred to throughout the training session.





## Read up - Be trained.

SAFETY: Read and study the operator's manual and special instructions from the lift truck manufacturer before attempting to operate the Turret Master attachment. It is recommended that the operators complete a forklift safety course before operating any lift truck.





### **Operator Controls**

CONTROLS: Be sure that the operator is familiar with the controls that operate the attachment.



The four levers are as follows:

- 1. Mast Lift/Lower
- 2. Mast Tilt
- 3. Side-Shift and Traverse This is a compound function that moves the forks across the main frame of the turret
- 4. Fork Pivot This function will rotate the forks from being indexed to the left to being indexed to the right.



#### **How Does the Turret Work**

The Turret Master is an integral attachment designed to store and retrieve loads within a narrow aisle. In addition, the Turret Master can store and retrieve loads from both sides of the aisle way without needing to re-index the direction of truck travel.







- -Compound Side-Shift and Traverse System
- -180-degree pivoting carriage
- -Standard Mast Lift, Lower and Tilt



#### **How Does the Turret Work**

Compound Traverse and Side-Shift - This feature allows for greater lateral movement in the aisle while maintaining a narrow body width of the turret truck front end. The compound traverse and side-shift feature also allows lateral movement using one hydraulic function instead of the standard two in many trucks.



Intermediate Frame Side-Shifts From side to side.

The Pivot Boom and Carriage traverses across the front of the Intermediate frame.

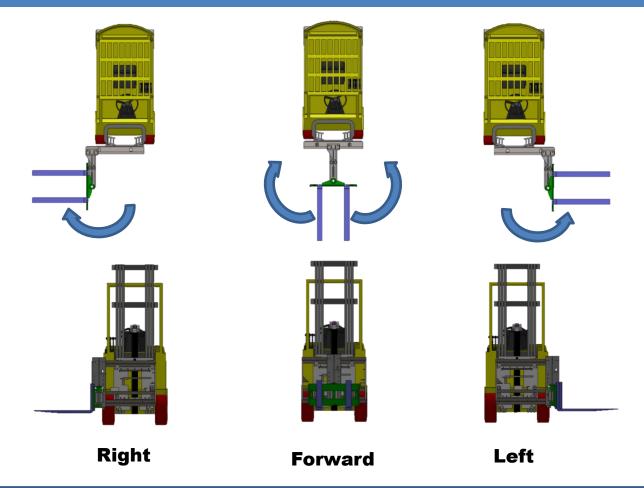


Above Traverse is from the right of the truck to the left of the truck



#### **How Does the Turret Work**

180 Degrees of Pivoting Action- With 180 degrees of fork pivot, the operator can easily work either side of the aisle regardless of forklift orientation. The operator can also swing the forks from one side to the other while positioned in the aisle to give ultimate flexibility to the operator and turret truck.





## Ready for training?



### What to know before hand!

There are certain things you should know before even getting on to the forklift.

- 1. Read and study the lift truck operator's manual before using the turret master.
- 2. Establish the capacity of the truck with the turret.
- 3. Perform a daily checklist for damaged components or potentially dangerous issues.
- 4. Establish the load weights of what you will lift as the operator. If you are unsure of the load weight at any time during your operation of the turret, stop, ascertain the proper weight, and if the weight falls within the capacity of the lift truck, then proceed. If the weight does not fall within the capacity of the lift truck and turret, DO NOT attempt to lift the load.



## **Daily Checklist**

#### Checklist for POWERED INDUSTRIAL TRUCK

Items on this checklist must be inspected before an operator uses the truck.

Battery – During battery change are all connections, cables, casing and structures intent?

Brakes – Are they working in forward and reverse? Does the park brake work? Check fluid level.

Data Plate - Is it intact and legible?

Fluid Leaks on floor – Battery, Hydraulic, Transmission, Engine Oil/ Coolant or other? Check fluid levels for Engine, Coolant, Transmission, and Hydraulics.

Forks - Are they intact, matched and free of oil or other slippery material?

Gauges - Are they all working properly?

Hoist and Tilt - Are there leaks or damage and is the system working properly

orn - Does it work?

Lights - If equipped, are they working properly?

Mast - Are there broken welds or other damage?

Overhead Guard - Are there broken welds, missing bolt Jan

Propane Trucks - Is the tank and visible noses

Propane Odor - If detected, reme the tank at any entrance. Report immediately

Seat Belt - Is it intact and working?

Steering - Is the power steering working.

Tires - Are the tires intact and all lugs in place?

Report all deficiencies or questions you may have to your supervisor

Make sure you complete this truck's sign-off sheet to indicate that you have completed the inspection.





- Perform daily routine checklist as described by the manufacturer and dealer of the lift truck.
- 2. Establish the capacity of the attachment before using.
- Check all chains to make sure that they are properly attached and are not loose, sagging, broken or malformed in any way.
- 4. Make sure that the forks are in good shape. Look for damage that may have occurred during previous usage. Make sure that the fork hooks are solidly welded into place and no cracks in weld are visible. Make sure that the forks are not bent in any direction other than 90°.
- Look at all hydraulic cylinder locations and hydraulic motor locations to verify that there are no visible hydraulic fluid leaks.
- 6. Run all functions to make sure that they are operating correctly.
- If you notice any unusual performance or if you see anything sign of breakage or malfunction, stop, get off of the truck and immediately report it to your supervisor.
- 8. Please study the warning page before operating.

Perform your standard daily checklist and the daily checklist provided in the Turret Master Operators manual.

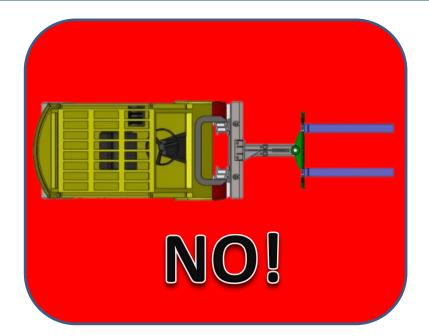


## When Traveling

STORAGE AND RETRIEVAL- The operator should always travel with the forks in a "NESTED" position.

Nested: Always travel with the forks turned perpendicular to the truck's direction of travel. Never travel long distances with the forks in any other configuration. Traveling otherwise puts undue stress on the lift truck's fixed frame and mast and increases the truck's overall length of the truck making it more challenging to maneuver in confined areas.



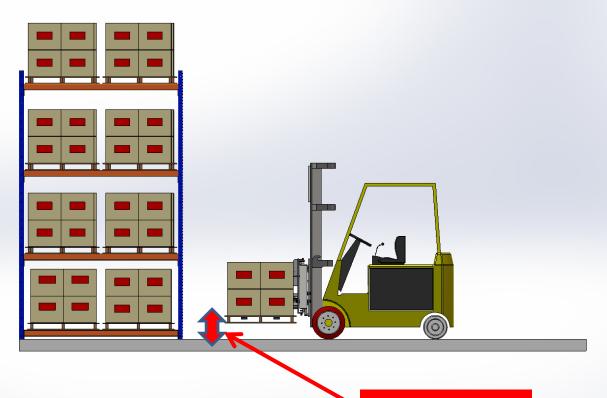




## When Traveling

CARRYING A LOAD- The operator should always travel with a load no more than 12" above ground level.

Always travel with the load nested and in the lowered position. Do not carry the load above 12".



12" above floor



HIGH PIVOTING: Never pivot the Turret Master when raised above four feet. If you must pivot the load to the opposite side, always lower the load first. Never side shift the Turret above floor level except in working aisles. The side-shift function is only to be used to load and unload storage racks above floor level.







OVERLOADING: Never attempt to lift or carry loads that exceed the capacity of the attachment and truck.





PASSENGERS: Do not allow anyone to ride or sit on the lift truck or turret. Activation could cause serious injury.





PUSHING: Do not use the Turret as a pusher. Do not push forward. Do not push laterally. If the forks are not underneath the load and the load is lifted off the ground, do not try to move it. If the turret carriage is made to rotate without the hydraulic control valve being activated, the hydraulic rotation mechanism can become damaged.







### **Training Procedures**

MANEUVERING: Make sure that the operator is familiar with the maneuvering capabilities of the truck with and without loads on the Turret Master attachment.

- 1. Practice Driving at slow speeds. As the operators' skills increase, driving speeds will also improve.
- 2. Practice Driving in an obstacle-free area until the operator knows the clearances necessary to prevent collisions.



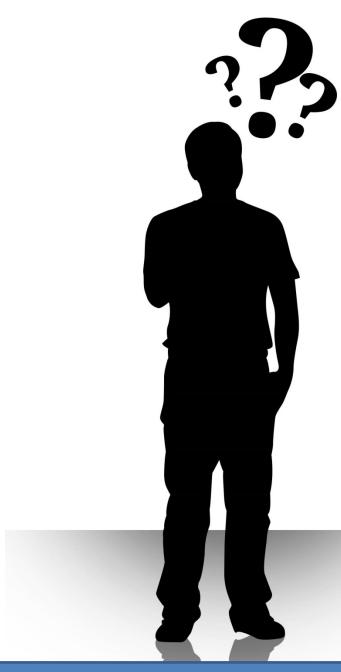


## **Training Procedures**

AISLE SKILLS: After the operator has developed the skill of driving the lift truck with the Turret Master in an obstacle-free area and has become familiar with all controls; the following procedures might help develop the operator's efficiency more rapidly in the area where the lift truck will be used.

- 1. Drive the truck in the aisle without the load until operator efficiency is obtained.
- 2. With a load, start at the lowest level. Store and retrieve the product from level 1 until the operator is comfortable.
- 3. The next step is to obtain efficiency in storing at level 2. Continue this process until the highest level is met with efficiency and comfort.
- 4. When the operator has attained proficiency within the rack, then the operator is now able to use the lift and Turret Master.

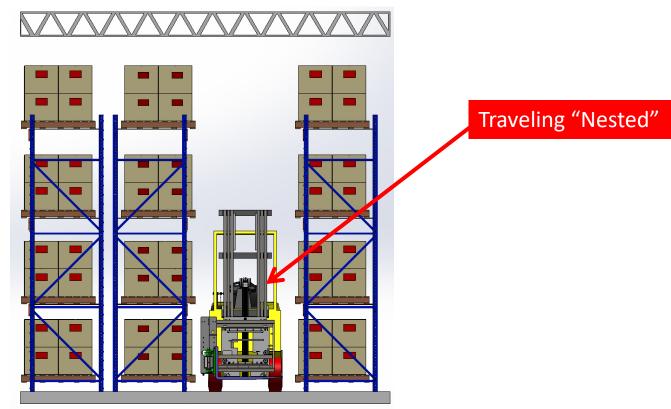




So, How do we really do it...properly?

How to Store and Retrieve: The following is a step-by-step demonstration of how to store and retrieve a load at low levels and then at high levels.

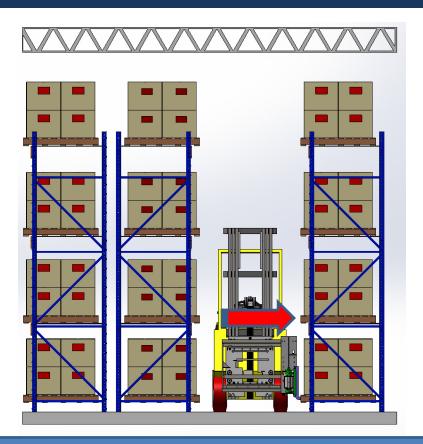
- 1. Center the truck the best you can before entering the aisle way.
- 2. Travel forward consciously down the aisle to your desired location.





How to Store and Retrieve: Continued.

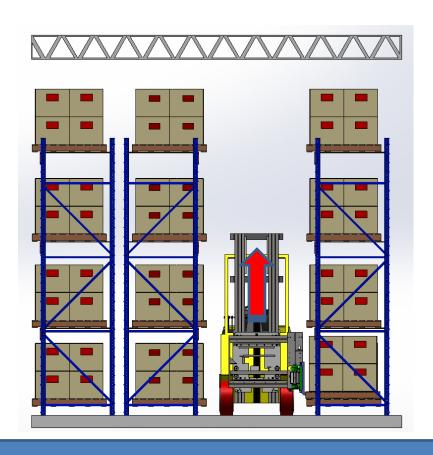
- 3. Align the forks with the opening of your load pallet.
- 4. Pull the Side-Shift/Traverse lever to move the forks toward the load and soundly underneath the pallet.





How to Store and Retrieve: Continued.

5. Lift the load vertically and with enough height to get the pallet's front and rear off the racking surface.

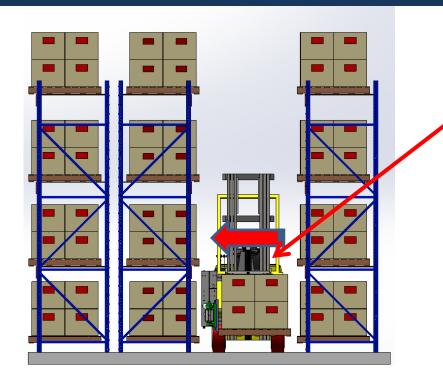




How to Store and Retrieve: Continued.

- 6. Traverse the load out of the rack. Continue pulling the Side-Shift/Traverse lever until the boom movement, and Intermediate frame movement stops. This should center the turret and load\* equally on the truck's center line.

  \*48 x 48 Load
- 7. Lower the unit to around 12" near ground level. Now you should be able to drive forward or backward out of the aisle.

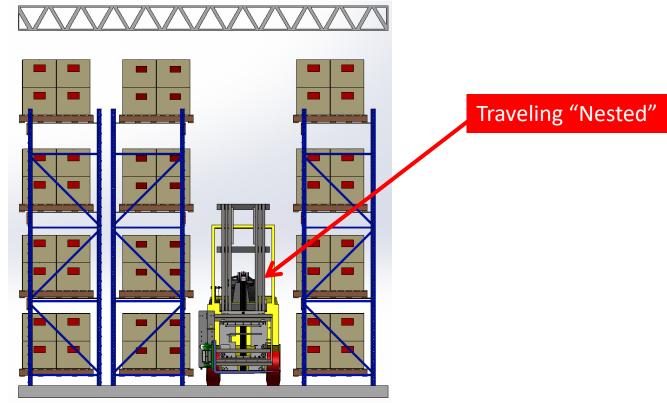


Traveling "Nested"



How to Store and Retrieve: The following is a step-by-step demonstration of how to store and retrieve a load at low levels and then at high levels.

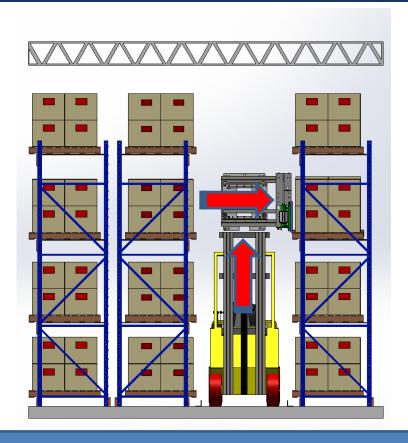
- 1. Center the truck the best you can before entering the aisle way.
- 2. Travel forward consciously down the aisle to your desired location.





How to Store and Retrieve: Continued.

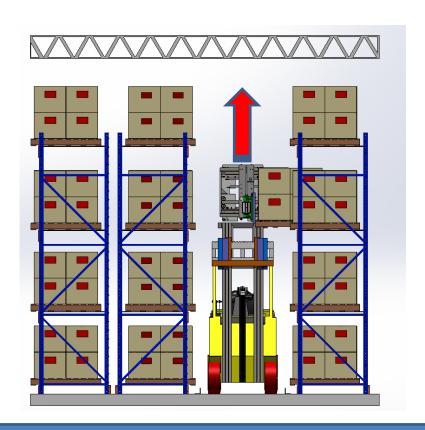
- 3. Lift the mast to align the forks with the opening of your load pallet.
- 4. Pull the Side-Shift/Traverse lever to move the forks toward the load and soundly underneath the pallet.





How to Store and Retrieve: Continued.

5. Lift the load vertically and with enough height to get the pallet's front and rear off the racking surface.

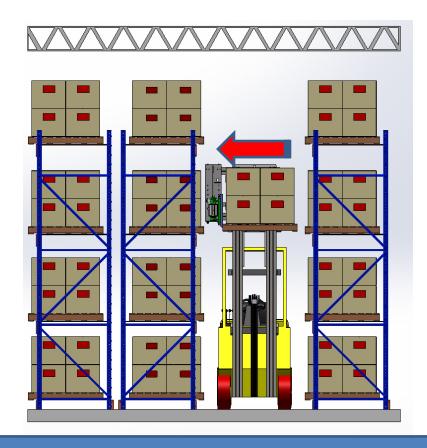




How to Store and Retrieve: Continued.

6. Traverse the load out of the rack. Continue pulling the Side-Shift/Traverse lever until the boom movement, and Intermediate frame movement stops. This should center the turret and load\* equally on the truck's center line.

\*48 x 48 Load

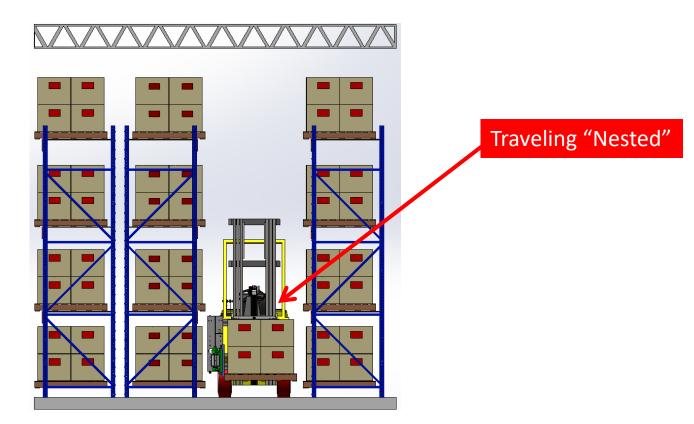




How to Store and Retrieve: Continued.

7. Lower the unit to around 12" near ground level. Now you should be able to drive forward or backward out of the aisle.

\*48 x 48 Load





#### How to do it.

How to Store and Retrieve: If you are putting a load away, the step-by-step procedure is the same, yet in the reverse order.





## **Training Procedures**

EXPERIENCE: There are five experience levels to be mastered before being released into the full time operation.

- 1. Non-Production. (Practice)
- 2. Aisles unloaded.
- 3. Narrow aisles operating at progressive levels.
- 4. Narrow aisle mock full production.
- 5. When the operator has attained proficiency within the rack area, the operator can now use the truck and attachment.





## PART 1 QF 3 COMPLETED

Part 1 – Classroom - Completed

Part 2 – Hands on Supervised Review

Part 3 — Practice/Training

## MOVE ON TO PART 2

