

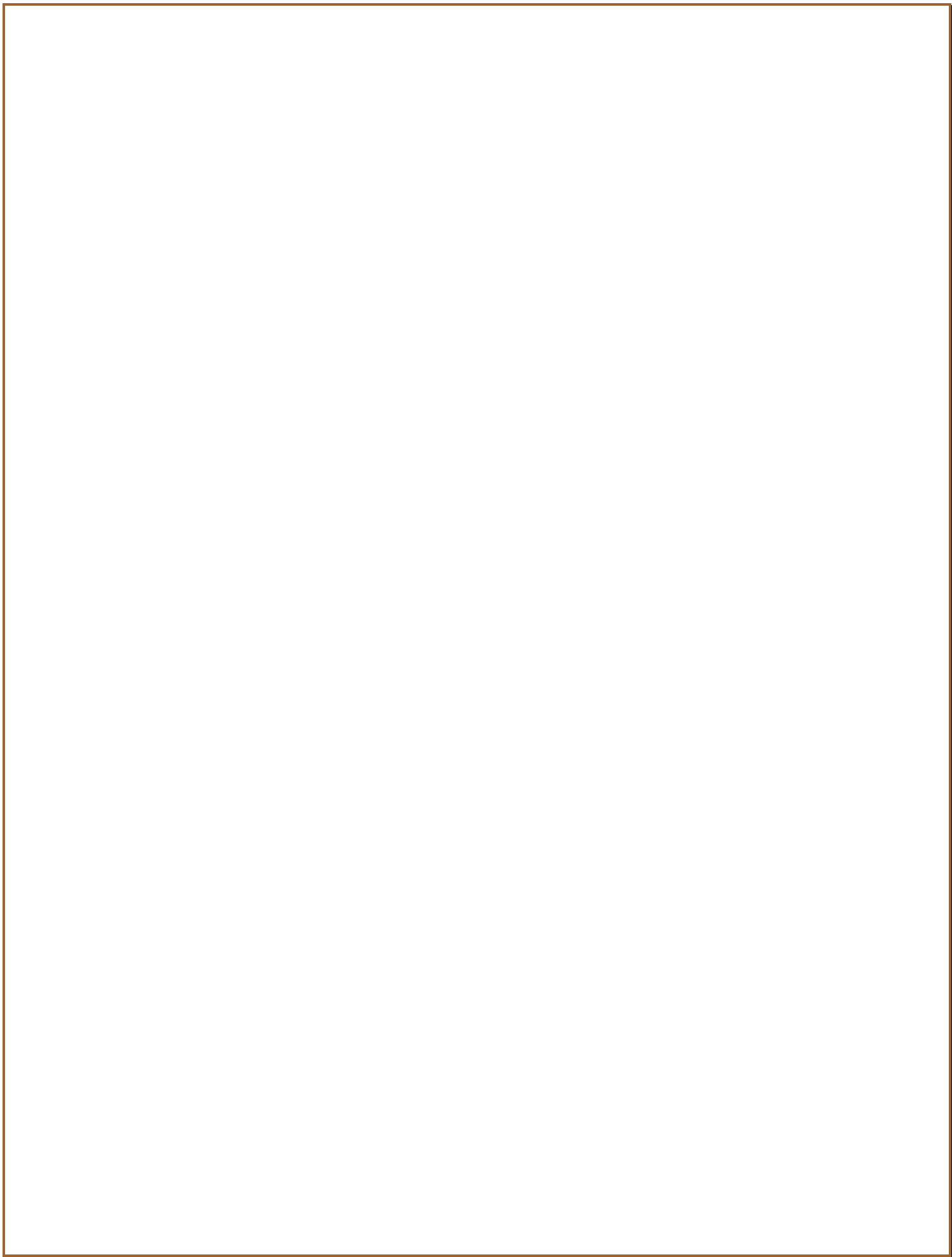


**Manitowoc Tool & Manufacturing, LLC**

**MATERIAL HANDLER TRAINING  
HANDBOOK**

*Created: 08/13/2020*

*Revised:*



# **Material Handler Training Handbook (ver 2.3)**

## **Plant Information: (MAP! Label Fig 1)**

Presses, emergency exits, PPE stations and egress lanes are clearly marked on the included map. Press numbering follows the order presses were installed, and appear as "100-XX". They are often referred to by simply the last two digits (ie: "press 11"). See Fig 1

A more detailed (and larger) map is posted in the receiving office, showing where different dunnage types and different customers' products should be located. This is not a hard rule, as we will sometimes run out of room in a designated area (or have to use an area from something different).

## **Lift Specifics**

**Inspection Checklist (EDIT TO REFLECT NEW LIFTS W/COMPUTERIZED CHECKLIST)** - every lift will have a clipboard with an inspection checklist on it. These should be filled out for every shift that lift is used. If multiple people are using the same lift in the same shift, only the first person needs to fill the checklist out. If you are using more than one lift, make sure that the checklist is filled out on each! Checklists are collected and replaced on Sunday night.

### **Lifts with electronic login – To “turn on”**

1. Switch ON the keypad by holding the red button on the right side of the keypad.
2. Use fob to login to keypad unit
3. If starting the first time this shift, do the inspection – some items are after turning on.
4. Put on seatbelt
5. To turn on, press and hold the green start button.
6. The forklift should be ready to go

### **To “turn off”**

1. Press the red stop button on the keypad
2. Press logout on F2
3. Yes
4. If the truck will sit for a while also shutdown

These lifts also have a collision sensor: if it detects a collision, the lift will shut down. You will need to find a supervisor to restart the lift, who will also document any damages.

**Safe driving** - safe driving is a must. Be aware of your surroundings at all times, and extremely mindful of distracted workers.

You are expected to sound your horn when approaching intersections or workers, or when passing behind another lift. This helps others be aware of your presence, and cuts down on accidents.

You will also find "stop" signs on the floor at several intersections. You must bring your forklift to a complete stop at these locations, as they are in areas with high foot traffic and no visibility.

Keep your speed down (5 mph), and your load as low as possible. Given space constraints, it is sometimes necessary to be moving with a load elevated in the air (such as taking a die to the die shop): be extremely careful in these situations, and cut your speed to a crawl.

**Accident Procedure** - if an accident should occur, inform the shift foreman immediately! If there is damage to plant property (ie: you hit a rack), document it for maintenance.

**Capacity by lift** - every lift has it's max capacity listed on it's information tag. However, as a simple cheat, here's a quick breakdown of the capacities for each (listed by asset number):

- Yellow lift (979-10): 25" - 4400 lbs
- Crown standup (979-14): 24" - 2450 lbs
- Receiving Nissan (979-16): 24" - 6575 lbs
- Titan (979-20): 24" - 8165 lbs
- Die shop Cat standup (979-21): 24" - 4700 lbs
- Pressroom Nissan (979-22): 24" - 4700 lbs
- Pressroom Cat standup (979-23):
- Yellow Doosan electrics (979-24, 979-25): 24" - 4400 lbs
- Aislemaster (979-26): 24" - 4400 lbs
- Large Toyota (979-27) -
- Small Toyota (979-28) -
- Shipping Nissan Electric (979-29) -
- Orange Doosans (979-32, 979-33, 979-34) -

## Work Orders:

Almost all of the information you need can be found on the work order. See fig 2 for a sample. The part number is highlighted in yellow, the die location in green, coil number in blue, and the scrap type in red.

Fig 2

**Manitowoc Tool and Manufacturing, LLC**  
Work Order Traveller  
WORK ORDER ID: WO-038955/1

3/9/2020 6:51 AM

Order ID: \_\_\_\_\_ Customer: \_\_\_\_\_ Ship To: \_\_\_\_\_  
Date: \_\_\_\_\_  
Ship Via: \_\_\_\_\_  
Cust PO#: \_\_\_\_\_  
Phone: \_\_\_\_\_  
FAX: \_\_\_\_\_  
Part ID: \_\_\_\_\_

Work Order ID	Part ID	Release	WantDate	Start Date	Finish Date	Qty	Drawing ID/Rev
WO-038955/1	68358	03/09/2020	03/31/2020			51,500.00	

Shop Resources	SubID/Seq#	End Qty	Start Qty	Setup Hrs	Run Start Hrs	Finish Date	Drawing ID/Rev
Rail Top Rear 3B GP 19							A

100-18 0/19 51,500.00 51,500.00 2.00 85.83

Setup & Run Production -  
Pack parts in qty's of 1,600 per gaylord; if using hold & fold pack in qty's of 1,750.

Run Rate PCS/HR: 600

Master Sample Location: Board 2(J)  
Inspection Plan ID: 0001536 First & Last Piece

USE AMERICO 580 lubricant

Lube Type:	Americo 580 Lube
Part ID/Sub ID	Piece# Date Req'd Unit Of Measur Qty Req'd Qty Due Issue
MMC000445	10 3/9/2020 LBS 70,555.00 70,555.00
Coil, 18Ga X 3.600	
Progression:28.500 Shut Height: FEED LINE:Scrap = Steel Tooling ID:.047	
Location:3.600 Right to Left: Front To Back:18 Material Code:Crs Tonnage:Cold Rolled	
Commercial Steel Type B ASTM A1008	
Material: Cold Rolled Commercial Steel Type B ASTM A1008 Scrap Type: Scrap = Steel	
FGT0036-01	20 3/9/2020 EA 0.00 0.00
Progressive Complete	
Progression:VARIOUS Shut Height: FEED LINE: Tooling ID: Location:S-F0-16 Right	
to Left: Front To Back: Material Code:MMC000445 Tonnage:	

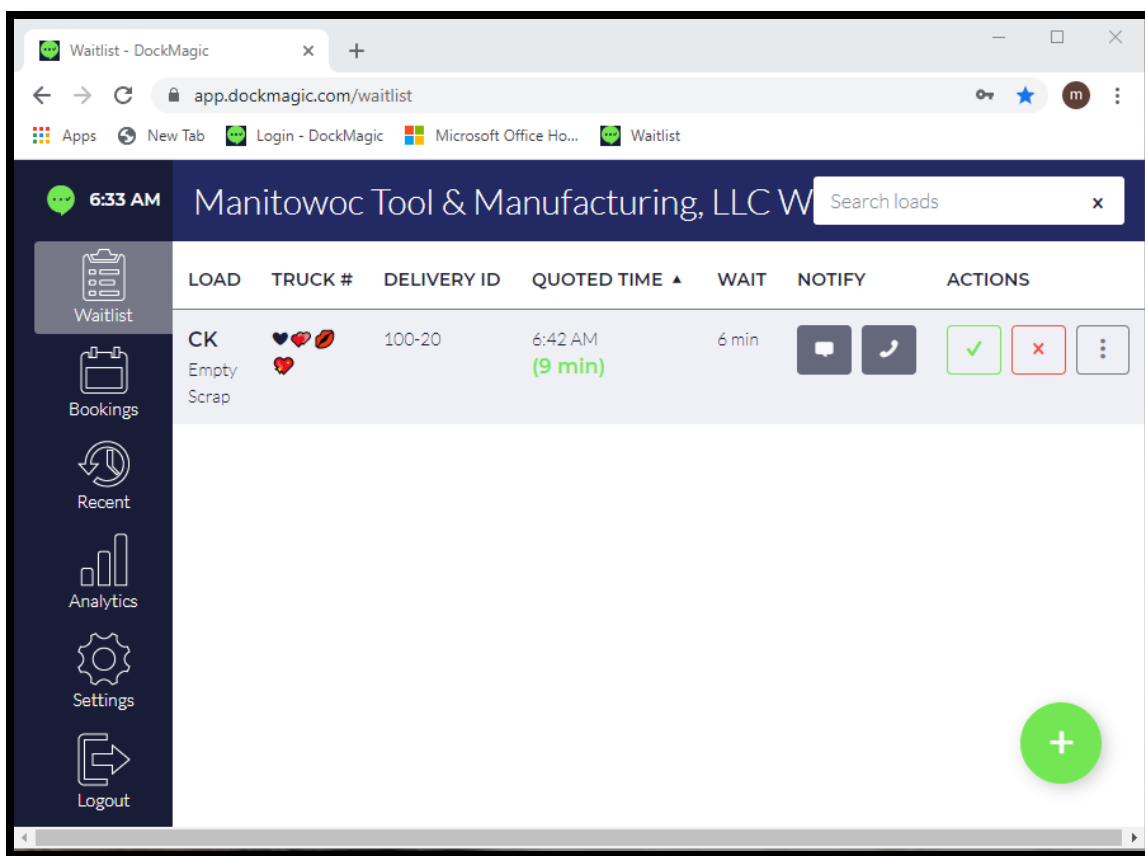
You may also find special instructions (such as packaging) in some work orders. If you are unfamiliar with a job, make sure to look over the work order for any information that you need.

## Computer

**Clocking In** - the clock in procedure is simple. Enter your four digit employee number, press "enter". Then press 4 (for "indirect"), type "MH-INT", and press "enter" again. Clocking out, enter your employee number again, then press 7 (for "clock out").

**Wait List** (see fig 3) - the pressroom material handlers run on the waitlist: press operators post what they need, where, and how soon. Postings are handled in order: do NOT mark a task completed until it is. When taking care of a task, hit the edit button (listed under "actions", it looks like a pen), and enter your initials in the field marked "carrier".

**Fig 3**



**Visual** - the system we use here at MTM is called "Visual". When you first get on your lift, open Visual and log in (IT will give you a login and password). Go to the "Inventory" menu, and select "Inventory Transaction Entry": this is the window you will use most often.

- **Original Inventory** (see fig 4): this is what you will use when taking completed parts from the presses. Enter the work order number (WO-012345), press "tab", enter 1 (batch is always 1), tab to quantity. Every work order will autofill the location: make sure that the listed location is where you are putting the parts, or that you tab to location and enter the location you put them. Remember to hit "Save" after entering the data.

**Fig 4**

If a press is running component parts that are going straight to the next operation, they still need to be inventoried! The location used is "WC" (work center).

You may get an error message when you hit save, that reads "Work order closed". If this happens, click proceed and make note of part number, work order, location, and quantity. Inform the material planner of this information.

**Transfers** (see fig 5): you will use this procedure when transferring parts or material from one location to another. Go to the "edit" menu in your inventory window, and select "Transfer Inventory between locations". Enter the part number, tab to quantity. Now on your screen, press the small button next to "from" ([...]): this will bring up a list of every location that part has ever been located. Press the "search" button, tab to "quantity" and enter "<>0": this will filter out empty locations. Double click on the location you are pulling from, tab to enter the location you are taking the parts or material to (plant number is always "002").

**Fig 5**

Inventory Transfers

File Edit Options Help

Transaction Date 3/12/2020

Part ID ... MMC0000418

Part Description ... Coil, 20Ga X 10.560

Specifications

Quantity

Pcs Length Width Height

	Warehouse ID	Location ID	Type	Status
From	...			
To	...			

Save Cancel Close Inventory Display

You may get an error message reading "part not assigned to location XX. Assign?". Hit enter, then hit enter again.



This same procedure is used to move parts from a location to the work center (WC), or to NCM. If moving parts to NCM, remember that they need an NCM tag (see fig 6), and a note should be left for the material planner to change them to "unavailable". Make sure any tags are with the product (this means both receiving and vendor tags for coils), and that the NCM tag is completely filled out. NCM coils also need a sample, and example bad part.

**Fig 6**

**Nonconforming Product**

Work Order # 38678 Part # Mmc 511

Quantity 227 Defect Bent Edge

Date 2-21-2020 Employee ID 5808 (12)

Disposition \_\_\_\_\_

If finished product is located in the WIP aisle (usually due to a lack of space), it still needs to be inventoried and located. Any such parts taken from WIP to a press should be transferred accordingly.

**Auto issue locations** - Some parts are kept in locations that they auto-issue from. These do not need to be transferred out, as the system will automatically withdraw the required amount when the press operator reports their parts in. These locations and parts are:

W-00: 04-29515-000, 04-29198-000, 04-29244-000, 04-27802-000

W-E0-11: 04-29464-000, 04-09084-000

W-E0-12: 04 29465-000

W-01: 24 090 05, 24 090 47

W-A0-08: 32 090 07

W-A0-09 32 090 08

W-A0-10: 32 090 09

W-A0-11: 32 090 12

W-A0-12: A17-14603-000

W-A0-13: A17-14603-001

W-A0-14: 24 090 13

W-A0-15: 20 090 08

W-A0-16: 20 090 09

W-K1-07: FHS-0420-12, FHS-0420-20

U-A0-00: CLS-832-2, 0L4445IN-AL-BLANK, 0L4445IN-ST-BLANK, 0L4449EX-AL-BLANK, 0L4449EX-ST-BLANK, CDFAL081-820, CDFMS081-111, AELA-420-165, FH-173-8

If you bring parts that auto issue from a different location (ie: bringing a crate of 32 090 12s from location U-B2-20), transfer them from where you're taking them to their auto issue location (NOT to WC).

### Product Handling

You will see two basic tag types: "Finished Goods" and "Work in Progress". How you handle each is different. Never take a crate or pallet from a press without a tag on it!

- **Finished Goods:** this means pretty much what it says, the part is complete. Some of the parts we make go straight to the Finished Goods aisle, some get inventoried. To differentiate between them, check the production schedule screen: finished goods will have an [FG] on their entry.

Any parts being put into inventory need to be marked with your initials in the rectangular box on the tag (see Fig 7). Use a black marker for this (pen lines aren't as visible)

**Fig 7**

Finished Part Label  
Manitowoc Tool and Manufacturing, LLC

PART: 40409700

Shelf Mid/Catch Pan C2 4B GP 17

QTY: 34

Date: 03/18/2020 11.21.02 PM Employee ID: 5607

WO-038948/1-0

- **Work in Progress:** these are parts that have further steps to go. They come in three forms: basic WIP (which gets taken to the WIP aisle, [fig 7A](#)), washer (next process 89, and goes to the washer area, [fig 7B](#)), and Outside Services (marked in the lower right of the tag with OUTSIDE SE, and goes to the outside services area, across from the production office, [fig 7C](#)). Regardless of which type it is, DO NOT INVENTORY WIP PARTS   ↪

**Fig 7A**



**In Process Part Label**  
Manitowoc Tool and Manufacturing, LLC

PART: 1337802  
Bracket, Back

QTY: 0

Date: 01/22/2020 10:58:39 AM Employee ID: 5012

WO-036632/1-0

Next Operation Step: 20 Next Resource ID: 100-07

**Fig 7B**



**In Process Part Label**  
Manitowoc Tool and Manufacturing, LLC

PART: 1087.397.014  
Retaining Clip

QTY: 0

Date: 01/22/2020 10:59:18 AM Employee ID: 5012

WO-038398/1-0

Next Operation Step: 89 Next Resource ID: 890-01

**Fig 7C**



**In Process Part Label**  
Manitowoc Tool and Manufacturing, LLC

PART: 1337802  
Bracket, Back

QTY: 0

Date: 01/22/2020 10:58:44 AM Employee ID: 5012


WO-036632/1-0

Next Operation Step: 900 Next Resource ID: OUTSIDE\_SE


**Partial Tags** – On some orders, you may end up with a partial crate or pallet. These need to be inventoried as normal, but shipping will put a blue tag on it (Fig 8), with instructions for handling the next time the job is run. When you see one of these tags at a press, all you need to do is to transfer the quantity on the original tag from WC to FG.

Fig 8


**FOLLOW THESE STEPS FOR THIS SKID:**

 **SHIPPING:**


- ☐ TRANSFER PARTIAL QTY TO WC

 **OPERATOR:**

- ☐ **DO NOT REMOVE ANY FG LABELS**
- ☐ FILL TO WO SPECIFIED QTY
- ☐ ATTACH NEW FG LABEL WITH **TOTAL** QUANTITY NEXT TO EXISTING LABEL

 **MATERIAL HANDLER:**

- ☐ **DO NOT INVENTORY ANY PARTS**
- ☐ TRANSFER QTY ON ORIGINAL FG LABEL FROM WC TO FG

 **SHIPPING:**

- ☐ INVENTORY DIFFERENCE OF NEW FG LABEL QTY AND ORIGINAL FG LABEL QTY
- ☐ REMOVE OLD FG LABELS
- ☐ REMOVE INSTRUCTION SHEET

**Wrapper** - Some parts will need to be wrapped before going to shipping. Procedure is simple: center the pallet on the turntable, press the "film advance" button and pull out a length of wrapping film, hook film to the product, and press "Start". You shouldn't be adjusting any of the settings on the wrapper.

**Banders** - Some parts need to be banded for shipping. We use 2 types of banders: nylon and steel.

With the nylon bander, you simply wrap a length of banding around the product, and clip the bander to the banding. Press the rectangular button to tighten, then the round button to seal and cut the banding. The bander will beep once complete.

For the steel bander, we use metal clips. Feed the banding through the clip, then wrap the banding around the product. Feed the free end back through the clip, and bend the banding. Now, use the ratchet to tighten, then crimp the clip. Cut the banding with a tin snips.

## **Dunnage**

**Common Use Crates** - we have several crate types used throughout the plant. The most common are Kohler crates (large and small), pressboard crates, wire baskets, MTM crates (large and small), MTM totes, and gaylords. Refer to the work order to see what type of crate is needed (and what substitutions are allowed). If you are unsure (or the work order doesn't specify), check with the shift foreman.

**Customer Supplied Crates & Pallets** - several of our customers supply crates or pallets of their specification for packing their parts. These include Weber and Briggs crates, Orion pallets, and several others. Again, refer to the work order to see what is needed. One note: unless absolutely necessary, do NOT use customer supplied crates or pallets for a different customer's order.

**Pallet Sizes/Color Coding** - pallets are color coded by a stripe at the corners to denote size. The colors and corresponding sizes are as follows:

40 x 48: Blue

42 x 48: Red

47 x 52 (Orion): Black

55 x 42: Brown

74 x 40: Yellow

48 x 48: Orange

50 x 48 (5 runner): Green

78 x 44: Grey

85 x 40: White

**Speciality Packing** - some parts will require specialty packing materials. These can be found listed on the work order, and will mostly be found in the top racks in R bay. Refer to the map on your lift for help finding what you need.

## Scrap

**Types:** you will be dealing with several types of scrap. The most common are steel, aluminum, and galvanized: These are denoted on the work order: steel is listed as either "CRS" or "HRS" (hot rolled steel or cold rolled steel). Aluminum is listed as such (we run mostly 3003 or 5052), and galvanized has several designations (galvanized, aluminized, galvaneal, etc). There should be a magnet visible on the press to tell you what scrap you have. If unsure, check the work order.

The luggers for scrap are located in cold storage (through door 6a). 3003 aluminum goes in the lugger to the left as you enter the scrap area, galvanized to the right, 5052 aluminum second to the right (accessed by going out through door 6, and back in through door 7), and steel to the far right (accessed via door 9a). Should a lugger fill, we do have an overflow lugger outside (near the trash dumpsters). DO NOT MIX SCRAP TYPES

There are four other types of scrap: "special", wood, rubber and die shop. Wood is self explanatory. Special consists of any material other than the 4 listed, and is put into gaylords for loading on a scrap truck. Rubber is taken out via door 11, and dumped into the trash dumpsters. Die shop is dumped into small dumpsters out back, accessed through doors 6a and 6.

We are also responsible for the banding hoppers. These are treated as galvanized, and are located in various parts of the plant, and are labeled as "STEEL BANDING ONLY".

**Scrap Trailers:** there are two scrap trailers on the docks. One is for wood, one is for special material. In both cases, **neatness counts:** try to make sure that you are placing pallet stacks or gaylords in neatly, to maximize space.

When loading the metal scrap trailer, you must fill out the packing list (see fig 9). This is located on a clipboard by the dock. It lists weight, scrap type (check work order), container, your initials, and the date. As always, be neat!

Once the trailer is full, photocopy the BoL. The copy gets stapled to the last gaylord on the trailer, the original goes on the material lead's desk.

Fig 9

**Dump Bins:** most scrap goes into dump bins at the press. These are the blue bins located behind press 14.

Load	Weight	Material	Container	Trailer #	MH Initials	Date
1	729	Painted Alum	Gaylord	7948	MB	2-21
2	1440	Painted Alum	Gaylord	7948	MB	2-21
3	1442	Painted Alum	Gaylord	7948	MB	2-21
4	911	Painted Alum	Gaylord	7948	MB	2-21
5	1198	6061 Aluminum	Gaylord	7948	MB	2-21
6	1639	Painted Alum	Gaylord	7948	MB	2-22
7	791	6061 Aluminum	Gaylord	7948	WH	23 FEB
8	1095	Aluminum (No ID)	Gaylord	7948	WH	23 FEB
9	448	Welding Scrap	Gaylord	7948	WH	23 FEB
10	1226	6061 Aluminum	Gaylord	7948	WH	23 FEB
11	1018	6061 Aluminum	Gaylord	7948	WH	23 FEB
12	251	6061 Aluminum	Gaylord	7948	WH	23 FEB
13	1049	Painted Aluminum	Gaylord	7948	WH	23 FEB
14	1598	Painted Aluminum	Gaylord	7948	WH	23 FEB
15	257	Painted Aluminum	Gaylord	7948	WH	23 FEB
16	263	GALVANIZED (3)	Gaylord	7948	WH	23 FEB
17	343	GALVANIZED (3)	Gaylord	7948	WH	23 FEB
18	1314	Painted Aluminum	Gaylord	7948	WH	23 FEB
19	1446	Painted Aluminum	Gaylord	7948	WH	24 FEB
20	322	Random Scrap	Gaylord	7948	WH	24 FEB
21		+ 2 BAD HOPPERS				
22						
23						
24						
25						
26						

When a call comes for scrap removal, the procedure is simple. Pick up the bin with your lift, and take it to the scrap area. Hook the safety chain to your backstop, unlatch the safety lock (if present), lift the bin up to the lugger, and tilt it forward. Now lift the latch handle: the bucket of the bin should tip the scrap into the lugger. If the weight distribution is off, you may need to use a prybar to tip it (or radio for a partner to come and use their lift). Reverse the procedure, and take the now empty bin back to the press.

If a lugger is full, use the overflow lugger, or set the hopper aside and grab an empty. There is a set of magnets to denote what scrap type by door 6: remember to swap the magnet to let others know what's in there!

**Cardboard:** cardboard is placed into the blue recycling dump bins, and is taken out door 12 to be put into the baler. You will need the key to the baler (located on a hook next to door 12).

Procedure is to turn on the baler with the key, then pull the large button: this retracts the ram. Once the ram is fully retracted, begin hand loading the cardboard into the hopper. Once the hopper is full, pull the switch again to activate the ram. Repeat until the dump bin is empty. When the last hopper full is being crushed, push the switch when the ram is closed (this keeps things drier in wet conditions, and prevents other things from getting in). Do not just dump the cardboard into the hopper like it's a load of scrap: this will jam up the baler, and someone else will have to come out and fix it. For your own safety, do not climb into the hopper area.

## Coils

**Locating:** you locate coils using the same procedure as outlined under transfers. Open the "transfer inventory between locations" window, and enter the coil number (this will usually be either "MMC0000123" or "MMCCS00123"), and hit tab. Now hit the small button next to "From" ([...]): this will show you every location that coil has been stored in. Click the "search" button, tab to "quantity", and enter "<>0" to filter out empty areas.

Coils for some jobs have an added identifier: their heat code. You will find this on the supplier tag, listed as "heat/process" or "Lot/Heat". You always want to use up all of one heat code before bringing a different one to a press. Make sure to inform the press operator when you change heat numbers.



**Transfer:** once you have located the coil, remember to transfer it in the system. Enter the quantity on the transfer screen, double click the location you are taking it from, and enter "002" and "WC" for where it's going (that denotes the work center). Do this before you take the coil to the press. Remember to make sure you have both tags with the coil (**Receiving tag, fig 10A** and **vendor tag, fig 10B**)

**Fig 10A**



MANITOWOC TOOL & MANUFACTURING, LLC

**Receiving Tag**

37172

Material PO # \_\_\_\_\_

S/O # \_\_\_\_\_

Material ID **MMC0000287**

Quantity **4260**

Date 2/10/20 Rec. by 5696

**Fig 10B**



MANITOWOC TOOL

Dalco Metals, Inc \* Watworth, WI \* 53184 \* (262)275-6175

(P) PRODUCT ID/PART: MMC0000287

(V) SUPPLIER NO: Dalco

(K) CSTM P/O NO: 37172 L2

4-(TT) HEAT/PROCESS NO: 957581

5-(Q) ACTUAL WT: 4260

6-(10) THEO. WT:

7-(R) PIECES: 1

8-(S) SERIAL NO: S979755

9-SIZE  
18ga CR A1008 "DS-B"  
.0480 x 14.000 x COIL

10-SPECIAL DATA  
**S979755**

SD# 4206610 1 LP1598  
PORK LIFT REAR  
SLT / A/P / Z 02/07/20

*A.V.*

Failing to transfer a coil in the system causes the single biggest headache for your fellow material handlers, as they will end up stuck looking for coils that have already been used (and thus wasting time) or even having to pull a job due to lack of coil.



Many of our coils are stored flat, and therefore need to be flipped upright. We use two methods:

**Coil tipper:** the coil tipper is the first method: it is just a hydraulic tool that flips a coil 90°. Pay attention to the size of the coil (width and diameter): any coil that is too thin and/or too large can cause problems (and even damage the tipper). Maximum capacity for the coil tipper is 20,000 lbs.

Procedure is very straight forward: place the coil on the tray. Cut any banding holding the coil to its pallet, and place the restraining bars. Turn on the power, and flip the switch to "Up". Once the tipper stops moving, flip the restraining bars out of the way and pick the coil with your lift. To repalletize, simply reverse the procedure. If the coil is small, or there's only one on the pallet, stack more pallets under it on the tipper, to bring it out further.

If there are multiple coils on the pallet, take them all to the press. This keeps the tipper free for the next person.

**Hoist:** the second method of tipping a coil is to use one of the hoists. Presses 1, 3, 6, 8 and 18 all have overhead hoists in place already (and the press operators will deal with lifting the coils themselves).

If another press' coil needs the use of a hoist (tipper is down, coil is too narrow or too big), procedure is easy. Place the coil under the hoist. Cut any banding that is holding the coil to the pallet. Slip the chain or strap through the center of the coil, and between the coil and the pallet (you may need to slightly lift the coil with your forklift). Slip the ends of the chain or strap through the hook of the hoist, and raise the hoist. Make sure to stand away from the coil's direction of travel to avoid injury! Once the coil is upright and lowered almost to the ground, make sure it is "aimed" properly (it should feed over to the left). Now set it down to pick up with your lift. One note: some coils are too narrow to stand on their own, and will need to be "picked" from the chain.

**\*If using this method, remember to place scrap rubber between the coil and the strap or chain. This is both to protect the coil from damage, and the strap (if using a nylon strap).\***

If you have multiple coils on one pallet, the tags go with the first coil used. Please remember to write the coil number on the rest of the coils on that skid for identification purposes.

**Loading:** loading the coils into the cradle at the press is fairly self-explanatory. You just place the coil on the cradle (make sure it's aimed correctly), and place its tags on the clipboard (throw away the old tags).

One thing to keep in mind is very narrow coils: these will need upright supports put in place, to keep the coil from falling over. With the back uprights in place, drive forward with the coil raised high enough

that you can see the cradle. Go slow, and stop once you see the coil bump the uprights. Park your lift, and place the front uprights: now you can slowly lower the coil onto the cradle.

**Returns:** If a job is completed without finishing the coil out, the remainder will need to be returned to inventory. To do this, remove the coil from the cradle (don't forget to grab the tags), and head back to receiving. Place the coil on the scale to get the weight, and open up the inventory transfer window. Transfer from WC to whatever location you are putting the coil into.

You will also have to print a new tag. To do this, go to the receiving computer and open the Label Matrix program, located in the taskbar at the bottom of the screen. Now go to the bar at the top of the screen, and hit the "print" button, followed by "ok". This brings up the window for entering tag information. Enter everything as it appears on the old receiving tag, changing the quantity and date, and press enter. Close that window, and hit "no" when asked if you would like to change counters and keyboard inputs. Then minimize the LM window (failure to do this can result in the printer spitting out blank tags until it runs out). Now attach the new tag to the coil, along with the small manufacturer's tag, and put the coil away

Remember when returning a coil to update the coil board in the receiving office. Write the coil number under "cleans", and erase it from the press list.

Flat stock (MMF0000XXX) can present a different issue: you can't always fit it on the scale. You can check the supplier tag for the original weight and piece count, and divide the weight by the pieces to get the weight of each individual piece (then multiply by however many pieces). Sometimes, you may have a partial piece: for those instances, there's a handy equation to figure out the weight:

Thickness X Width X Length X Density

Densities are as follows: Steel (including galvanized), .284; Aluminum, .098; Copper (and brass), .324

Once you have the total weight, continue as above for coil returns.

**Cleans:** this refers to verifying the amount of a coil left, and it's locations. From the transfer screen, you print the list of locations for a given coil, and physically check to see if the coil is there, and in the listed amounts. Bring a calculator with you. Note any discrepancy, and leave the sheet on the desk of the material planner for correction in the system

If you notice while doing a return or clean that the work center is negative, this means that coils have been brought to the press without transferring. Go verify the amounts by location, and transfer what has been moved.

## Dies

**Locating:** die location should be listed on the work order. If it is not, you can look it up on your computer.

Go to the Visual window. Click "Inventory", and select "Material Planning Window". Here, you can enter the part number, then hit tab: this will bring up all the info for that part. Now select the "Info" drop menu, go down to "Subordinate Parts", and click on "Use Engineering Master": a smaller window will open, showing the die (FGT0123-01) and coil (MMC0000123). Double click on the die: the third column of entries, second entry down, will give you the location (see fig 11)

[illegible]

**Transport:** always be extra careful when transporting dies, as they can be easy to damage. Keep your speed to a crawl, and be sure to keep checking the sides so you aren't clipping anything.

**Placement:** whoever is doing the actual setup should be present to help guide you in. Make sure before putting a die in a press, the bottom surfaces have been wiped off to remove any slugs. Do not place a die on a pressbed that hasn't been wiped down, and lower the die into place slowly.

**Die Shop:** dies go into and out of the die shop on a regular basis. If you need to bring a die to the die shop while in the middle of a job, remember to bring the work order with.

If pulling a die out of the die shop to put away, and it has a work order on it, take the work order to your shift foreman

**Return:** to minimize headaches for your partners, do your best to return dies to their designated location. If a die you are pulling doesn't have a location, place it in the area designated for homeless dies (currently by the production office) and leave a note on the material lead's desk.

## **Trucks**

**Dock plate & lock:** every dock in the plant is equipped with a dockplate and lock. Do not enter a trailer with a lift without the dockplate in place, and the trailer either locked or the wheels chocked.

We have two types of deck plates: most are lighter duty, and are operated with a chain pull. Simply pull up the chain, and the plate will raise (and extend). Step on it to lower it into place. The three docks in receiving have heavier duty deckplates, and are operated by pressing a button to raise them via hydraulics. Press and hold the button until the extension comes out, then release to lower.

Both retract in a similar manner. With the hydraulics, press and hold the button to raise the plate: as it lowers, the extension will retract. For the others, pull the chain to raise the plate, push down on the edge to drop the extension, then step on the plate again to lower.

The locks are simple push-button operation. Press one button to lock, the other to release. The light will change from red to green when locked.

Sometimes, usually due to the trailer being misaligned, the lock won't function properly: instead of getting a green light, you will have both lights flashing. If that happens, hit all three buttons at once. For this reason, you want to make sure that the trailer is locked before the driver leaves: if we have a misaligned trailer, there's nothing we can do about it until the next driver arrives (which wastes a lot of time)

**Generac:** one of our biggest customers is Generac, and responsibility for loading and unloading their trucks is on the pressroom material handlers.

- **Loading procedure:** this is simple, but pay attention to detail!

- **Paperwork:** every truck going out will have a clipboard with that load's paperwork and labels, located on a hook by the U bay docks. Trucks currently go to one of two different plants: Jefferson and Whitewater. Verify that the paperwork in your hand is for the correct truck.

The cover sheet is your bible (see fig 12): verify that all the numbers match before loading (mistakes can happen). Also double check the count of the shipping labels (there should be two for every crate and pallet, plus the master label for each part number on that load). Place two shipping labels on each crate or pallet, usually on the product label. The master label goes on the last crate or pallet of each part type you load, and the shipping list on the very last crate or pallet loaded. Once the load is complete, fill out the paperwork: write in the trailer number under vehicle ID, and initial in the bottom right corner. You will do this on three different pages.

Fig 12

00-054100

Generac WHITEWATER Shipment: Truck 1						3am p/u	2/05/20
Part #	Quantity	Pcs per Crate	X	Crate #	Work Order	Container Type	
0L57420ST0R	3	726	238	33	22	038362	Stackable
0L4445AAL0R	1	756	237	36	21	038424	Stackable
0L4449AAL0R	2	756	238	36	21	038354	Stackable
0L4445AGN0R	0	0	36	0	0	029756	Stackable
0L4449AGN0R	0	0	36	0	0	037015	Stackable
10000007041	0	0	36	0	0	037701	Stackable
10000020521	0	0	20	0	0	038338	Stackable
0K34360GN0R	4	60	289	30	2	038115	Stackable
0K3683	0	0	350	0	0	026830	Stackable
0K47420ST0R	0	0	200	0	0	037507	Stackable
0K5214AGN0R	0	0	20	0	0	031217	Stackable
0K5214BGN0R	0	0	20	0	0	038214	Stackable
0K5216AGN0R	0	0	200	0	0	036011	Stackable
0K5216BGN0R	0	0	200	0	0	037438	Stackable
Total crates			58	68			

PL-100

1935A#  
20,463#

You may have to send a truck short. On first shift, verify with the office before doing this. On off shifts, go by the scheduled release time: whatever we have by that point is what gets sent. If that happens, modify the paperwork by crossing out the total count on that part's sheet, and writing in the actual total, then initial the change. This will be done in three places: our copy, the customer copy, and the shipping list. Also correct the total count for the truck.

- **Loading:** this is simple and straightforward. Load by part number, three crates to a stack, up to twenty-two stacks total (If there are no pallets). All stacks should be three high until the end of the load. Do not stack pallets.

Whitewater trucks are loaded crates first, then pallets (817s, then 819s). Jefferson trucks are somewhat reversed: pallets first (again, 817s then 819s), then crates.

Once the load is finished, check for empty screw protector totes or barrels: these need to be sent back (totes to Whitewater, barrels to Jefferson). Now retract the deck plate, close the door, unlock the trailer and hang up the completed paperwork.

**Dunnage:** every load taken is swapped with another trailer: these will usually have return dunnage. This comes in a few different types: lids, bases (standard and short), pallets, screw protectors, and "not ours".

- Lids and bases: these are basically the same plastic piece for both. The only difference is that bases have plywood sides, folded down for easier storage. They come from Generac mixed: when offloading, you have to separate them before putting them away. Lids go in one stack, standard bases in another, and short bases in a third. Short bases are only used for 825s. All these items are stored in U-03

If (and it has happened) we run out of either lids or bases, they can be swapped: you can remove the plywood from a base to make a lid, or grab some of the extra plywood we have to turn a lid into a base.

- Pallets: these are mostly in two sizes (blue and/or red). verify what sizes are on the load, and put them away in the appropriate stacks.

- Screw protectors: there should be at least one tote of screw protectors on every dunnage truck. Screw protectors in totes from Whitewater go to roof structures, the ones in barrels from Jefferson go to 817s. Always make sure empty totes or barrels are sent back to the correct plant!

- "Not ours": this is fairly self-explanatory. Sometimes, the material handlers at Generac load another company's dunnage mixed in with ours. If you encounter anything that you don't recognize, set it aside: it will be sent back on the next truck with room for it.

# Acknowledgement



I have received, reviewed, been trained on, and understand Manitowoc Tool & Manufacturing, LLC's Material Handler Training Handbook.

\_\_\_\_\_ (printed name)

\_\_\_\_\_ (signature)

\_\_\_\_\_ (date)