Progress Rail
A Caterpillar Company

Supplier Packaging & Shipping Manual

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Winston Salem, NC 27107

PROGRESS RAIL Distribution Center 1052
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Riverside, MO 64150

PROGRESS RAIL
3500 South Cowan Road
Muncie, IN, U.S.A 47302

REVISED December 4, 2018

This document is prepared by PROGRESS RAIL to guide suppliers to properly package material used in our facilities. These requirements are applicable for shipments to PROGRESS RAIL, Riverside Distribution Center, and Winston-Salem Distribution Center.

Supplier conformance to these Packaging Standards is mandatory. It is the responsibility of the supplier to deliver material properly packaged, free of corrosion, free of damage, and with the proper receiving documentation in accordance with these packaging requirements. Failure to comply will result in the issuance of a Quality Notice (QN).

Notice of Liability and Caution:
The information contained within this manual is distributed on an "as is" basis, without warranty. While every precaution has been taken in the preparation of this manual, the authors shall not have any liability to any person or entity with respect to any liability, loss, or damage caused or alleged to be caused directly or indirectly by the instructions contained in this manual. It remains the responsibility of the users of this manual to establish appropriate safety and health practices and to determine the applicability of all government agencies and the regulatory requirements in conjunction with its use.

These standards are subject to periodic review and users are cautioned to obtain the latest version.

This document supersedes all previous editions:

INDEX

ENVIRONMENT & ERGONOMIC PACKAGING

PALLET BOXES:

Wire bound crates are not allowed; replace them with a wood pallet box, MH-6020 as shown on page 19. If weight and size permit replace wire bound packaging materials with a bulk corrugated kit box (self contained), constructed with a "breakaway" feature to allow easy removal of the corrugated from the HT wood pallet. The breakaway feature requires stapling the corrugated tray to the HT pallet. This allows the corrugated to separate easily from the HT pallet.

SELF CONTAINED CORRUGATED SHIPPING CONTAINER

BOTTOM DECK BOARDS REQUIRED

STAPLE THE CORRUGATED TO THE PALLET
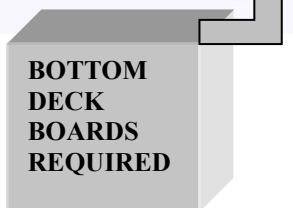
ENVIRONMENT & ERGONOMIC PACKAGING

CORNER SUPPORTS:

All corrugated cartons are recycled after use. Any contaminant such as wood that is fastened to the corrugated to add structural strength will be removed before recycling. **Therefore, wood is not to be nailed, glued or stapled to the corners, walls or to the carton top or bottom.**

FOAM DUNNAGE:

The following **CANNOT** be used:
Foam glued to corrugated, or any other dissimilar materials bonded together.
Expanded Polystyrene (EPS) - SPI Code #6 foam in sheets or loose such as foam peanuts are not allowed as a filler in the packaging.

- VCI coated corrugated cartons **are allowed.**

Alternative to foam: Replace it with other recyclable materials such as die-cut corrugated build-up inserts or molded Kraft Paper pulp. Other substitutes for the foam are bubble wrap and wadding paper.

STRAPPING:

PROGRESS RAIL is working to minimize the use of steel banding in our facilities due to the risk of cuts from handling steel material. Polyester banding should be used to minimize both the risk of injury and the cost of the banding. Suppliers are not to use steel banding when shipping parts to PROGRESS RAIL facilities unless approved of by PROGRESS RAIL Packaging Engineer. PROGRESS RAIL suggests using polyester banding with the following minimum requirements: 5/8" width, 0.035" thickness, 1400 lbs. break strength. Only a plastic banding tensioning tool should be used to tension and secure plastic banding.

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For questions regarding this document, contact jbeier@progressrail.com

ENVIRONMENT & ERGONOMIC PACKAGING

Stretch wrap poly is the acceptable method of securing cartons to a pallet.   Use clear film as the absence of color maximizes recycling potential. An LDPE (low-density Polyethylene) is the most commonly used and is the highest in performance allowing maximum hold of a carton to a pallet. Wrap the palletized unit with only the required amount of film. Your stretch film supplier can assist you with the proper use of the equipment and material. **PVC film is not to be used**.

PLASTIC RECYCLE IDENTIFICATION:

To facilitate the recycling of plastic packaging products its identity must be known. PROGRESS RAIL requires the marking of the SPI (Society of Plastic Industry) code on all plastic products. All vacuum-formed and injection-molded plastic packaging material must be identified by the SPI code as per the chart below.

Plastic packaging components such as plugs, caps, and covers are to be marked with SPI code. All manufactured plastic component parts should be identified with the proper SAE Code to facilitate recycling.

Mold the SPI code into the plastic part.

SPI Plastics Recycling Symbology

1 PETE Polyethylene Terephthalate	**2** HDPE High Density Polyethylene	**3** V Vinyl	**4** LDPE Low Density Polyethylene
5 PP Polypropylene	**6** PS Polystyrene	**7** OTHER All Other Resins	

ENVIRONMENT & ERGONOMIC PACKAGING

WASTEFUL, EXCESSIVE, OR NON-RECYCLABLE MATERIAL:
Packaging will serve many needs; parts protection, transportation effectiveness, synchronous manufacturing, ergonomic and environmental concerns to name a few. Excessive, "just-in-case" packaging is undesirable and costly for both the supplier and PROGRESS RAIL. The supplier is expected to identify and eliminate wasteful packaging practices on an ongoing basis. With reduction or elimination as the first priority, the hierarchy of waste elimination is:

<div align="center">REDUCE REUSE RECYCLE</div>

ERGONOMICS:

OVERVIEW:
Poor packaging and handling practices result in work related injuries. These injuries will increase cost and will have a negative effect on productivity, safety and quality. In order to reduce the costs associated with these losses, it is imperative that we improve the manual material handling of our packages. The following standards have been adopted from research guidelines and principles designed to reduce the risk factors associated with work related injuries.

PACKAGING DIMENSIONS:
The guidelines below are based on manual material handling techniques which allow parts in boxes to be carried close to the body and will not require excessive bending or squatting. In addition the box height is important; it must be a reasonable height for a person to reach into the over-pack box to pick material out of it. Therefore, the height on large wood boxes with pallet attached must not exceed 32 inches. If the part requires a taller box then use a style as suggested on pages 4 and 5.

HAND HELD BOXES:
The maximum acceptable gross weight of any hand held box is 50 lbs. The weight of the package should be written on the box, shown in letters sized 1.50", or the weight of the package can be printed on a standard label of generic size and design.

HAZARDOUS MATERIALS:

Hazardous materials must be packaged in accordance with the appropriate Department of Transportation (DOT) Regulations using Performance Oriented Packaging or other packaging as stated in the regulation. A supplier of a hazardous material must submit a Material Safety Data Sheet to PROGRESS RAIL Procurement before the material will be allowed for use at PROGRESS RAIL. The PROGRESS RAIL Hazardous Materials Control Committee must review and approve all MSDS submissions. This is required for all hazardous materials shipped to PROGRESS RAIL LaGrange, Riverside DC, and Winston-Salem DC. The sending in of hazardous materials samples or bringing in these unauthorized hazardous materials without prior approval is forbidden.

CORROSION PREVENTION & PART CLEANLINESS

It is the supplier's responsibility to protect their manufactured parts (ferrous and non-ferrous metals) from corrosion through the use of a suitable VCI paper (either ferrous only or multi metal), VCI poly film or a rust preventative coating or a combination of these VCI materials.

One type of VCI may be all that is necessary if appropriate for the transport and storage conditions but for the majority of parts (unpainted, machined, and un-machined, both as individual parts and in bulk packs), packaging will be incorporating at least two types of VCI.

When comprehensive packaging using two types of VCI preservative are utilized, it is highly recommended that the products (i.e. VCI paper combined with VCI poly or VCI RP coating combined with VCI paper or VCI poly), are sourced from the same supplier for performance compatibility.

Approved VCI products and rust preventative coatings afford the best protection for finished steel parts. The names of approved suppliers and contact information are contained on page 11.

It is the responsibility of the parts manufacturer to communicate with the VCI supplier the manufacturing process so that the VCI supplier can recommend the correct VCI corrosion protection product or products to use for the application.

The supplier is responsible to adequately protect the part from all forms of damage as well as corrosion and maintain specified cleanliness levels.

Contact the Packaging Engineer, Jason Beier, (708)387-5057 for further information.

- When directed to do so by PROGRESS RAIL, parts may require additional long term preservation packaging. Parts may be subject to large variances in temperature and humidity and as such they may require either a foil vapor barrier bag, a heavy gauge 8ml. plain or VCI poly bag.

- Obtain information about the vapor barrier material and its' use from a VCI supplier or the Packaging Engineer.

- For an extremely large irregular shaped part packaged in VCI poly or foil vapor barrier packaging, vacuum out the excessive air inside the packaging to enable the VCI to work quickly within its' protective packaging.

VCI USEFUL TIPS:

It is of primary importance to wear clean, cut resistant gloves when handling clean ferrous and non-ferrous parts to prevent contact with the bare metal surface prior to packaging.

- Parts to be packaged in VCI shall be clean, oil free (unless an RP oil or specified coating is applied as a final step before packaging), fingerprint free and dry before packaging in VCI poly film. This requires wearing clean gloves when handling finished parts. The part must be clean, free from soap residue and other contaminants.

- Parts must never be placed into the packaging wet from a wash operation or liquid VCI coating application. The dry part temperature shall be near room temperature to avoid moisture condensation when packaged. But a clean, finished part shall be packaged as soon as it is temperature stable to prevent corrosion from becoming established on the finished part. Sometimes to achieve this, a transition coating may be necessary.

- Process fluids and additives that are part of Metal Working Fluids (MWF) and wash system additives provide only minimal, temporary protection. Their use is necessary but <u>do not add significant preservative function to parts packaging</u>.

- VCI coated papers can be used to cover staging areas as parts are held waiting to be packaged. When using VCI paper or film as a barrier between parts and cardboard and pallet materials, typically the side <u>without</u> the printing is the active surface and is the side in contact with the part.

- Parts susceptible to corrosion cannot be in direct contact with wood, plain untreated paper or cardboard. These materials are acidic and may harbor moisture which can cause corrosion; there **must** be a VCI poly or VCI paper barrier between the part/parts and the corrugated cardboard, wood box, skid and other packaging products.

- VCI film must be closed to work effectively. This can be achieved by tightly closing the finished pack with tape, heat seal, zip ties or tightly folding over. The VCI film shall be closely sealed by one of the above methods before enclosing in a box. Roll or fold close VCI bag so VCI vapor will stay inside to protect the part from rusting then close and seal boxes.

- VCI film shall be tightly resealed after every use if necessary to access the pack such as a bulk pack of parts.

  The use of VCI materials requires knowledge of proper storage and utilization. Request information from the VCI supplier or the packaging engineer for information on the proper use of VCI products.

VCI Paper and Poly in combination

VCI paper is porous; it allows for easy volatilization and will achieve protection for the piece part rapidly. Parts using VCI paper shall be completely wrapped with VCI paper, logo facing outward

VCI film is slow in volatilization and works best for long-term protection when used in conjunction with VCI paper or a VCI RP coating.

VCI paper shall be MIL-PRF-3420 Class 3, Style A, Form b minimum and VCI poly shall have a minimum thickness of 4 mil. Variations to these minimum dimensions shall be verified by the VCI supplier as having equivalent performance.

When required for either transport or storage, using these two VCI types together to package clean, dry, oil and fingerprint free parts is a robust packaging design.

VCI RP oils and coatings

Simple light oil without any preservative in the formulation can be used as a temporary preventative coating but will not give long-term protection to the part.

Conventional/non-VCI Rust preventative (RP) oils will protect the metal surface from oxygen and moisture and will contain protective elements but unless identified as a VCI, it only protects the surface it is on.

VCI RP Oils will both coat the part and contain VCI vapors that protect the exposed metal surfaces similar to the activity of VCI paper and poly. The VCI RP oil/coating will protect the part in the longer term and also work as a barrier coating from the environment.

For some parts, the use of a VCI coating in combination with VCI paper or VCI poly will be the design of choice. Sometimes a coating will be preferred over the use of VCI paper and poly to protect the part when removed from VCI poly for transport to the assembly area.

CORROSION PREVENTION & PART CLEANLINESS

Where cleanliness requirements are specified, the packaging shall not interfere with the cleanliness requirement. Packaging shall support parts cleanliness and the packaging design may include extra materials that contribute VCI but without compromising cleanliness. These situations, for both piece parts and bulk packaging, may include the use of VCI emitters or a specialized non-discernable VCI coating.

All packaged parts shall remain in its packaging until needed to maintain corrosion protection and cleanliness.

WAREHOUSE STORAGE IN LAGRANGE

PROGRESS RAIL warehouses manufactured parts in a separate building away from the manufacturing assembly lines. Parts are placed in carset kit racks then transported between buildings to the assembly lines. This movement and the change in storage conditions make the parts vulnerable to corrosion.

Bulk packaged parts shall be designed to allow access to retrieve individual parts without compromising the ability of the VCI poly to be resealed/reclosed and continue protecting the parts still remaining in the bulk pack.

Large steel parts delivered on pallets shall have a corrosion protective VCI poly or a coating. Bulk, open top boxes (example is on page 18) must be lined with a suitable VCI bag that is enclosed and sealed in an approved way once the parts are loaded.

Large steel parts that are partially machined must have a corrosion protective coating applied. These parts shall then be placed into a large, completely enclosed box with a top cap lid (examples on pages 4, 5 and 21). This box must be lined with a suitable VCI poly bag that is sealed in an approved way once the parts are loaded.

Unmachined cast and forged parts shall be placed in open top boxes (example is on page 18) that are lined with a suitable VCI bag that is sealed once the parts are loaded. Eventually the parts will be painted and they need protection from corrosion to allow the paint to adhere. Access to the VCI bag shall be possible without damaging the bag. It shall be possible to open and reclose to continue protecting the enclosed component.

Contact information is provided as a resource for information about the selection of these corrosion prevention products.

Adherence to these practices will prevent corrosion to metal parts and avoid the issuance of a QN.

PROGRESS RAIL SUPPLIERS OF VCI

Zerust
Northern Technologies
22 Village Parkway
Circle Pines, MN 55014
Customer Service Hotline: (763) 404-8701
sales@zerust.com

Cortec
4119 White Bear Parkway
St. Paul, MN 55110
Ph. 651-429-1100
Email: Info@cortecvci.com &   www.cortecvci.com

Daubert Cromwell
12701 S. Ridgeway Ave.
Alsip, IL 60803
Ph. 800-535-3535
Email: Info@daubertcromwell.com &   www.daubertcromwell.com

ARMOR Protective Packaging®
951 Jones St.
Howell, MI 48843 USA
Ph. (800) 365-1117 (517) 546-1117
Fax. (517) 546-6434
Email: info@armorvci.com
Websites: www.armorvci.com & www.metalrescue.com

WOOD PACKAGING MATERIALS

Managing the disposal or recycling of wood pallets continues to be a challenge for PROGRESS RAIL. PROGRESS RAIL reuses or recycles as many as possible. Please see Pages 13-17 for pallet sizes and specifications. Where economically feasible, PROGRESS RAIL encourages the use of returnable pallets constructed of steel or recycled plastics.

IMPORT SHIPMENTS: material shipped to PROGRESS RAIL locations in wood containers or packaging must be ISPM certified, or the wood packaging material must be fumigated in accordance with ISPM Standards. It is not necessary to use ISPM wood for shipments into LaGrange.

PALLETS
Suppliers are required to ship material to PROGRESS RAIL Distribution Centers on ISPM, HT Certified pallets as this material is likely to be shipped to export customers. *It is not required to use ISPM certified pallets for inbound shipments to Dock H.*

The standard acceptable pallet sizes for material stored in location racks are 48" length, 40" width" and 48" length 45" width. The only pallet variation allowed is 36**" for width**. A short dimension for the length will only be allowed if pre-approved by the writer. Acceptance of this small pallet length will be dependent upon storage rack location system within PROGRESS RAIL.

Many loads arrive at PROGRESS RAIL with the banding loose and end deck boards broken, loose or missing. This is caused by smaller boxes being placed on the larger pallet. This can be corrected by placing the banding through the top deck boards in a location closest to packaging. Banding this way prevents the steel from cutting through or breaking the end and top deck boards.
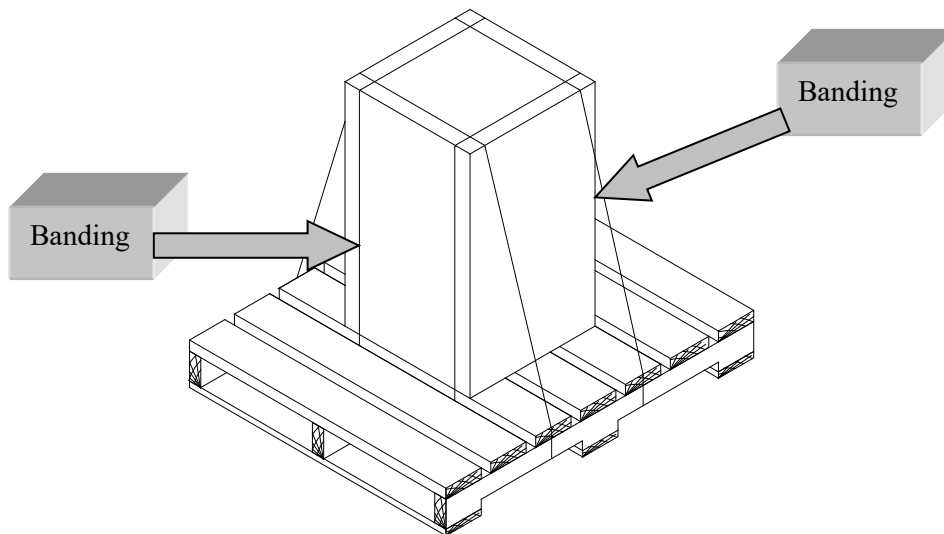
There are numerous options to consider when designing a pallet: the various species of woods available plus the part size and weight. A pallet supplier can assist in determining the correct pallet through the use of a "computer pallet program" that automatically calculates the inputs (part size and weight) and it designs the correct pallet.

WOOD PACKAGING MATERIALS

## MH-6001 STANDARD VENDOR PALLET
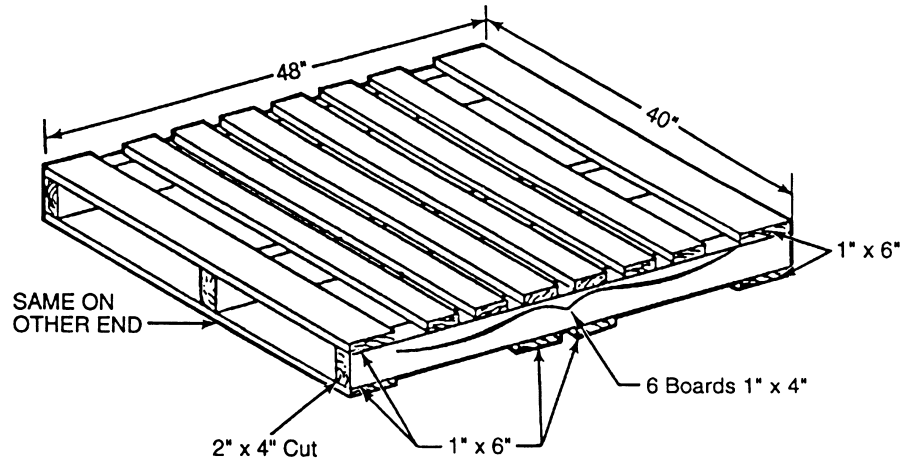
PALLET SPECIFICATIONS:

1 All lumber must be a species of hardwood (Ex. Oak, Ash, Hickory and Maple)
2 Load limit, 3000 lbs
3 Length and width $\pm$ 1/8" is allowed
4 Assemble pallet with hardened screw drive nails, (3-1/2" x .120", and screw head diameter. 1/4" $\pm$ 1/64").
5 All 6" boards have (3) nails per joint; 4" boards have (2) nails per joint.

NOTE: Material weight must be evenly distributed on the pallet. The deck boards must not be used to support the weight of heavy material, that weight must be transferred onto the runner boards. Because of size and weight of material, a pallet may require an additional runner board in the design. Therefore the R709488 pallet must be used for loads needing the additional center support. If any pallet exceeds 60" in length, 4-way entry must be part of the design. Other choices, the R709488 can be used in place of the MH6001.

WOOD PACKAGING MATERIALS

R709488 PALLET

4 stringer pallet design maximum load 5,000 lbs. capacity single stacked, transporting heavy loads casting, heads liners and pistons. Stacked 4 high the safe load capacity per pallet is 3400 lbs.
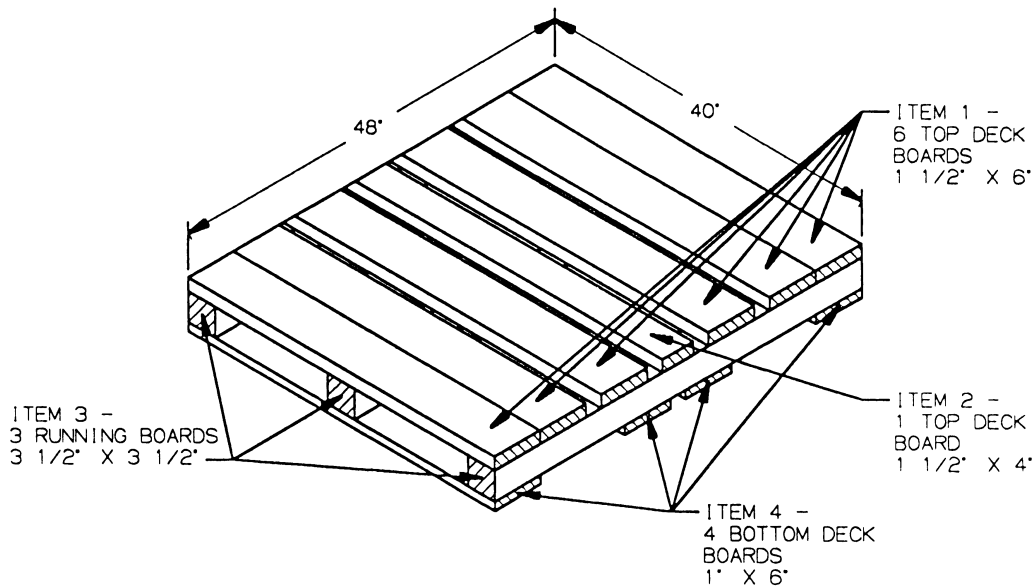

Top View
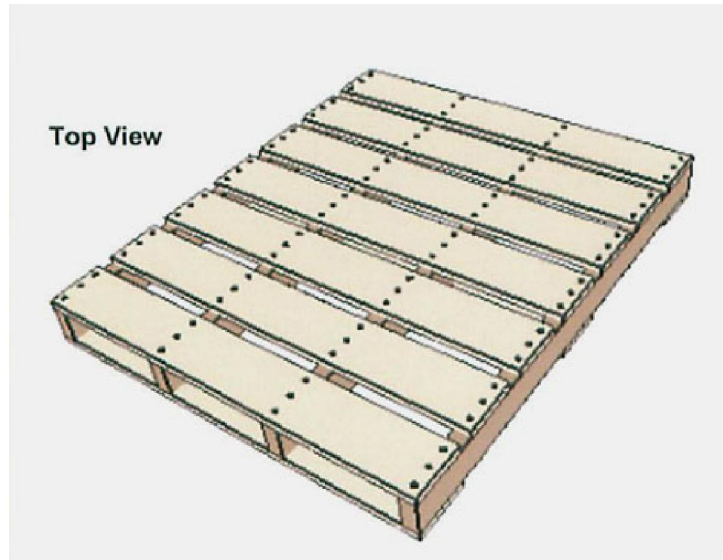
Pallet ID: R709488 - Approved Vendor Pallet - ISPM 15 Compliant
Classification: 48.00 x 40.00, Stringer-Class, Double-Face Non-Reversible, 2-Way, Multiple-Use, New Manufacture
Pallet Treatments: ISPM-15 Compliance: Heat Treatment (HT)

Side View — 48.00
End View — 40.00 — 4.88
Top View — 40.00 — 48.00
Bottom View — 40.00 — 48.00

Components

Top Deck:
Style: Deckboard   Type: New Lumber

Number	Thickness	Width	Length
7	0.688	5.500	40.00

Volume: 7.4 bd ft

Bottom Deck:
Style: Deckboard   Type: New Lumber

Number	Thickness	Width	Length
3	0.688	5.500	40.00

Volume: 3.2 bd ft

Stringers:
Type: New Lumber

Number	Width	Height	Length
4	1.500	3.500	48.00

Volume: 7.0 bd ft

Materials

Fasteners:

Fastener ID:	2 x .099 SS
Fastener Type:	Helically Threaded Nail
Fastener Length:	2.00
Thread Length:	1.25
Thread Diameter:	0.115
Wire Diameter:	0.099
Head Diameter:	0.250
Helixes:	5.4
Flutes:	4
Thread Angle:	69
MIBANT Angle:	36
FWI:	63
FSI:	55
Total Number:	120

New Lumber:
Lumber ID: KD HT Softwood

Species Class	Grade
SPF	Utility &BTR

Moisture Content (at manufacture and assembly): Kiln Dry - 19%

Total New Lumber Volume: 17.5 bd ft

WOOD PACKAGING MATERIALS

MH 200 PALLET

MH-200 HEAVY DUTY PALLET

48" 40"

ITEM 1 –
6 TOP DECK
BOARDS
1 1/2" X 6"

ITEM 2 –
1 TOP DECK
BOARD
1 1/2" X 4"

ITEM 3 –
3 RUNNING BOARDS
3 1/2" X 3 1/2"

ITEM 4 –
4 BOTTOM DECK
BOARDS
1" X 6"

PALLET SPECIFICATIONS:

1 All lumber must be a species of hardwood (Ex. Oak, Ash, Hickory and Maple)
2 Load limit, 6000 lbs
3 Length and width $\pm$ 1/8" is allowed
4 Assemble pallet with hardened screw drive nails, (3-1/2" x .120", and screw head dia. 1/4" $\pm$ 1/64").
5 All 6" boards have (3) nails per joint; 4" boards have (2) nails per joint.

NOTE: Material weight must be evenly distributed on the pallet. The deck boards must not be used to support the weight of heavy material, that weight must be transferred onto the runner boards. Because of size and weight of material, it may require an additional runner board in the design of the pallet. If the pallet exceeds 60" in length, 4-way entry must be part of the design.

WOOD PACKAGING MATERIALS

WINGED PALLET

R709350
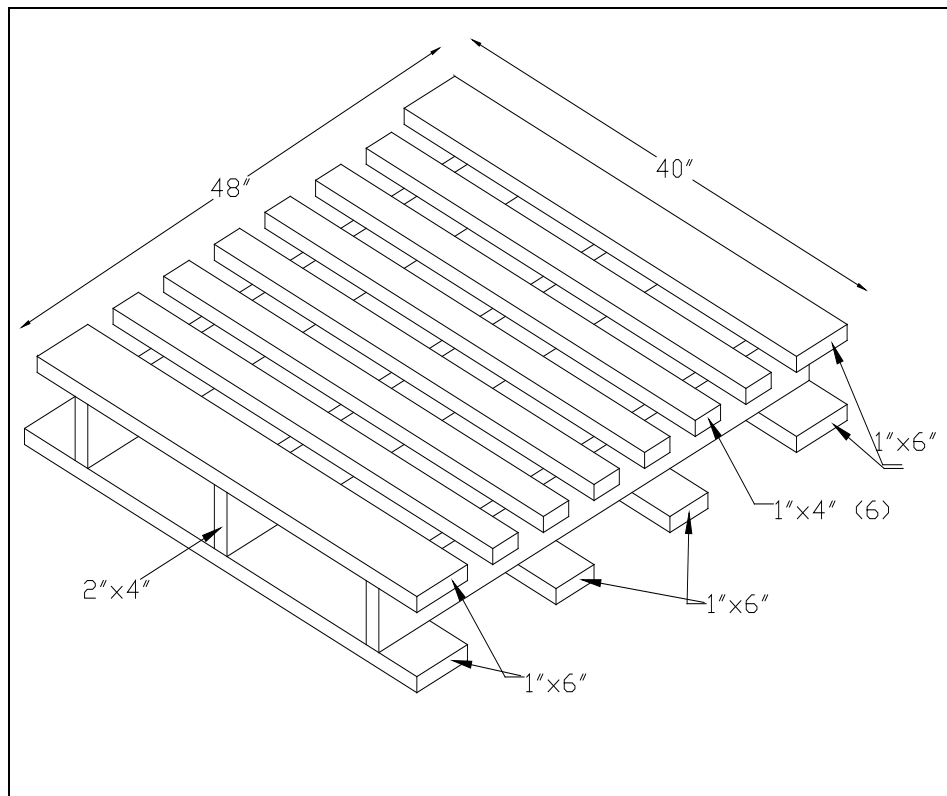
PALLET SPECIFICATIONS:

1   Top deck end boards are 1"x6". The other six (6) top deck boards are 1"x4".
2   All bottom deck boards are 1"x6".
3   Runners are a minimum 1 ½" x 3 ½" (may be cut rough).
4   Lumber must be a species of hardwood (Ex. Hickory, Oak, Maple, and Ash).
5   Must be assembled using screw nails.
6   Load limit is 3000 lbs.

NOTES: Winged pallets are designed to accommodate heavy loads (castings, forgings, etc.).

WOOD PACKAGING MATERIALS

PALLETS AND WOOD BULK SHIPPING PALLET BOX

WOOD BOX PALLET MH-6020
FOR CASTINGS, FORGINGS, BULK HEAVY MATERIAL

Add additional side boards to make the box height taller

PALLET SPECIFICATIONS:
1 Top deck end boards are 1" x 6" (min. 5/8" x 5-1/2"). The six (6) other top deck boards are 1" x 4" (min. 1/2" x 3-1/2").
2 All bottom deck boards are 1-1/8" x 6" (min. 1-1/8" x 5-1/2") and must extend a maximum of 3/4" beyond runners at sides and ends.
3 Runners are a minimum 1-1/2" x 3-1/2" (may be rough cut).
4 All lumber must be a species of hardwood (Ex. Oak, Hickory, Maple, and Ash)
5 Must be assembled with screw nails.

BOX SPECIFICATIONS:
1 All boards for sides, ends and cleats are 1" x 4" (minimum 5/8" x 3-1/2").
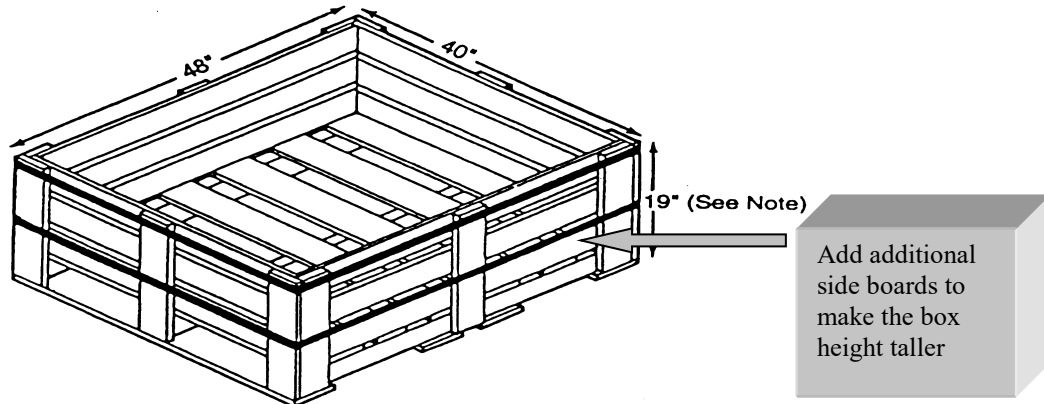2 Three (3) horizontal boards are required on sides and ends. Vertical boards must rest on extended bottom deck boards.
3 All lumber must be a species of hardwood (Ex. Oak, Ash, Hickory and Maple)
4 Vertical boards must be nailed to runners.
5 Tack nail at top of box while banding.
6 Strap horizontally at top and middle with two (2) 3/4" x .023 minimum flat steel strapping.

NOTE: Standard height of pallet box from the floor is 19". This size may be increased to height up to 25". When the bulk boxes are constructed according to the design as shown they can stack two (2) high.   A higher side 25" will require additional horizontal side boards.

WOOD PACKAGING MATERIALS SPECIFICATIONS

- LUMBER GRADE - The softwood must be kiln-dried, HT certified Premium Grade or better. No economy grade or moldy wood may be used. The hardwood grade will range from rough green to furniture grade oak.

- PLYWOOD GRADE - The grade of plywood must be Mill Certified or better.

- NO BARK - All kiln-dried HT Softwood and HT Hardwood must have any and all bark and bark skin removed so that the packaging will meet the strictest export standards for any country.

- All lumber and plywood should come from North America whenever possible and be of a non-threatened softwood species. Redwood, which is the only North American species on the regulated list, may not be used.

- WELDING – Turbo Boxes, Alternator and Generator Blocks, Engine Blocks, Engine Cribs and Reusable Packaging must have welded hardware. This is needed to achieve the proper torque when securing the part to the packaging and also to increase the durability of reusable packaging.

- Only quality, compliant nails and fasteners may be used.

- All packaging must be RoHS compliant.

- All NAFTA forms and Certificates of Origin must be completed in a timely manner for Export shipments.

DISTRIBUTION CENTER PACKAGING

BASIC GUIDELINES
PROGRESS RAIL is a global supplier of locomotive parts that ship from our Distribution Centers. Many factors are taken into consideration when PROGRESS RAIL has the distribution facilities pick, pack and ship parts to customers; the ship to location, domestic or export, packaging durability, export HT Certification of wood, corrosion protection, to name a few.

For the Distribution Centers to be efficient, the parts received from suppliers must be packaged, ready for warehouse storage, and available for customer shipment immediately upon demand. Wooden containers should not be cobbled together, heavy parts should be in robust containers that support their transportation to the DC, and attention to detail must be paid for delicate parts and parts with Class-A surfaces.

The DC reserves the right to refuse any parts which are damaged and/or not properly packaged and issue a QN and charge back to the supplier.

Today some supplier packaging materials must be replaced by the Distribution Centers when they do not meet a customer requirement or the Distributions Center's written packaging instruction. The Distribution Centers have a database that has specific packaging instructions for a part.

No supplier logo (symbols, names or addresses) is to appear on the packaging, i.e., cartons, boxes, over-pack, labels, etc.

PROGRESS RAIL is not expecting to be involved in the detail of individual parts packaging other than the directives in this packaging requirement's booklet. If a problem or question arises, call the Packaging Engineer for assistance 708-387-5057.

SERVICE PARTS SHIPMENTS
Parts packaged, stored in the Distribution Centers will ship to both export and domestic customers and the final destination is not known until the parts order is taken and processed. Therefore, careful and cost competitive packaging must be selected. That being said, all parts susceptible to corrosion or damage must receive packaging that will sustain protection for one year of storage.

Questions regarding packaging, the quantity per pack, or whether the packaging should be wood, corrugate or a combination of the two that is to be determined by the Packaging Engineer (708) 387-5057.

PARTS ASSEMBLY COMPONENT KITS (More than one box make up a kit)
Multiple part numbers all packed in separate boxes when joined together become a kit, (example 3 boxes marked as 1of 3, 2 of 3 and 3 of 3), mark the boxes accordingly. Suppliers when packaging kits place the parts in a bulk corrugate kit box similar to that as shown on pages 4 and 5. When the kit arrives at a PROGRESS RAIL facility it will be stored in the warehouse and shipped to the customer in that bulk box as a complete parts assembly kit.

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For questions regarding this document, contact jbeier@progressrail.com

DISTRIBUTION CENTER PACKAGING

EXPORT PALLETS OR PLYWOOD AND WOOD BOXES

A plank wood (un-surfaced) rough-sawn board lumber box poses a problem in the factories as the lumber easily breaks, and it is <u>not accepted</u>. Boxes constructed from OSB, Oriented Strand Board are not allowed as a packaging material. During handling and transport the blade of a fork truck can easily puncture the board and when this occurs the box strength is greatly reduced.

HEAT TREAT REQUIREMENT OF WOOD PRODUCTS, ISPM #15 RULES

Effective September 15, 2005, all lumber exported from the United States and imported into the United States are required to have been heat-treated HT Certified to be compliant to the ISPM-15 Rule. This includes wood boxes made from board lumber; pallets and interior wood used for blocking and bracing (dunnage on the inside of wood or corrugated boxes). Plywood boxes are excluded from this regulation however, the lumber attached (cleating or blocking and bracing lumber) attached to plywood is subject to this regulation. The stamp shown above must appear on the wood box on two opposing sides. The absence of this marking will cause the customs department within the country to quarantine the freight until proper documentation is provided by the shipper. The documentation the shipper must provide is proof that the wood materials used to construct the box are properly treated in accordance with the ISPM Standards. Noncompliance to this regulation and all requirements could result in confiscation of the shipment by a US or Foreign Government Customs Department.

PROGRESS RAIL PACKAGING REQUIREMENT FOR EXPORT CUSTOMERS MUST BE IN COMPLIANCE TO THE ISPM, HT Standard. Shipments into Distribution Centers, the wood boxes, pallets, blocking and bracing materials used in a box must be made from HT Treated wood. In addition to these requirements bark is not allowed it must be removed with a rasp tool. Visit the websites below to obtain further information regarding the ISPM #15 rules.

For details regarding ISPM #15 Rules see:
http://www.nwpca.com/ExportTreatment/ExportTreatmentProg.htm

Refer to the following Canadian Food Inspection Agency website for more details:
www.inspection.gc.ca/english/plaveg/protect/dir/d-98-08e.shtml

PARTS DISTRIBUTION CENTER PACKAGING

EXPORT HT NAIL-LESS KIT BOX

For export shipments the box should be sized to maximize the cube of a sea container 44" width ODS.

CORRUGATE LINER
VAPOR BARRIER BAG
POLY VCI

Export packaging requires these 3 packaging phases.

Bottom deck boards required

Industrial Packaging - *Compliant with PROGRESS RAIL Packaging Requirements*

Boxes

- wood *(HT - export compliant)*
    - o bulk plywood boxes
    - o bulk nail-less kit boxes sized to cube sea containers 44" width OD
- corrugated
    - o heavy-duty construction
    - o stock boxes
- wood & corrugated, bulk kit boxes **domestic use only**
    - o self-contained design box (see pg .4) custom designed and stock sizes are available
- packaging supplies
    - o tape, labels, stretch film, edge protectors, strapping, poly bags

Progress Rail
A Caterpillar Company

For questions regarding this document, contact jbeier@progressrail.com

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ATTACHING REQUIRED DOCUMENTS TO SHIPMENTS

The labels and packing list are essential to PROGRESS RAIL receiving and accounts payable departments for verification of receipt and to pay a supplier invoice. To facilitate the receiving of material and invoicing processes PROGRESS RAIL requires suppliers to bar code certain inbound receiving documents. We recognize that providing bar codes on packing list and labels can be challenging. In certain instances the bar codes PROGRESS RAIL suppliers are providing on packaging, labels and other documents cannot be read with PROGRESS RAIL scanners.

Therefore, PROGRESS RAIL is providing information for suppliers to purchase labeling software with formatted templates to generate a PROGRESS RAIL packing list, part number label with bar codes and templates to print an Address and Mixed Load Labels. If you have software that prints a packing list and part number label with bar codes continue to use it. Print the forms scan the bar codes with a reader to verify they can be read. If you have other software and print capabilities to produce the other labels, address and mixed load there is not a need to purchase ADSI software. There are examples of these requirements on pages 26-28). **The ADSI bar code software was tested by PROGRESS RAIL; a packing list was generated and with an ADSI recommended scanner the bar codes were read.**

SUMMARY: Definitions and explanations of the labeling and bar code requirements:

Packing List must be placed in a packing list envelope for each shipment and affixed on the outside of a carton, container that is marked "1 of __" the shipment. All item/part number information on the packing slip must be legible and available on one side of a single sheet of the packing list form. A single part number packaged in multiple cartons, display the Packing List on the top carton also, place a label on each carton that states the total number of cartons in the shipment, "1 of ___".

1. We prefer to have the single one (1) part number material listed on one (1) packing slip with a total quantity for that shipment, not multiple packing slips.
2. Attached to each shipment must document titled packing list and assigned a unique identifier a number, and it must be clearly marked on your invoice in the upper right hand corner.
3. **Part Identification Label:** It's required on the outside of each individual packaged carton or box. It identifies the parts and quantities contained inside the individual boxes. At no time is it permitted to stack material on a pallet or in a bulk box in such a manner that part number identification and packing list information is not visible.
4. **Address Label:** Must be visible and can be affixed to the outside of a box, containment device or to stretch film if it is used contain smaller boxes on a pallet.
5. **Mix Load Label:** Placed on a pallet or to the outside of a box with many smaller boxes having different part number stacked within. Shipments of mixed part numbers routed to different plants must be separated according to their PROGRESS RAIL Purchase Order Number. This avoids having to re-palletize the material before it can be sent to the receiving warehouse.
6. The BOL must specify the NUMBER and TYPE of containers in the shipment (box, pallet, reel, drum, etc.)
7. The Bill of Lading will list all the packing lists that are part of the shipment.
8. An invoice is to reference only one packing list. See PROGRESS RAIL Website for further information.

ATTACHING REQUIRED DOCUMENTS TO SHIPMENTS

Suppliers are required to apply <u>Bar Code Symbol 128 Labels</u>, if you generate a label in code 39 our scanners are set to read that code. Note: Code 128 will print a higher quality bar code which makes it easier to scan and read.

<u>Packing List data requirements:</u>
- Vendor name and address
- *Vendor Code
- *Identify the unique packing slip number in the upper right hand corner of the document.
- *BOL Number
- Mode of shipment to PROGRESS RAIL, including carrier and type of vehicle, as specified on the PROGRESS RAIL purchase order
- PROGRESS RAIL Warehouse designation and delivery address as specified on the purchase order
- *Purchase Order Number
- *Purchase Order Line Item
  *The PROGRESS RAIL customer part number, and where applicable the related serial number as specified by the Purchase Order
- *The quantity shipped is to be shown. *DO NOT SHOW* the quantity ordered or the quantity on back on this packing slip.
- The unit of measure **MUST** be the same as the purchase order unit of measure
- The description of the material as specified on the PROGRESS RAIL Purchase Order.
- PROGRESS RAIL Customer Order, modification, and specification information as specified on the PROGRESS RAIL Purchase Order.

    *DENOTES BAR CODE REQUIRED

ATTACHING REQUIRED DOCUMENTS TO SHIPMENTS

Your Company Name

Your Company Name
Yourcompanyaddress
City, state, zip

Sold to:

Progress Rail
9301 W 55th Street
La Grange, IL 60525

Ship to:

Progress Rail
9301 W 55th Street
Dock H
la Grange, IL 60525

Packing Slip

Vendor Code

301063

1 Of 1
Vendor Packing Slip#

17263

BOU SID

55955

Customer PO#

4500231231

Date Shipped: 12/07/18		F.O.B: Bridgeview		Shipped Via: Landstar		
Customer PO Line#	Weight	Customer Part#	Part Description	Qty Shipped	UOM
01	1374	8266137	Bolt 1-1/4 12 special	400	ea

IMPORTANT: On the Packing List in the field "Sold To:" place in this position the delivery address as shown on the PROGRESS RAIL Purchase order.

Progress Rail
A Caterpillar Company

For questions regarding this document, contact jbeier@progressrail.com

ATTACHING REQUIRED DOCUMENTS TO SHIPMENTS

Address Label INSTRUCTIONS

Address Label 4" X 3" minimum size an address label is required on each Handling Unit.

Ship To:
Address taken from P O
Text Height = 1" minimum
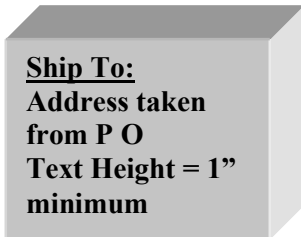
Progress Rail
9301 W. 55th St. Dock N
LaGrange, IL 60525

NOTE: IF YOU ARE CURRENTLY USING A 4"x6" LABEL THIS IS ACCEPTABLE SYSTEM

Mixed Load Label INSTRUCTIONS
Mixed Load Label 4" X 3" – This is used when more than one part is on a (HU) Handling Unit.

Mixed
Load

Part Identification Label Instructions

The supplier is to provide a part number identification label, of a generic design and it must have the following information: Part number, (bar code) Quantity, manufacturing Date Code (do not bar code) if it is not known the shipping or packaging date will be accepted. Note: if the part is date sensitive then it is mandatory the expiration date be applied to the label! Parts shipped to manufacturing loose (usually bulk pieces) on a skid or inside a bulk open top crate must have the part number stamped on each part with non-corrosive ink or attach a wire manila tag.

Shipments to Distribution Centers, steel piece parts placed loose on a pallet or in a bulk box, not packaged, place the part number on each piece part use a wire tag or ink stamp the part number on each piece.

ATTACHING REQUIRED DOCUMENTS TO SHIPMENTS

Part Identification Label 4" X 3"

<div style="border:1px solid">

Date Code　　　　　　**Quantity**

Part number

1 of _ _ _

</div>

A carton, which is a complete container in itself, whether palletized or loose it, must have a Part Number Identification Label.

Individual Carton Label, **On** the Carton
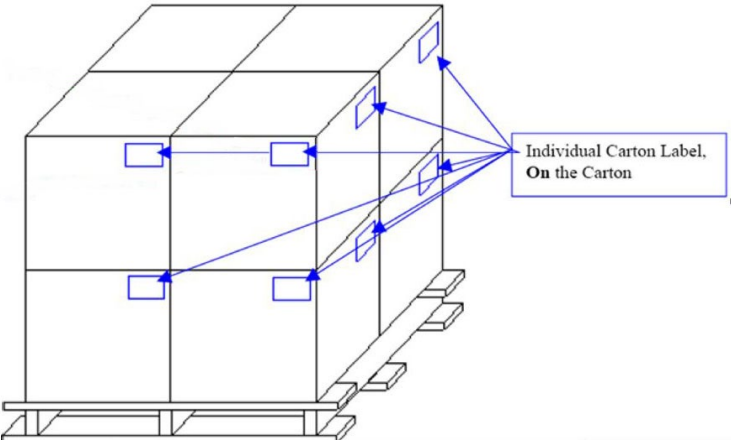
**PROGRESS RAIL BASIC PACKAGING REQUIREMENTS
PACKING LIST INSTRUCTIONS**