

AA TRUCK TALK EQUIPMENT FOR THE 88-A PLATFORM

By Neil Wilson of Boulder, Colorado — April 1998 (revised 12/24/99)
revised 11/9/14 for aafords.com - "component" changed to "equipment"

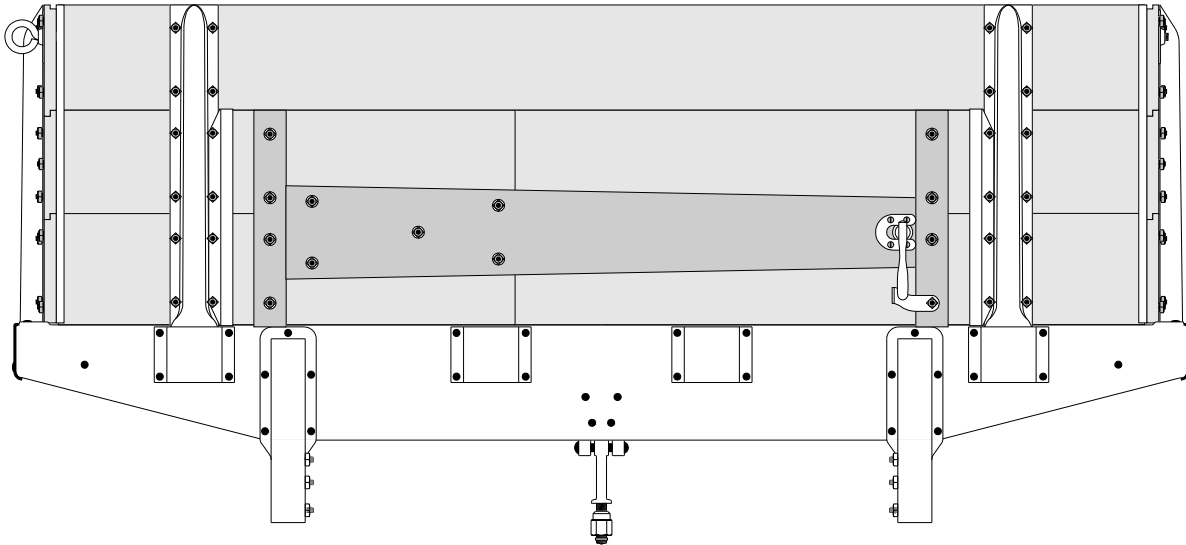


Illustration #1: 134-B Grain Sides - Rear Rack with Dump Door
(scale 1" = 1')

This article covers the optional equipment, sold by Ford, which was used with the 88-A Platform body to make up Stake, Stock, and Grain bodies.

I am in search of someone having a set of the Ford 134-A stock racks. An original set is needed so that detailed drawings can be produced for this equipment.

Taken February 18, 1929, the Stock Truck photograph on the last page was produced from an original provided courtesy of the "Henry Ford Museum and Greenfield Village." The make up of this truck includes closed cab 82-A with platform 88-A and stock racks 134-A, all on a 131-1/2" WB AA chassis. Some detail is lost in reproducing the original photograph; however, several specific observations may be seen:

- ◆ The 88-A platform has the six pocket floor side members.

- ◆ The body mounting hardware represents versions #5-7 which included front brackets and three u-bolts per side.
- ◆ The spare wheel carrier is located under the rear of the body.
- ◆ This truck has the optional rear fenders.
- ◆ The tail light is frame-mounted with the AA-13473 two bolt version support.
- ◆ The standard pin stripping is located below the belt molding and down the hinge pillar only.
- ◆ The rear view mirror is mounted at the sun visor. This was the second location for the mirror. The mirror was attached three to four inches below the top door hinge until mid 1928.

Table of Contents

AA TRUCK TALK.....	1
EQUIPMENT FOR THE 88-A PLATFORM.....	1
OVERVIEW.....	2
188-A STAKE RACKS DETAIL	3
Stakes	5
Rack Connections	6
Rack Assemblies	8
Rack Board Dimensions.....	8
134-A STOCK RACKS DETAIL	9
134-B GRAIN SIDES DETAIL	9
Stakes	9
Tie Rods	10
Rack Assemblies	10
Rack Board Dimensions.....	12
Correction Information 12/24/99 - 188-A Stake Racks.....	14

OVERVIEW

The 88-A platform was the base for stake, stock, and grain bodies. These bodies were produced by installing racks in the platform stake pockets. With any of these racks installed, the usable cargo area was 68" wide by 97-1/2" long.

The stake body consisted of platform 88-A with stake racks 188-A. Both stake racks and platform body production ran from December 1927 through February 1931. The stake racks were constructed of stamped steel stakes with three 3/4" thick cross boards. These racks extend approximately 26" from the floor.

Stake racks were assigned part numbers AA-88200 through AA-88315 until May 1930. In May 1930 body model numbers were assigned to all A and AA bodies. Stake racks were assigned body model number 188-A. Consequently, all parts were reassigned an "AA-188" prefix replacing the prior "AA-88" prefix.

Platform and stake body versions had the following characteristics:

- ◆ *Version #1* (12/27-er/28) - Four internal side stake pockets and three external rear stake pockets. In raised script, the words "Ford Truck" were separated by the center stake pocket. Stake racks had one rack at the front, one at the rear, and two on each side.
- ◆ *Version #2* (er/28-mid/28) - Six internal side stake pockets and three external rear stake pockets. The rear center pocket was for a non-locking stake initially but was later changed to accommodate a

locking stake. This version also had "Ford Truck" on the rear cross member. Stake racks had one rack at the front, one at the rear, and three on each side.

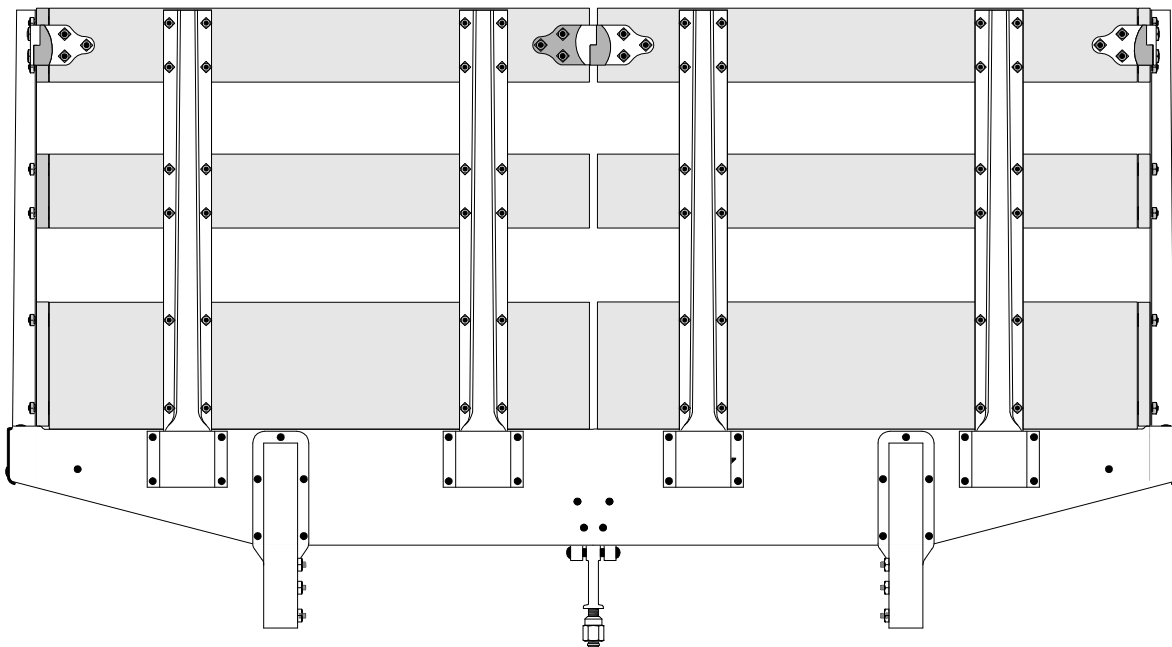
- ◆ *Version #3* (mid/28-2/31) - Six internal side stake pockets and four external rear stake pockets. The rear center-right stake pocket was for a locking stake. The words "Ford Truck" were eliminated with this version. Stake racks had one rack at the front, two at the rear, and three on each side.

The stock body included stock racks 134-A mounted on the version #3 88-A platform. Production of this equipment ran briefly from February 1929 through July 1929. Stock racks were constructed entirely of wood. There were five, 3/4" thick cross boards attached to wooden stakes. These racks extend 48" from the floor. There was one front rack, one rack on each side, and two rear racks.

The grain body consisted of the version #3 88-A platform with grain sides 134-B. Production of this equipment occurred at the same time as the stock racks. The grain sides were constructed of stamped steel stakes with three, tightly fitted, 3/4" thick cross boards. The sides extend 20" from the floor. There was one front rack, one rack on each side, and one rear rack with a dump door.

The remainder of this article is a detailed description of the 188-A stake racks, 134-A stock racks, and 134-B grain sides.

Illustration #2: 188-A Stake Racks - Rear Racks for Platform Version #3
(scale 1" = 1')



188-A STAKE RACKS DETAIL

Stakes	
2 AA-88230	Stake (front) was TT-12719-BX Boards to front Stakes - attachment 1/4-20 X 1-1/2 (1/8 x 13/16 head) step bolt
12	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
12	1/4 (1/16 x 1/2) lock washer
*a AA-88220	Stake (style A) (side and rear) assembly - was TT-12705-X Stake (style B) (side and rear) assembly
1 AA-88233	Stake (rear locking) assembly
1 AA-88315	Lock (rear locking stake) assembly Boards to side and rear Stakes - attachment 1/4-20 X 1-1/4 (1/8 x 13/16 head) step bolt
12 per stake	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
12 per stake	1/4 (1/16 x 1/2) lock washer

Connections	
*b AA-88304	Connection (rack) was TT-12733-X
*c AA-88305	Connection (rack) was TT-12734-X
4 AA-88308	Connection (rack) was TT-12735-X
4 AA-88309	Connection (rack) was TT-12736-X Connection to Boards - attachment 3 per connection 5/16-18 x 1-3/8 (5/32 x 11/16 head) carriage bolt 3 per connection 5/16-18 (1/4 x 9/16) square nut (chamfered one side) 3 per connection 5/16 (3/32 x 23/32) lock washer

Front Stake Rack	
2 AA-88250	Anti-rattler (front stake rack to cab) was TT-12758-X Anti-Rattler to Boards - attachment 4 11/16" Nail (3/16" flat head)
1 AA-88200	Rack (front) assembly - was TT-12753-BX
1 AA-88270	Board (rack) front - lower - was TT-12750-BX
1 AA-88271	Board (rack) front - center - was TT-12751-BX
1 AA-88272	Board (rack) front - upper - was TT-12752-BX
1 AA-88200-B	Rack (front) assembly
1 AA-88270	Board (rack) front - lower - was TT-12750-BX
1 AA-88271	Board (rack) front - center - was TT-12751-BX
1 AA-88272	Board (rack) front - upper assembly
2 AA-88???	Board (rack) front - upper
1 AA-88215	Panel (front rack upper board assembly) Panel to front rack upper boards - attachment 8 1/4-20 X 3/4 (1/8 x 13/16 head) step bolt 8 1/4-20 (1/4 x 1/2) square nut (chamfered one side) 8 1/4 (1/16 x 3/4) flat washer 8 1/4 (1/16 x 1/2) lock washer

Side Stake Racks	
1 AA-88202	Rack (side) front assembly RH was TT-12755-X
1 AA-88203	Rack (side) front assembly LH was TT-12756-X
1 AA-88204	Rack (side) rear assembly RH was TT-12760-X
1 AA-88205	Rack (side) rear assembly LH was TT-12761-X
4 AA-88255	Board (rack) side - front and rear - lower - was TT-12744-BX
4 AA-88259	Board (rack) side - front and rear - center - was TT-12745-BX
4 AA-88263	Board (rack) side - front and rear - upper - was TT-12746-BX Rear side rack to platform - attachment 2 5/16-18 x ?? (?? x ?? head) carriage bolt 2 5/16-18 (1/4 x 9/16) square nut (chamfered one side) 2 5/16 (3/32 x 23/32) lock washer
1 AA-88202-B	Rack (side) front assembly RH
1 AA-88203-B	Rack (side) front assembly LH
1 AA-88204-B	Rack (side) rear assembly RH
1 AA-88205-B	Rack (side) rear assembly LH
4 AA-88255-B	Board (rack) side - front and rear - lower
4 AA-88259-B	Board (rack) side - front and rear - center
4 AA-88263-B	Board (rack) side - front and rear - upper
2 AA-88207	Rack (side) intermediate assembly
2 AA-88209	Board (rack) side - intermediate - lower
2 AA-88211	Board (rack) side - intermediate - center
2 AA-88213	Board (rack) side - intermediate - upper

Rear Stake Racks	
1 AA-88201	Rack (rear) assembly - was TT-12754-BX
1 AA-88267	Board (rack) rear - lower - was TT-12747-BX
1 AA-88268	Board (rack) rear - center - was TT-12748-BX
1 AA-88269	Board (rack) rear - upper - was TT-12749-BX

Rear Stake Racks continued	
1 AA-88201-B	Rack (rear) assembly RH
1 AA-88218	Rack (rear) assembly LH
2 AA-88267-B	Board (rack) rear - lower
2 AA-88268-B	Board (rack) rear - center
2 AA-88269-B	Board (rack) rear - upper
*a -11 for version #1; 15 for version #2; 15 for version #3 *b -2 for version #1; 4 for version #2; 4 for version #3 *c -2 for version #1; 4 for version #2; 6 for version #3	

Illustration #3: AA-88230 Front Stake
(scale 1/4" = 1")

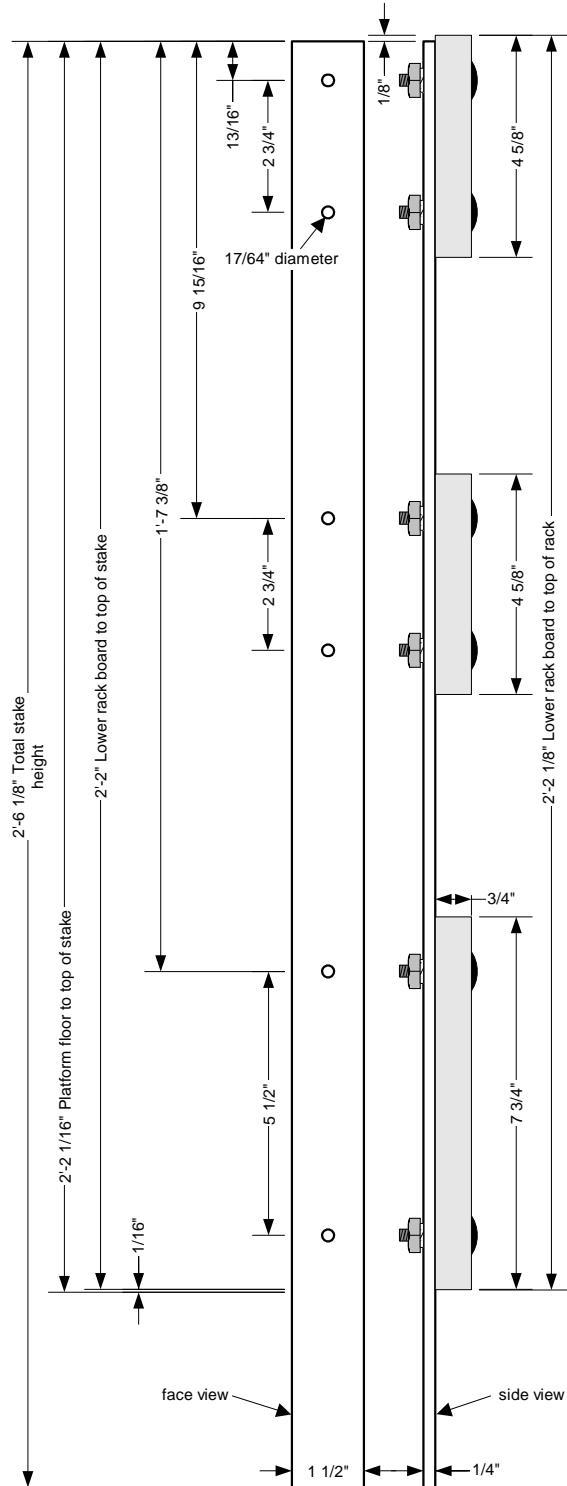
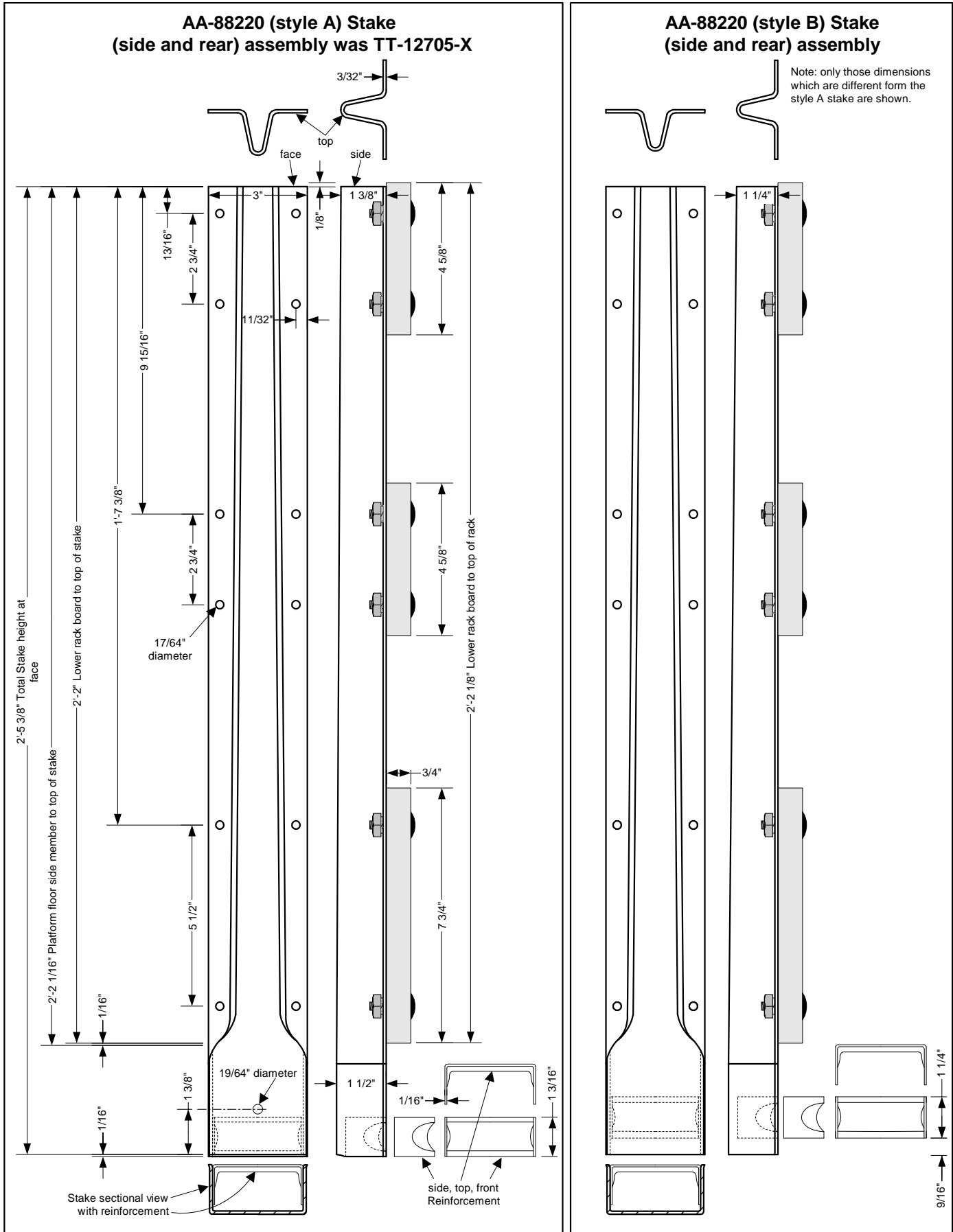


Illustration #4: AA-88220 Side and Rear Stake Assembly
Style A (12/27 - er/28) and Style B (er/28 - 2/31)
 (scale 1-4" = 1")



**Illustration #5: AA-88233 Rear Locking Stake Assembly
showing AA-88315 Lock Assembly**

(scale 1" = 1")

Stakes

There were two designs of stakes used in each set of racks. The front rack used flat, strap-metal stakes. The side and rear stakes were of a stamped steel design.

The two front stakes were assigned part number AA-88230. This stake was a 1925/1926 TT carry over part. The stake was 1-1/2" wide by 1/4" thick and was held snugly by the tabs in the front pockets. Illustration #3 shows this stake.

The stake for side and rear racks was also a 1925/1926 TT carry over part. This stake was assigned part number AA-88220 and is shown in illustration #4 as style A. These stakes slipped into the pockets with very little play. The platform's floor side members angled inward along their bottom edges and served as stops for the front face of the stakes. The platform's rear pockets did not have stops for the stakes.

The AA-88220 stake was an assembly which included a 1-3/16" high reinforcement spot welded to the inside of the stake. This reinforcement was located flush with the bottom sides of the stake. The stake's bottom sides were 1/16" longer than the bottom face.

The stake had a 1/8" tapered profile as the top thickness was 1-3/8" and the bottom was 1-1/2". The stake was 3" wide; however, the extruded stamping was tapered. The top of the stake formed a "V" shape. At the platform floor side member, the stake's cross section formed a "U" shape.

There was a 19/64" hole in the face of the stake which was located 1-3/8" from the bottom edge. The platform's floor side members had a corresponding square hole in the rear pocket. The rear stake on each side could be secured to the platform with a carriage bolt using these holes.

In early to mid 1928 a revised design AA-88220 stake was introduced. It is shown in illustration #4 as style B. This stake had more of a tapered profile since the top thickness was decreased by 1/8" to 1-1/4". 1/16" was removed from the bottom side edges making them flush with the bottom face edge. The reinforcement was reduced to 1-1/4" high and was raised to be 9/16" from the bottom edge of the stake.

The 19/64" hole in the face of the stake was eliminated. This meant that the rear stake on each side could no longer be secured to the platform body.

The style "A" and "B" stakes were interchangeable and were probably intermixed on rack units until the "A" style was sold out.

In early to mid 1928 the AA-88233 rear locking stake was introduced. Some version #2 platforms included the AA-88239 center rear pocket which was designed to accept the locking stake. All version #3 platforms included this pocket as the center-right pocket. The rack with the locking stake was installed last. Consequently, the left rear rack and both side rear racks were locked into place to prevent them from bouncing out while traveling over rough roads. Illustration #5 shows the AA-88315 lock assembly.

When the locking stake rack was installed, the latch would be automatically depressed and then spring back into the hole of the pocket, the same way any latch works when closing a door. The latch operator was accessed from the bottom of the pocket. With the left hand, the latch operator was moved to the left to slide the latch. With the right hand, the rack could be lifted for removal.

The style "B" stakes and rear locking stake were used through the end of production in February 1931.

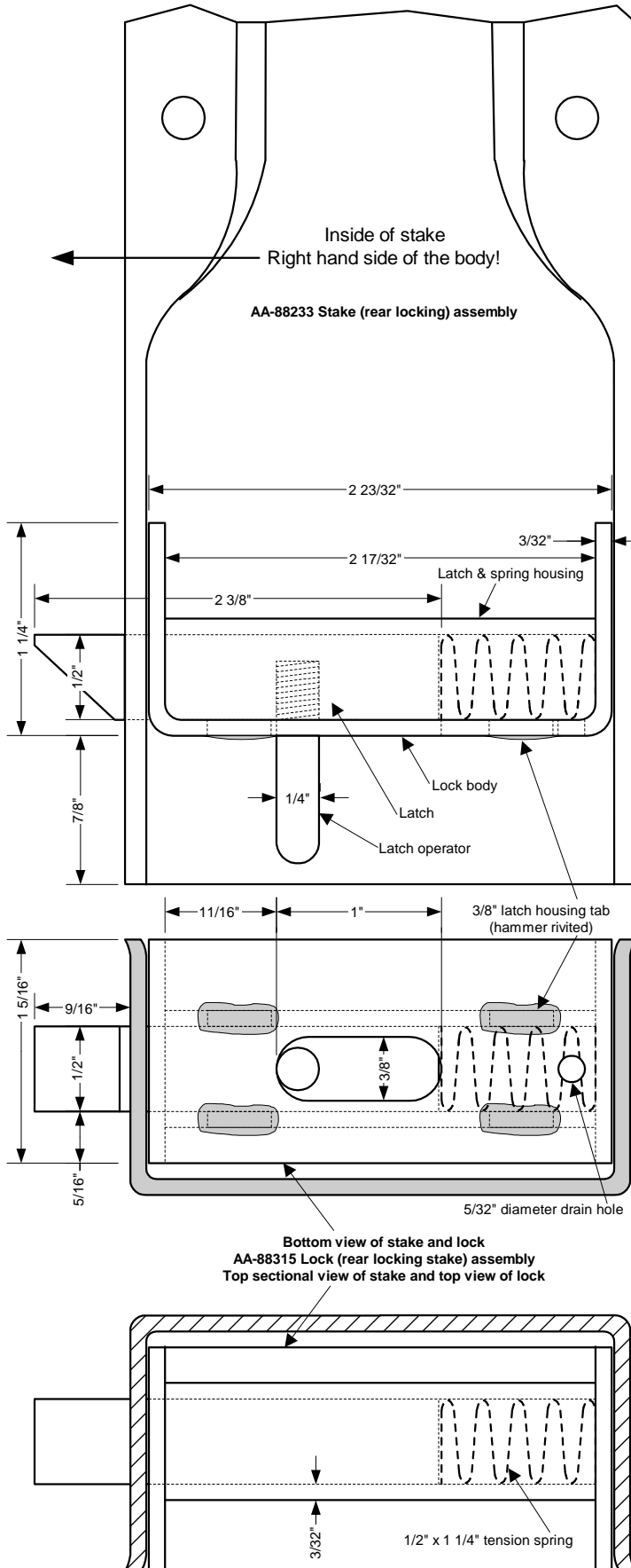
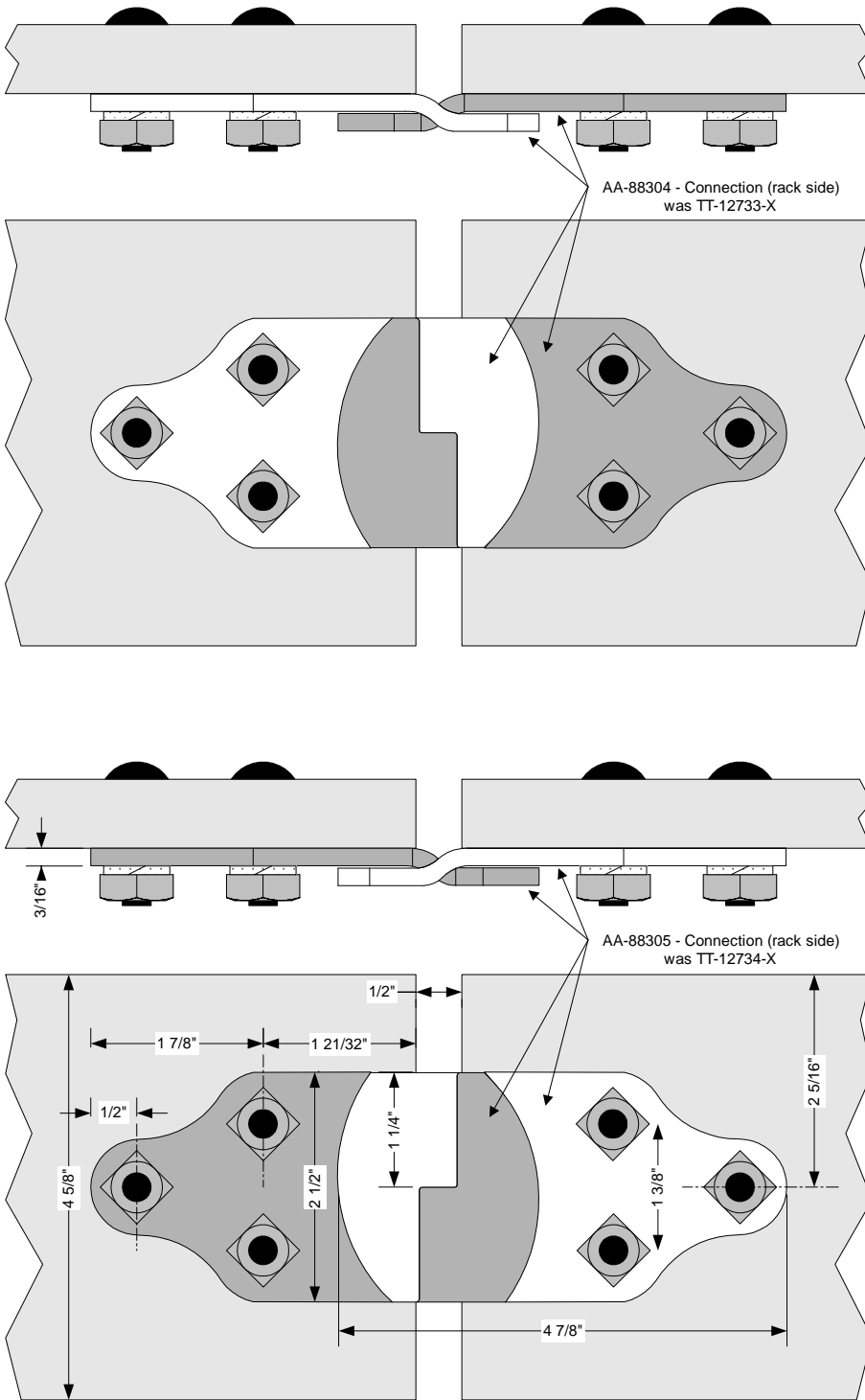


Illustration #6: AA-88304 and AA-88305 Stake Rack Connections

(scale 1/2" = 1")



Rack Connections

There were four different rack connections used with each set of stake racks. Connections were TT carry over parts and did not change during the 88-A platform production period.

The version #1 stake racks used two AA-88304 and two AA-88305 connections between the side racks. Stake racks version #2 and #3 included three side racks and consequently used four AA-88304 and four AA-88305 connections per side. In addition, stake racks version #3 had two rear racks which used two AA-88305 connections between the two racks. Illustrations #6 shows these side style connections.

All versions of stake racks used four AA-88308 and four AA-80309 connections for the corners as shown in illustration #8.

The front and rear side racks were identical assemblies except for the rack connections.

The connections on each rack dictated its installation sequence. Following is the installation sequence by platform version:

Version #1

- Front Rack
- Side-Front Racks
- Side-Rear Racks
- Rear Rack

Version #2

- Front Rack
- Side-Front Racks
- Side-Rear Racks
- Side-Intermediate Racks
- Rear Rack

Version #3

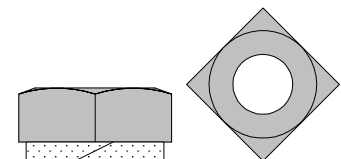
- Front Rack
- Side-Front Racks
- Side-Rear Racks
- Side-Intermediate Racks
- Rear-Left Hand Rack
- Rear-Right Hand Rack

In the version #2 and #3 rack setup, the side-intermediate racks could be removed for loading without removing other racks. In the version #3 rack setup, the rear right hand rack could be removed for loading without removing the rear left hand rack.

The side style connections were 4-7/8" long with a "dog leg" bend toward the hooked end, which allowed the connections to interlock. The corner style connections were 4" long with a right angle bend toward the hooked end. These corner style connections were basically side style connections but with a right angle bend rather than a "dog leg" bend.

Each connection was attached to the outside/upper rack board using three 5/16-18 x 1-3/8" carriage bolts, lock washers, and square nuts. The lock washers and nuts were the same parts which were used for the attachment of the floor side sills and floor boards to the platform. As with many of the fasteners used in the Model A/AA era, these lock washers and nuts can not be found as new stock items. The original style hardware is shown in illustration #7

**Illustration #7:
Connection Attachment Hardware**



5/16-18 (1/4 x 9/16) square nut (chamfered one side)
5/16 (3/23 x 23/32) lock washer

Illustration #8 : AA-88308 and AA-88309 Stake Rack Connections

(scale 1/2" = 1")

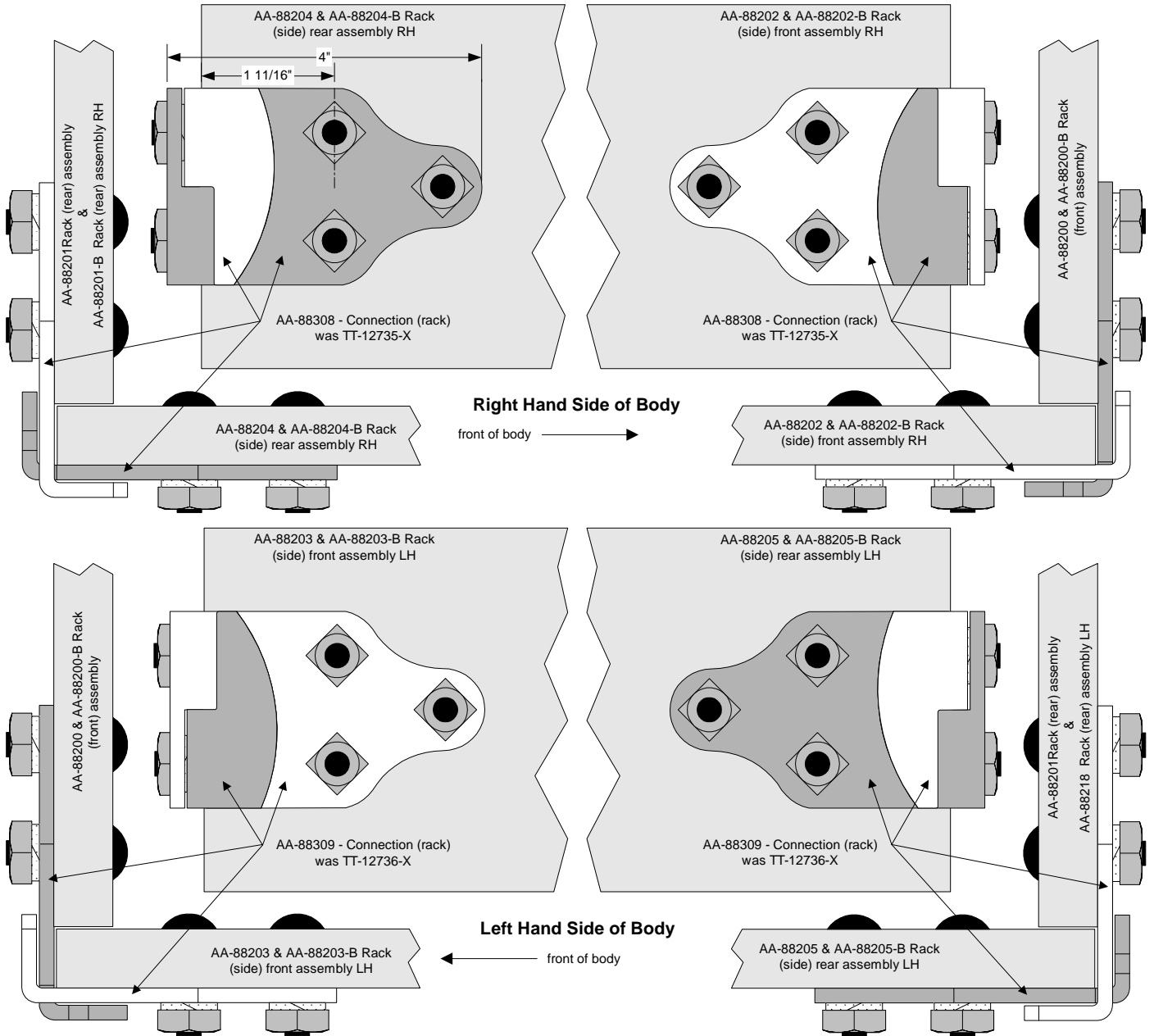


Illustration #9: AA-88250 Front Stake Rack to Cab Anti-rattler (was TT-12758-X)

(scale 1/2" = 1") as viewed from the cab side of the board

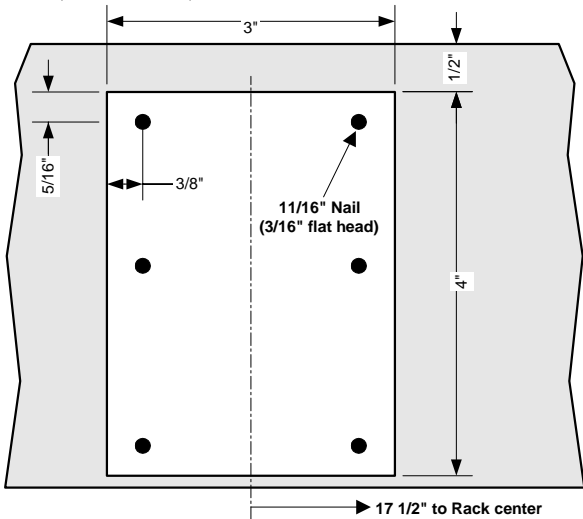


Illustration #10: AA-88215 Front Stake Rack,

Upper Board Assembly Panel

(scale 1/2" = 1")

showing board installation and panel cross section

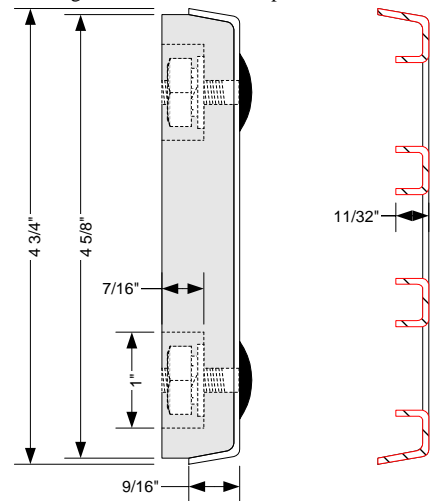
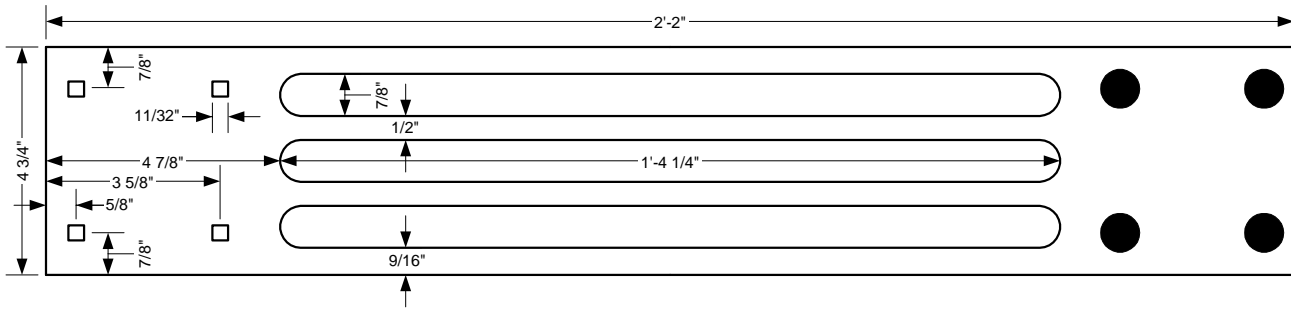


Illustration #11: AA-88215 Front Rack Upper Board Panel

(scale 1-4" = 1")

as viewed from the back of the platform body



Rack Assemblies

The initial stake racks were direct 1925/1926 TT carry over parts. By mid 1928, when platform version #3 was placed into production, almost all rack parts had been modified. The front stakes, connections, and the front rack lower and center boards were the only parts left unmodified.

The initial AA-88200 front rack assembly consisted of two stakes, three cross boards, two corner connections and two rack-to-cab anti-rattlers. The top of the rack covered the bottom 1" of the closed cab's rear window.

The two anti-rattlers were attached to the upper rack board as shown in illustration #9. These 1/4" thick felt pads prevented the upper board from rattling against the cab.

The closed cab's 6-1/2" high rear window was lowered by 4" in early to mid 1928. This resulted in the upper rack board covering 5" of the window. Consequently, the upper rack board was modified to be an assembly consisting of a stamped steel viewing panel with 25-3/8" long cross boards bolted to each end of the panel. This three piece assembly was the same total length as the prior upper rack board. The AA-88215 panel had three 7/8" by 16-1/4" horizontal viewing slots. Illustrations #10 and #11 show this panel.

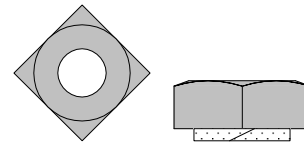
The initial side racks consisted of only two racks per side. These four racks were identical in size. Separate part numbers were require for these rack assemblies due to the different connections used for each rack. Starting in early 1928, the version #2 stake racks were placed into production. This version included three side racks per side. The four side-front and side-rear racks were identical except for connection hardware attached. The two identical intermediate racks could be removed for loading purposes without removal of other racks. The version #3 stake racks used the same side rack setup as version #2.

The first rear rack was a single unit. It was used for both version #1 and #2 stake racks. Prior to the change over to the version #3 stake racks, some of these single unit rear racks came with the AA-88233 rear locking stake as the center stake. Starting in mid 1928, the version #3 stake racks were placed into production. This version included two rear stake rack assemblies. The right hand rack included the AA-88233 rear locking stake.

Rack boards were attached to each stake with 1/4-20 x 1-1/4 step bolts, lock washers, and square nuts. Illustration #12 shows the original style nut. Dimensions of the cross boards are listed

in the table below.

Illustration #12: Rack Cross Board Attachment Hardware



1/4-20 (1/4 x 1/2) square nut
(chamfered one side)

1/4 (1/16 x 1/2) lock washer

Rack Board Dimensions

#	Part #	Board Description	Dimensions all 3/4 thick
1	AA-88270	Front Rack - lower (was TT-12750-BX)	7-3/4 x 68
1	AA-88271	Front Rack - center (was TT-12751-BX)	4-5/8 x 68
1	AA-88272	Front Rack - upper (was TT-12752-BX)	4-5/8 x 68
2	AA-88???	Front Rack - upper	4-5/8 x 25-3/8
4	AA-88255	Side Racks -lower (was TT-12744-BX)	7-3/4 x 49-1/2
4	AA-88259	Side Racks -center (was TT-12745-BX)	4-5/8 x 49-1/2
4	AA-88263	Side Racks -upper (was TT-12746-BX)	4-5/8 x 49-1/2
4	AA-88255-B	Side Racks (front and rear) - lower	7-3/4 x 28-1/4
4	AA-88259-B	Side Racks (front and rear) - center	4-5/8 x 28-1/4
4	AA-88263-B	Side Racks (front and rear) - upper	4-5/8 x 28-1/4
2	AA-88209	Side Racks (intermediate) - lower	7-3/4 x 41-1/2
2	AA-88211	Side Racks (intermediate) - center	4-5/8 x 41-1/2
2	AA-88213	Side Racks (intermediate) - upper	4-5/8 x 41-1/2
1	AA-88267	Rear Rack - lower (was TT-12747-BX)	7-3/4 x 68
1	AA-88268	Rear Rack - center (was TT-12748-BX)	4-5/8 x 68
1	AA-88269	Rear Rack - upper (was TT-12749-BX)	4-5/8 x 68
2	AA-88267-B	Rear Racks - lower	7-15/16x33-3/4
2	AA-88268-B	Rear Racks - center	4-5/8 x 33-3/4
2	AA-88269-B	Rear Racks - upper	4-5/8 x 33-3/4

134-A STOCK RACKS DETAIL

Very little information has been found regarding the stock racks. Without an original set of one of these units, detailed drawings can not be produced. The stock rack truck photograph, shown at the end of this article, is one of only three known photographs.

The May 16, 1930 service letter announces the assignment of body model numbers. This letter lists the Stock Racks as body model 134-A and that this unit's part number group was 134000-134499. Of those parts books seen, the stock racks are not listed.

In volume 15 issue 5 of "The Restorer" there is an article titled "The Ford Truck - Beginning to 1930" by Vernon W. Vogel. This article indicates that stock racks were offered at \$40 and that the Sales Department provided the following stock racks specification:

These sides are entirely of wood, only the highest grade of hard wood being used. Cross boards are 3/4 inch thick and are securely bolted to heavy wooden stakes. Side racks are in one piece as is also the front rack. The rear end rack is in two pieces for easy handling in loading and unloading. Top corners of all racks are securely held in place by steel clamps which fit securely as the sides are dropped into place. Dimensions are as follows: Height 4 feet, Width 5 feet 8 inches, Length 8 feet 1-1/2 inches. Color: Commercial Green

The stock racks drawing, shown at the end of this article, is found in a sales booklet titled "The New Ford" which covered the 1929 A's and AA's. This 47 page booklet contains a twelve page section titled

"The Model AA Truck". The drawing incorrectly shows the rear rack as only one unit rather than two, as indicated in the Ford sales specifications above. On page 70 of the James K. Wagner book titled "Ford Trucks Since 1905" there is a Ford Archives photograph of the a Stock Truck. This 3/4 rear view clearly shows two rear racks which used the same connections as the stake racks.

Based on the stock truck photograph shown at the end of this article, the following observations can be made. The four upper cross boards appear to be the same height as the stake racks' upper two boards. Similarly the lower cross board on the stock and stake racks look like the same height. The two front stakes are taller versions of the front stakes used for the stake racks. The side and rear stakes have a taper from the platform pocket to the top. These stakes are probably the same thickness from top to bottom. Consequently, the cross board mounting bolts could have been the same length for all boards. The rack corner connections are the same as those used for the stake racks. The number three front cross board covers the top of the cab's rear window. This is a solid cross board and does not include the AA-88215 viewing panel which was used on the stake racks. The side includes two brackets bolted to the bottom cross board and to the platform floor side member. These brackets appear to be the same as those used for the grain sides.

It would seem logical that the rear racks would have been secured in some way to prevent live stock from lifting the rack.

134-B GRAIN SIDES DETAIL

Like the stock racks, very little Ford documentation has been found for this 88-A platform equipment. The May 16, 1930 service letter lists Grain Sides as body model number 134-B for part number group 134500-134999. However, the parts books do not list this part number range.

Vernon W. Vogel's article indicates that grain sides were offered at \$35 and that the Sales Department provided the following grain sides specification:

These sides are built of 3/4 inch hard wood closely fitted and bolted to steel stakes fitting securely in the Platform Body sockets. Both sides and ends are in one piece. The sides are bolted to the floor with two steel brackets on each side. The ends are held with tie rods running from one side to the other, the rods passing under clips on each end to insure holding them in place. The rear end is equipped with a specially built dump door, which breaks in the middle, being held in place by a strong clasp when closed. Measurements are as follows: Height 20 inches, Width 5 feet 8 inches, Length 6 feet 1-1/2 inches. Color: Commercial Green

The Ford Archives photograph shown in the previous "AA Truck Talk" article titled "The 88-A Platform Body" is one of three known to exist. It should be noted that the side racks were installed on the wrong sides of the platform in this photograph. There should be one tie rod at the rear and two at the front!

The grain sides drawing, shown in the "The 88-A Platform Body" article, is found in the same sales booklet as indicated above for the stock racks. The dump door drawing is incorrectly shown with the two hinges on the outside of the dump door. This would not allow the door to be opened!

Two original sets of these grain sides have been used to produce the following details. Note that all part numbers (except one) and all part names have been assigned in this article to allow for cross reference purposes. The real numbers and names are unknown.. The one exception is the dump door clasp which has AA-134655 on this cast part.

Stakes

Like the stake racks, there were two designs of stakes used for each set of grain sides. The front rack used flat, strap-metal stakes. The side and rear stakes were of a stamped steel design.

The two front stakes were shorter versions of the corresponding front stakes of the stake racks. Illustration #13 shows details of this stake.

The side and rear stakes were similar to the corresponding stakes used on stake racks. The major differences were that the grain sides stake was only 23-3/16" tall and the top end was closed. The closed top end design eliminated sharp edges which might otherwise damage canvas covers used to protect loads of grain.

Unlike the stake racks stake, the AA-134501 grain side stake did not include a reinforcement at the pocket end. This

stake was 1/4" thinner at the top giving it a tapered profile. The stake's width was 3" but the extruded stamping was tapered. The extruded stamping was slightly thicker than the stake rack stake. Illustration #13 shows AA-134501 stake details.

Stakes	
2 AA-134500	Stake (front)
	Boards to front Stakes - attachment
12	1/4-20 X 1-1/2 (1/8 x 13/16 head) step bolt
12	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
12	1/4 (1/16 x 1/2) lock washer
14 AA-134501	Stake (side and rear)
	Boards to side and rear Stakes - attachment
160	1/4-20 X 1-1/4 (1/8 x 13/16 head) step bolt
8	1/4-20 X 1-3/4 (1/8 x 13/16 head) step bolt
168	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
168	1/4 (1/16 x 1/2) lock washer
Tie Rods	
3 AA-134502	Rod (tie)
6 AA-134503	Clip (tie rod retainer)
	Tie Rod Retainer Clip to front and rear Racks - attachment
12	#10 x 3/4 flat head wood screw
3 AA-134504	Bushing (tie rod)
3 AA-134505	Nut (tie rod)
	Tie Rod Bushing and Nut to side Racks - attachment
12	#10 x 3/4 flat head wood screw
Front Grain Sides Rack	
1 AA-134510	Rack (front) assembly
1 AA-134700	Board (rack) front - lower
1 AA-134701	Board (rack) front - center
1 AA-134702	Board (rack) front - upper
Side Grain Sides Rack	
1 AA-134520	Rack (side) front assembly RH
1 AA-134530	Rack (side) front assembly LH
2 AA-134703	Board (rack) side - lower
2 AA-134704	Board (rack) side - center
1 AA-134705	Board (rack) side - upper RH
1 AA-134706	Board (rack) side - upper LH
4 AA-134531	Retainer (front and rear rack)
	Retainer to side rack - attachment
20	1/4-20 X 1-1/4 flat head machine screw
20	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
20	1/4 (1/16 x 1/2) lock washer
4 AA-134532	Bracket (side rack to floor side sill)
	Bracket to side rack - attachment
8	1/4-20 X 1-1/4 (1/8 x 13/16 head) step bolt
8	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
8	1/4 (1/16 x 1/2) lock washer
	Bracket to platform - attachment
4	3/8-16 x ?? hex head bolt
4	3/8-16 (1/4 x 9/16) hex nut (chamfered one side)
4	3/8 (??/? x ??/?) lock washer
Rear Grain Sides Rack	
1 AA-134540	Rack (rear) assembly
2 AA-134707	Board (rack) rear - lower
2 AA-134708	Board (rack) rear - center
1 AA-134709	Board (rack) rear - upper
2 AA-134541	Retainer (dump door) inside
2 AA-134542	Retainer (dump door) outside
1 AA-134600	Door (rear rack dump) assembly
1 AA-134601	Board (dump door) lower RH
1 AA-134602	Board (dump door) lower LH
1 AA-134603	Board (dump door) upper RH
1 AA-134604	Board (dump door) upper LH
2 AA-134605	Cleat (dump door)
	Cleat to dump door - attachment
8	1/4-20 X 1-3/4 (1/8 x 13/16 head) step bolt

Rear Grain Sides Rack - continued	
8	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
8	1/4 (1/16 x 1/2) lock washer
7	1/4 (1/16 x 3/4) flat washer
2 AA-134606	Hinge (dump door)
	Hinge to lower/upper dump door boards - attachment
12	#10 x 3/4 flat head wood screw
1 AA-134608	Operator (dump door) board
	Operator board to dump door - attachment
2	1/4-20 X 2-3/4 (1/8 x 13/16 head) step bolt
1	1/4-20 X 2-1/2 (1/8 x 13/16 head) step bolt
2	1/4-20 X 2-1/2 (1/8 x 13/16 head) step bolt
5	1/4-20 (1/4 x 1/2) square nut (chamfered one side)
5	1/4 (1/16 x 1/2) lock washer
5	1/4 (1/16 x 3/4) flat washer
1 AA-134655	Clasp (dump door)
	Clasp to dump door - attachment
1	3/8-16 (1/4 x 11/16) hex head nut (Chamfered one side)
1	3/8 (1/16 x 7/8) flat washer
1	3/8 (3/32 x 5/8) lock washer
1	5/8 (3/32 x 1-1/4) flat washer
1 AA-134656	Plate (clasp striker)
	Clasp striker plate to Operator board - attachment
4	#10 x 3/4 flat head wood screw
1 AA-134657	Plate (clasp lock)

Tie Rods

The front and rear racks fit into retainers attached to each end of the side racks. Tie rods, which were basically long bolts, were used to tightly secure the front and rear racks. Two tie rods held the front rack and one tie rod was used for the rear rack. Each of the three 7/16" diameter by 70-1/2" long tie rods were inserted through an AA-134504 bushing located on the left side of the body. Each rod slid through two AA-134503 clips attached to the inside of the front or rear rack. Finally, the threaded end of each rod was screwed into an AA-134505 tie rod nut which was attached to the right side of the body. Tie rods were located 1-23/32", on center, from the outer edge of the side racks. The upper tie rods were located 2", on center, from the top of the side rack. The lower tie rod, at the front of the body, was located 10", on center, from the top of the side rack. The tie rod bushings, clips, and nuts were attached with #10 x 3/4 flat head slotted wood screws. Tie rod bushings and nuts were machined brass castings. Clips were stamped steel. Illustration #14 shows the various tie rod parts.

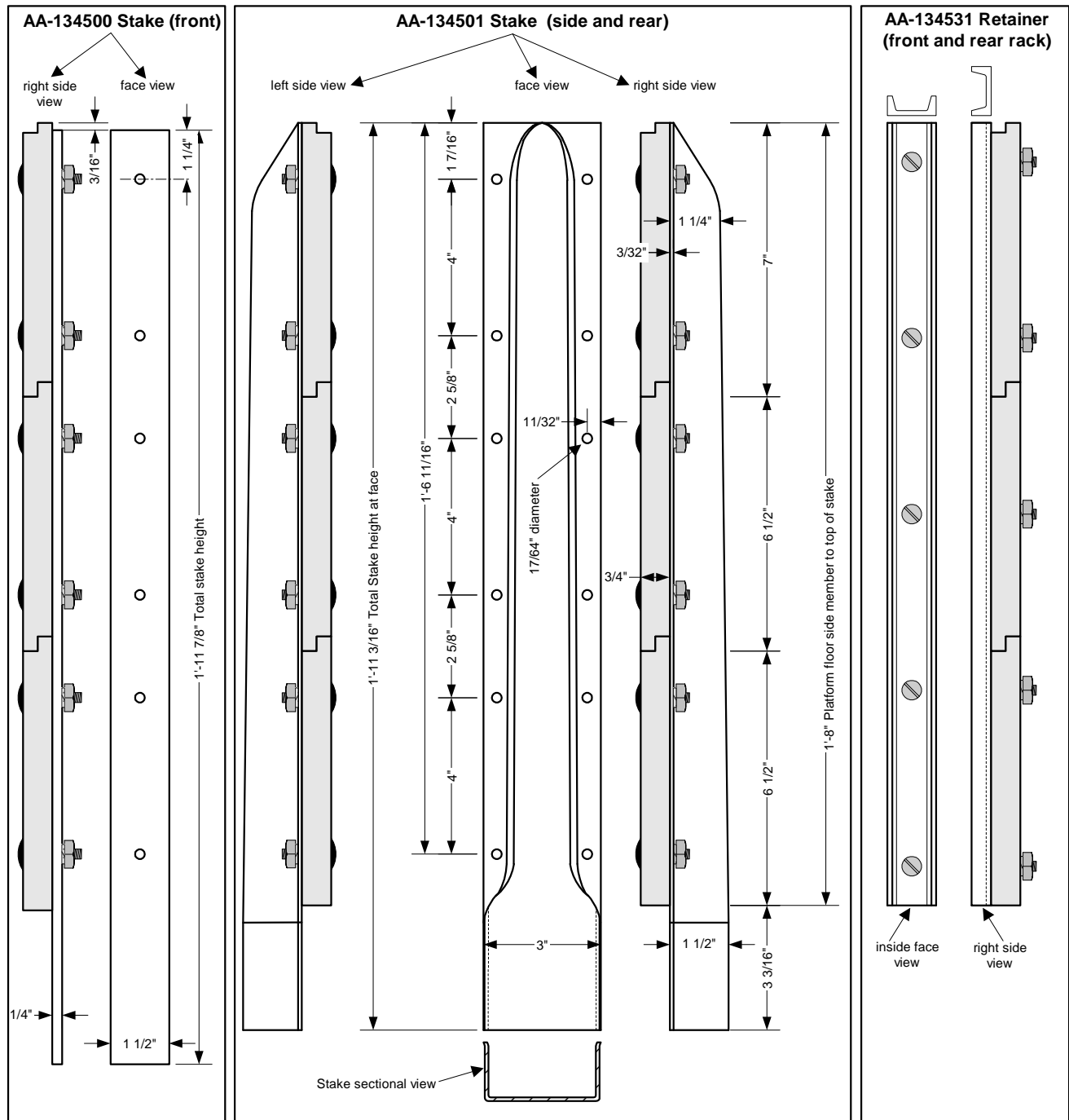
Rack Assemblies

The front rack assembly consisted of lower, center, and upper boards attached to two AA-134500 stakes. Two AA-134503 tie rod retainer clips were attached to each of the center and upper boards. The lower board was notched at each floor skid strip allowing the front rack to fit snug to the platform floor.

The side rack assemblies consisted of lower, center, and upper boards attached to six AA-134501 stakes. The lower board was the same part for each side. These boards had a 3/32" high x 1-9/16" wide notch at the bottom rear edge to allow clearance of the rear cross member. Consequently, the lower side boards fit flush with the platform floor side members. The center board was the same part for each side. The top boards of the side racks were right and left handed due to the placement of the notch at the top of the boards.

Illustration #11: Front Stake; Side and Rear Stake; Front and Rear Rack Retainer

(scale 1/4" = 1")



Attached to the inside front and inside rear of each side rack was an AA-134531 retainer which held the front and rear racks in place. Two AA-134532 brackets were used on each side to secure the racks to the platform floor side members. The side racks included the tie rod bushings and nuts as previously described. Illustration #13 shows cross sections of the boards attached to the right and left side racks. The AA-134531 retainer attachment to the side rack is also shown. Illustration #16 shows details of the AA-134532 bracket.

The rear rack was an assembly which included a removable dump door. A loaded truck, arriving at a granary, would be driven onto a front-wheel-lift. With the dump door removed, the front of the truck was raised causing the body to be emptied of grain.

Only the two outside stakes were used for the rear rack. The 10-1/4" long, lower and center boards extended from the side to the inside of the stakes. The top board ran the full 67-3/4" width of the opening and included two tie rod clips attached to the inside. The end result of this arrangement was a 13-1/2" high by 47-1/4" wide opening which was occupied by the dump door. Each end of the opening included an AA-134541 and an AA-134542 inside and outside dump door retainer as shown in illustration #21.

The dump door consisted of right and left hand sides of unequal length which were hinged on the inside. An AA-134807 operator board, attached to the left side of the dump door, allowed the door to be opened like a bi-fold closet door. Once the door was opened several inches, it cleared the

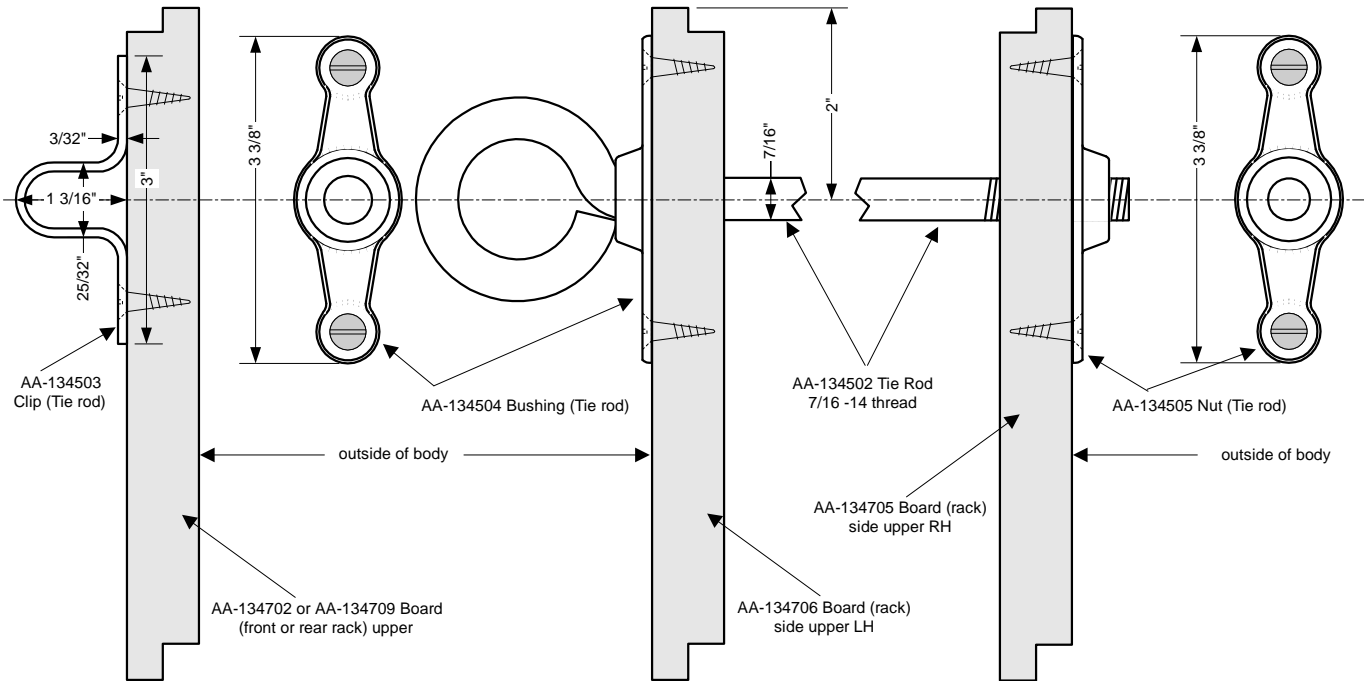
retainers attached to the rear rack and could be completely removed from the opening. Reinstalling the dump door was the reverse process. After holding the door loosely in the retainers, the operator board could be pushed inward to force the door closed. The right hand end of the operator board included a notch which allowed clearance for the AA-134655 clasp. Once the door was closed, the clasp could be rotated clockwise 90 degrees to hold the door in the closed position. The clasp could

be locked in place by running a pin, bolt, or wire through the holes in the AA-134657 lock plate and the clasp.

Illustration #1 shows the rear rack with dump door installed with the clasp in the closed position. Details of dump door parts are shown in illustrations #15, #17, #18, #19, and #20 below.

Illustration #14: Tie Rod Parts

(scale 1/2" = 1")



Rack Board Dimensions

#	Part #	Board Description	Dimensions all 3/4 thick
1	AA-134700	Front Rack - lower	7 x 67-3/4
1	AA-134701	Front Rack - center	6-7/8 x 67-3/4
1	AA-134702	Front Rack - upper	7 x 67-3/4
1	AA-134703	Side Racks -lower	6-7/8 x 99
2	AA-134704	Side Racks -center	6-7/7 x 99
1	AA-134705	Side Racks -upper RH	7 x 99
1	AA-134706	Side Racks -upper LH	7 x 99
2	AA-134707	Rear Rack - lower	7 x 10-1/4
2	AA-134708	Rear Rack - center	6-7/8 x 10-1/4
1	AA-134709	Rear Rack - upper	7 x 67-3/4
1	AA-134601	Dump Door - lower RH	7 x 29
1	AA-134602	Dump Door - lower LH	7 x 18-1/4
1	AA-134603	Dump Door - upper RH	6-7/8 x 29
1	AA-134604	Dump Door - upper LH	6-7/8 x 18-1/4

All boards had an overlapping or “ship lap” fit. The overlapping edge was 3/8” x 3/8”. The top edge of the upper boards had a 3/8” wide x 1/4” high notch which was positioned to the outside of the body.

The bottom edge of the lower boards was cut square. The two lower side boards had a 3/32” high x 1-9/16” wide notch at the bottom rear edge to allow clearance of the platform rear cross member where it overlapped the platform floor side member.

The bottom edge of the front lower board was notched at

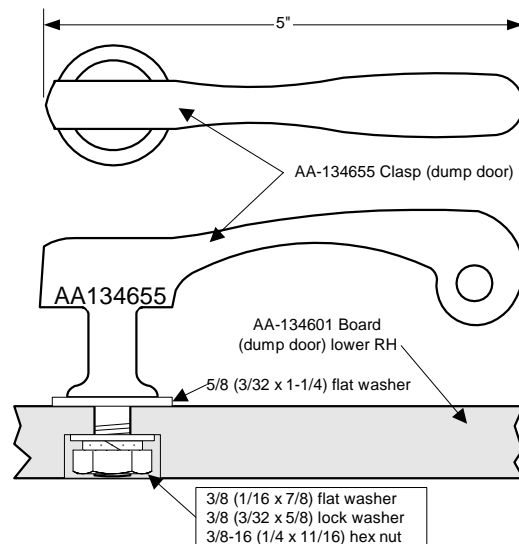
each floor skid strip to allow it to fit flush with the platform floor boards.

The lower boards on the front rack, rear rack, and dump door extended down 1/8” lower than the lower side boards. This extra 1/8” allowed these boards to fit flush to the platform.

Illustrations #13 and #14 shows the board’s ship lap fit for the each rack.

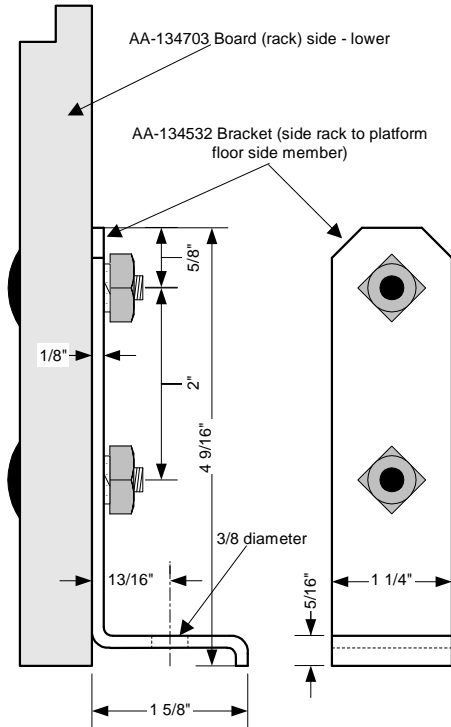
Illustration #15: Dump Door Clasp

(scale 1/2" = 1")



The dump door clasp, shown above, was a casting. It was the only part found with a part number. Illustrations #1 and #19 show the clasp in the closed position. It was opened by turning it counter clockwise 90 degrees. The hole in the handle allowed the clasp to be locked to the lock plate using a pin or wire.

Illustration #16: Side Rack to Platform Bracket
(scale 1/2" = 1")



Two of the brackets (shown above) were attached to the outside of each side rack's lower board. The brackets were bolted to the platform floor side members through factory drilled holes.

Illustration #17: Dump Door Clasp Striker Plate
(scale 1/2" = 1")

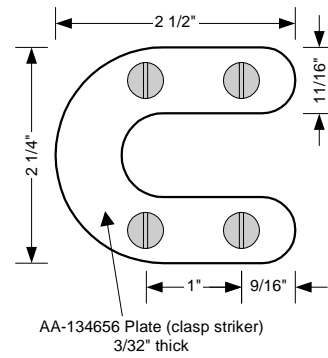
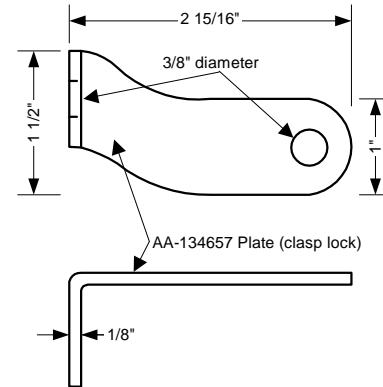


Illustration #18: Dump Door Lock Plate
(scale 1/2" = 1")



The dump door lock plate was designed with a "dog leg" style (shown above) to allow it to be attached at the dump door cleat's lower carriage bolt and to provide clearance between the clasp and the carriage bolt nut for opening and closing.

Illustration #19: Dump Door Assembly AA-134600
(scale 1/4" = 1")

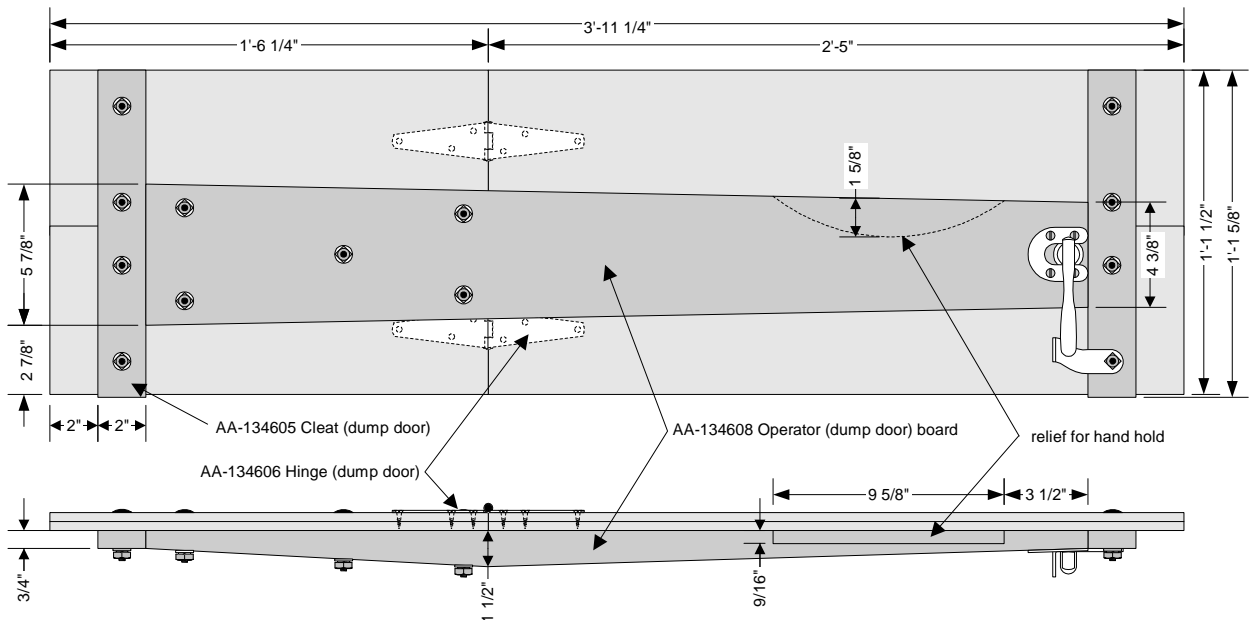


Illustration #19 shows rear and top views of the dump door in the closed position. The wooden cleat at each end of the door was attached with carriage bolts. The operator board was attached to the left door side with carriage bolts. This operator board had a unique shape: each end was a different height; the board was 3/4" thick at each end but was 1-1/2" thick where the right and left door sides joined; there was a relief for a hand hold so that the board could be pulled outwards when opening the door. The two hinges were attached to the inside of the door as shown. Illustration #20 shows AA-134606 hinge details. The clasp, striker plate, and lock plate are shown at the right end of the operator board. Details of these parts are found

in illustrations #15, 17, and 18.

Illustration #21 shows the dump door retainers. A pair of these retainers was attached to the rear rack at each end of the dump door opening. The outside retainer was attached to the outside of the rear stake as shown in illustration #1. The inside retainer was attached to the inside of the rear rack boards. The four lower carriage bolts, used to attach the rack boards to stakes, were also used to secure the retainers. The retainers formed a 9/16" deep x 3/4" wide slot at each end of the dump door opening. When the dump door was installed, it was forced into these slots by pushing the operator board closed.

Illustration #20: AA-134606 Dump Door Hinge
(scale 1/2" = 1")

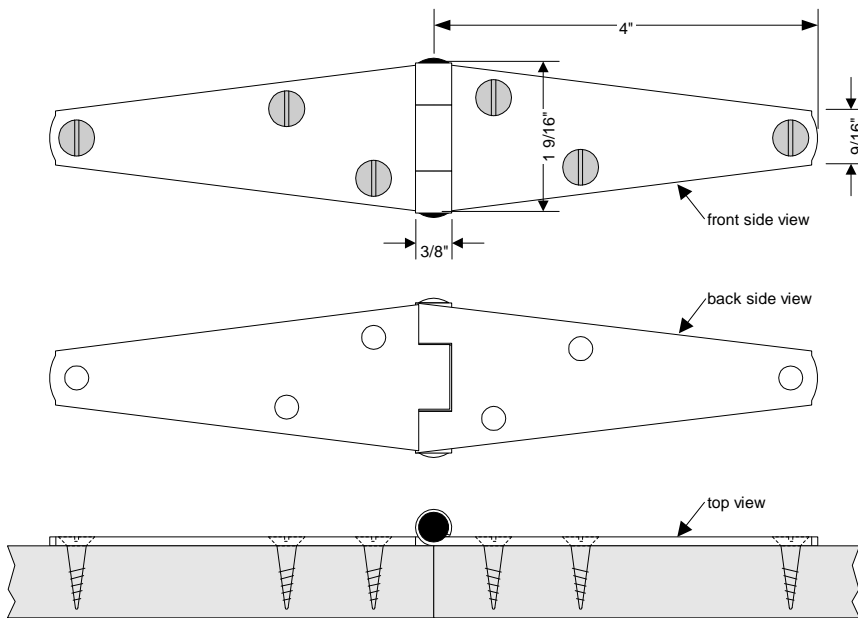
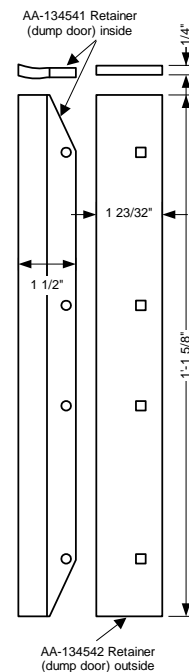


Illustration #21: Dump Door Retainers
(scale 1/4" = 1")



Correction Information 12/24/99 - 188-A Stake Racks

Thanks to information received from club members and further investigation, a few corrections have been made to this article on 12/24/99. These corrections are as follows.

- ◇ Front Stake Pockets - These pockets had tabs which made the front stake fit snugly. The front stake did not bottom out in this pocket as previously stated. Consequently, the front rack's bottom board would have bottomed out on the top of the platform floor. Correction noted by Carl Smith. Correction made to page 5.
- ◇ Connectors - Illustration #8 incorrectly shows the direction of the connectors for the right front corner. The connectors should be installed so that the right side-front rack is installed after the front rack. Correction noted by Carl Smith. Correction made to page 7.
- ◇ Rack Boards - The table showing the rack board dimensions incorrectly showed some upper and center boards as 5-5/8" high. All upper and center boards were the same 4-5/8" height. Correction noted by Carl Smith. Correction made to page 8.
- ◇ AA-88250 Front Stake Rack to Cab Anti-rattler - Illustration #9 showed incorrect dimensions for this felt pad. It should be 3" wide by 4" high. Correction noted by Giles vanHees. Correction made to page 7.