

AA TRUCK TALK – AA MUFFLER INSTALLATIONS

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Muffler Installations Overview

This article covers the eight different AA muffler installations. A muffler installation includes inlet pipe clamps, muffler with integrated or separate outlet pipe, and support brackets/adapters.

The AA muffler installations described below are broken down by the three AA wheel base chassis (AA131, AA157, and the late 1931 AA112). Each of these AA chassis used different muffler installations.

While all AA muffler installations used unique bracket supports and/or adapters, the standard A-5230 passenger vehicle muffler was used on the majority of AA131's. Only the AA131 closed body types, starting in April 1931, were fit with an AA muffler and separate outlet pipe. All of the AA157 installations used muffler AA-5230 which was the same as the A muffler but had no outlet pipe. The AA112 Standdrive chassis used muffler AA-5231 which had a unique integrated inlet pipe and no outlet pipe.

The two A-5251 muffler inlet pipe clamps were unchanged throughout production. These clamped the inlet pipe to the exhaust manifold and were used on both the A and AA. The mounting hardware was as follows:

Through mid 1929:

- (2) A-20924 - 3/8-24 1-15/16 chamfered hex. head bolt
- (2) A-21752 - 3/8-24 single chamfered brass hex. nut

Starting mid 1929:

- (2) A-20955 - 3/8-16 1-15/16 chamfered hex. head bolt
- (2) A-21752 - 3/8-16 single chamfered brass hex. nut

AA131 Muffler Installations (3)

Figure 1 shows details of AA131 muffler installation 1. This installation included the A-5230 muffler with its integrated inlet and outlet pipes. The one outlet pipe bracket had two different designs as shown in figure 1. The bracket was bolted to the inside face of the frame (castle nuts to the outside of the frame).

Figure 1 - AA131 Muffler Installation 1

Through February 1930 - all body types

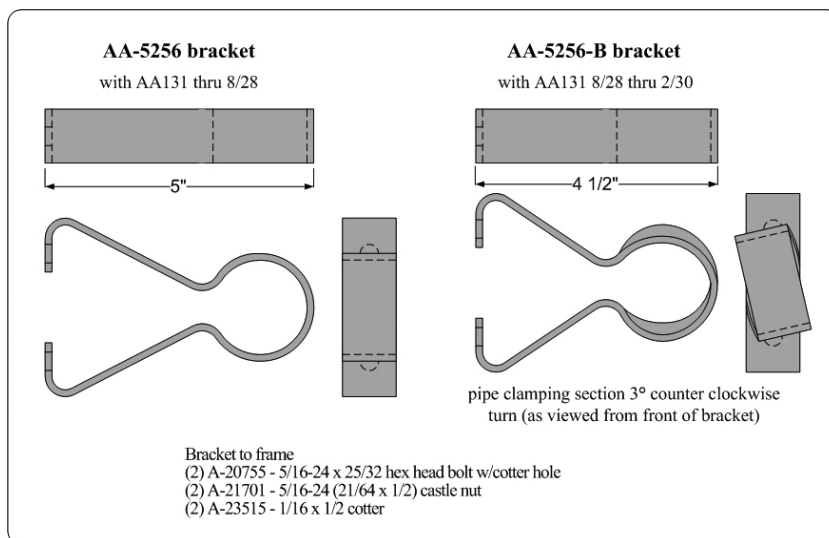
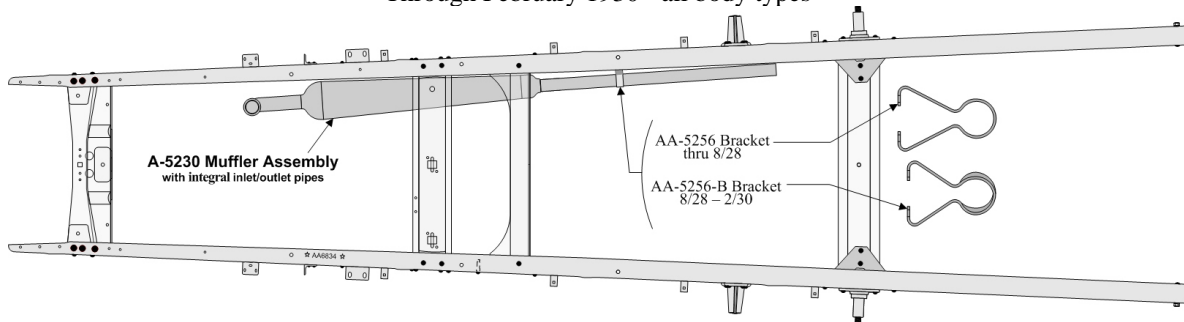
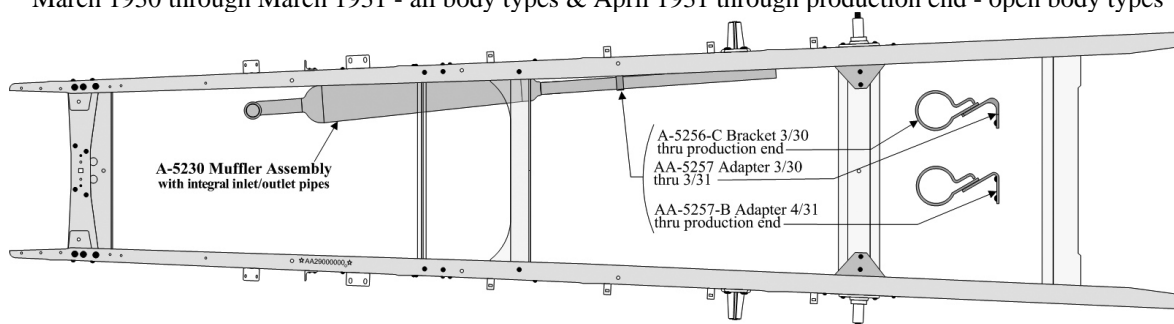


Figure 2 shows details of AA131 muffler installation 2. This installation also included the A-5230 muffler. Starting in March 1930 an adapter was riveted to the inside face of the frame to allow the A-5256-C muffler clamp to be used (i.e. same clamp used on the A).

Figure 2 - AA131 Muffler Installation #2

March 1930 through March 1931 - all body types & April 1931 through production end - open body types



AA-5257 and AA-5257-B adapters & A-5256-C bracket

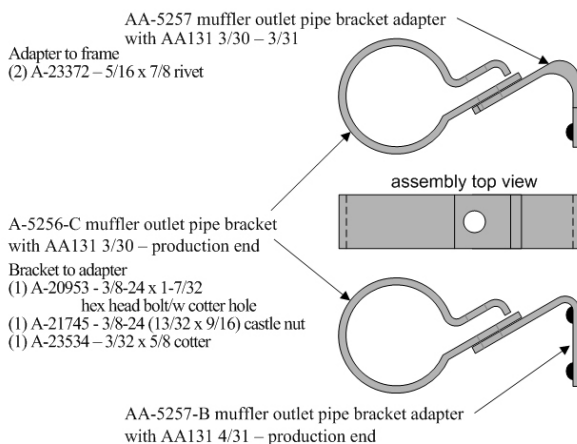
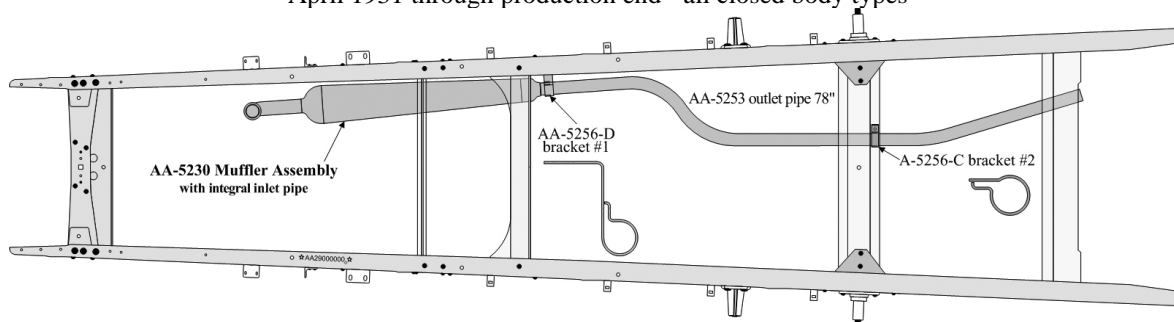


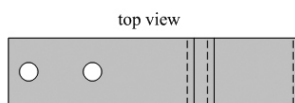
Figure 3 shows details of AA131 muffler installation 3 which was used with closed bodied AA's starting in April 1931. This installation included the AA-5230 muffler which was like the A muffler but had no integral outlet pipe. A separate 78" long outlet pipe AA-5253 was used with this installation. Bracket AA-5256-D was attached to the bottom side of the frame side member and was used to clamp the outlet pipe to the muffler. The A-5256-C bracket (as used on the A vehicles) was used to support the outlet pipe at the #4 frame cross member.

Figure 3 - AA131 Muffler Installation 3

April 1931 through production end - all closed body types



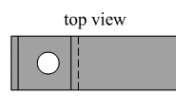
AA-5256-D bracket #1



Bracket to frame
(2) A-20763-S1 - 5/16-24 x 25/32 hex head bolt
(2) A-21702-S1 - 5/16-24 (17/64 x 1/2) hex nut
(2) A-22217 - 5/16 (3/32 x 37/64) lock washer

Brackets to pipe
A-20905 3/8-24 x 1 hex head clamp bolt
A-21741-S2 3/8-24 (21/64 x 9/16) hex head clamp nut
A-22245 3/8 (401-411) (3/32 x 21/32) clamp lock washer

A-5256-C bracket #2



Bracket to frame & pipe
(1) A-20969 - 3/8-24 x 1-1/4 hex head clamping bolt
(1) A-21741-S1 - 3/8-24 (21/64 x 9/16) hex nut
(1) A-22245 - 3/8 (401-411) (3/32 x 21/32) lock washer

AA157 Muffler Installations (4)

Figure 4 shows details of AA157 muffler installation 1. This installation was for the 1930 tapered AA157 frame. It was used for all cargo body types in mid 1930 and continued to be used for closed body types through December of 1930. Starting January 1931 (with the introduction of the AA157 parallel frame) closed body types used AA157 installation 3. This was the same as the #1 installation except for the #4 support bracket.

AA157 installation 1 included muffler AA-5230. A separate 133" long outlet pipe AA-5255-A was used with four support brackets.

The first bracket (AA-5226-C) clamped the outlet pipe to the muffler as well as supporting the rear of the muffler. This bracket was used for all of the other AA157 muffler installations.

The second bracket (AA-5258) supported the outlet pipe at the third frame cross member. Note the 22° angle of the bracket mounting flange which conformed to the bottom of the cross member. This same bracket was used for the AA157 3 and 4 installations.

The third bracket was A-5256-C (as used on the A vehicles) and it supported the outlet pipe at the fourth frame cross member.

The fourth bracket (AA-5259-A) supported the outlet pipe at the rear to the frame side member. The bracket mounting flange was angled 5° to conform to the slope of the bottom of the side member.

Figure 4 - AA157 Muffler Installation 1
with tapered frame
Mid 1930 - all body types
Through December 1930 - closed body types

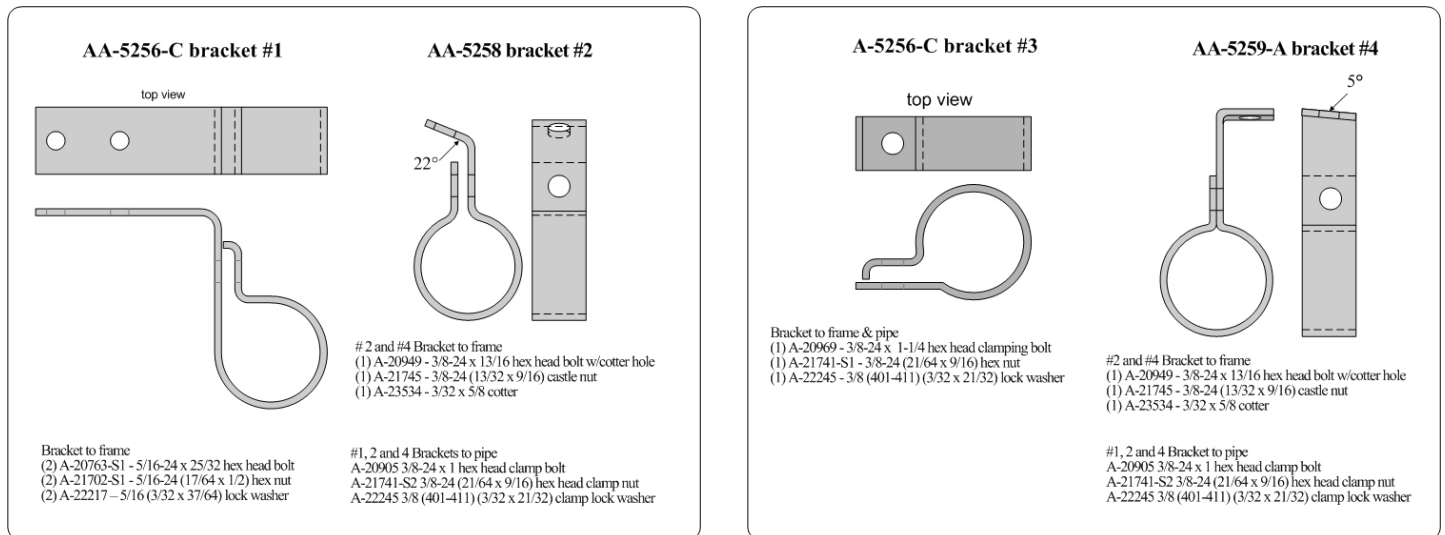
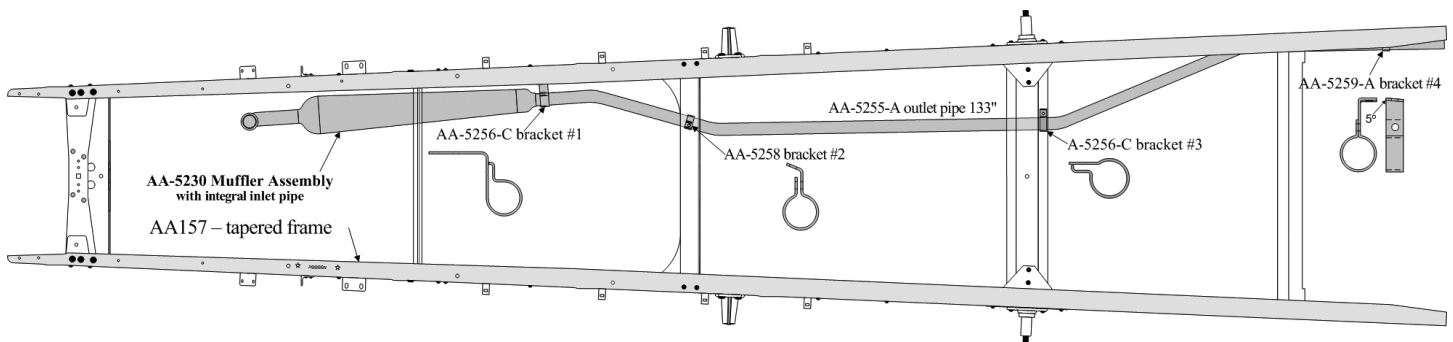


Figure 5 shows details of AA157 muffler installation 2. Also see figures 9 and 10 (end of article) for some examples. This installation was for open cargo bodied AA157 trucks. It was used for both the tapered and parallel AA157 frames from mid 1930 through production end.

AA157 installation 2 included muffler AA-5230. A separate 50" long outlet pipe AA-5255-B was used with two support brackets.

The first bracket (AA-5226-C) clamped the outlet pipe to the muffler as well as supporting the rear of the muffler. It was the same bracket used in all AA157 muffler installations.

The second bracket (AA-5259-B) supported the outlet pipe on the frame side member.

Figure 5 - AA157 Muffler Installation #2
with tapered and parallel frames
Mid 1930 - production end - open body types

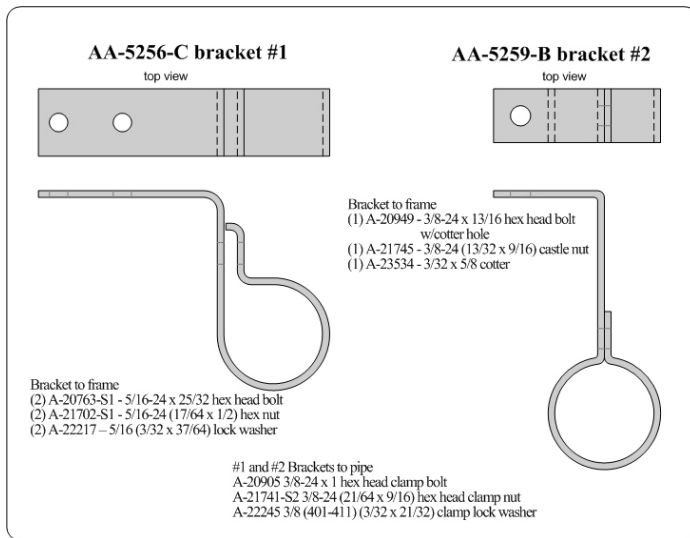
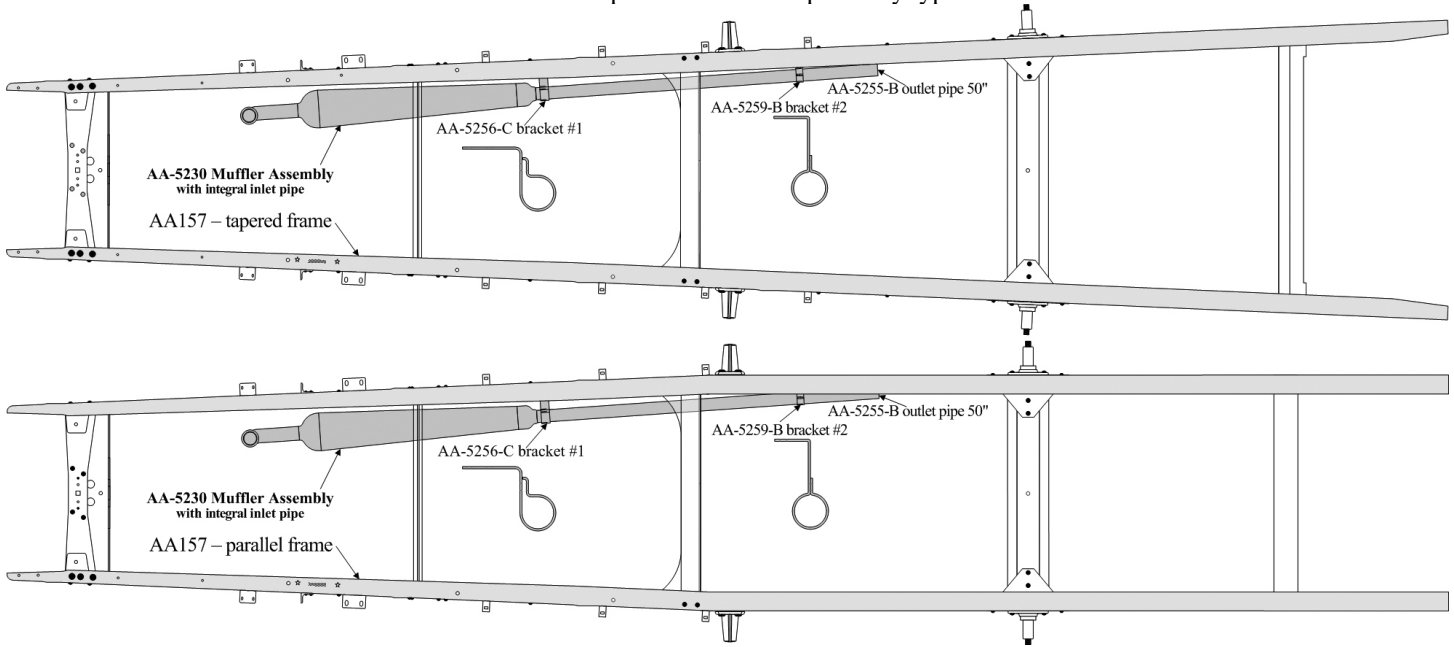


Figure 6 shows details of AA157 muffler installation 3. This installation was for closed bodied AA157 trucks. It was used through March 1931 with the parallel AA157 frame.

This installation included muffler AA-5230. A separate 133" long outlet pipe AA-5255-A was used with four support brackets. The outlet pipe was the same as the pipe used for AA157 installation 1 (see figure 4).

The first three brackets (AA-5256-C, AA-5228, A-5256-C) were the same as used for AA157 muffler installation 1 (see figure 4). The design of bracket four is currently unknown. It more than likely was a shorter version of bracket AA-5259-A but without the 5° angle of the mounting flange (refer to figure 4).

Figure 6 - AA157 Muffler Installation 3
with parallel frame
January through March 1931 - closed body types

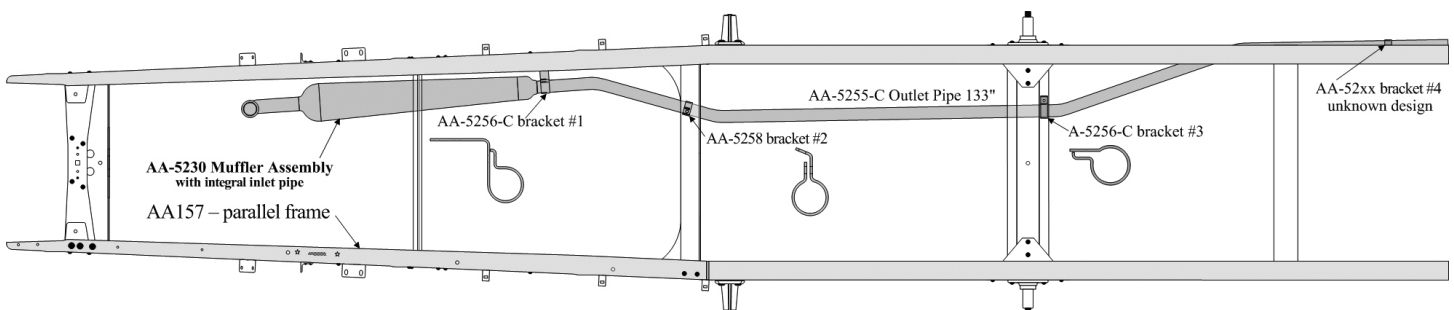


Figure 7 shows details of AA157 muffler installation 4. This installation was for closed bodied AA157 trucks. It was used from April 1931 through production end with the parallel AA157 frame.

This installation included muffler AA-5230. A separate 103" long outlet pipe AA-5255-D was used with three support brackets.

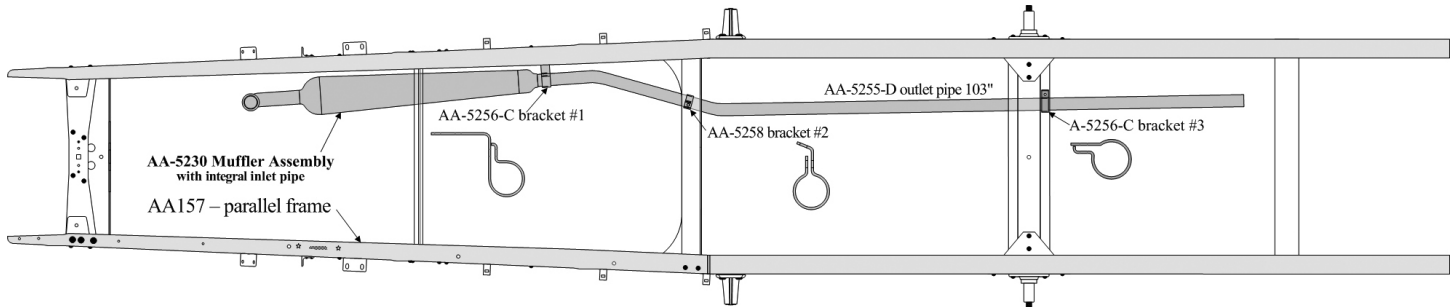
The support brackets were the same as used for AA157 muffler installation 1 (see figure 4).

Note that bracket AA-5228 to frame hardware changed to:

- A-20970-S1 3/8-24 x 3/4 hex head bolt
- A-21741-S1 3/8-24 (21/64 x 9/16) hex nut
- A-22245 3/8 (401-411) (3/32 x 21/32) clamp lock washer

Figure 7 - AA157 Muffler Installation 4 with parallel frame

April 1931 - production end - closed body types



AA112 Muffler Installation (1)

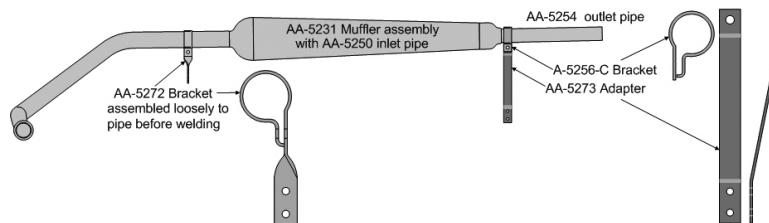
Figure 8 shows details of AA112 Standdrive chassis muffler installation. It was used for all AA112 production through July 1932. Also see figure 11 (end of article) for an AA112 example.

This installation included muffler AA-5231. It had an integral inlet pipe which placed the muffler outside of the frame to clear

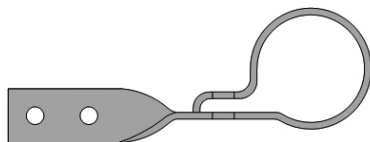
the drop down section of the chassis. The separate outlet pipe AA-5254 was approximately 24" long.

Two support brackets and a bracket adapter was used for this installation. The AA-5272 inlet pipe bracket was part of the muffler assembly. The engineering drawing specified that this bracket was to be loosely installed on the inlet pipe before welding. Once the muffler was installed in the frame, the clamping bolt could be tightened.

Figure 8 - AA112 Muffler Installation



AA-5272 bracket with AA112



- Bracket to pipe
A-20905 3/8-24 x 1 hex head clamp bolt
A-21741-S2 3/8-24 (21/64 x 9/16) hex head clamp nut
A-22245 3/8 (401-411) (3/32 x 21/32) clamp lock washer

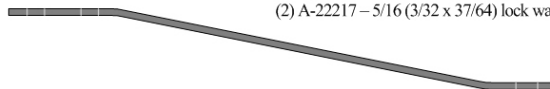


- Bracket to frame
(2) A-20763-S1 - 5/16-24 x 25/32 hex head bolt
(2) A-21702-S1 - 5/16-24 (17/64 x 1/2) hex nut
(2) A-22217 - 5/16 (3/32 x 37/64) lock washer

AA-5273 Muffler Outlet Pipe Bracket Adapter with AA112



- Adapter to frame
(2) A-20763-S1 - 5/16-24 x 25/32 hex head bolt
(2) A-21702-S1 - 5/16-24 (17/64 x 1/2) hex nut
(2) A-22217 - 5/16 (3/32 x 37/64) lock washer



A-5256-C Muffler Outlet Pipe Bracket top view



- Bracket to adapter
(1) A-20953 - 3/8-24 x 1-7/32 hex head bolt/w cotter hole
(1) A-21745 - 3/8-24 (13/32 x 9/16) castle nut
(1) A-23534 - 3/32 x 5/8 cotter



Parts Listing

AA131 Muffler Installation #1 Production Start - February 1930 - All cargo bodies (open and closed)	
1 A-5230	Muffler assembly with integral 34-1/4" outlet pipe
1 AA-5256	Muffler outlet pipe to frame bracket - production start - 8/28
1 AA-5256-B	Muffler outlet pipe to frame bracket - 8/28 - 2/30 bracket to frame - attachment
2 A-20755	5/16-24 x 25/32 hex head bolt w/cotter hole
2 A-21701	5/16-24 (21/64 x 1/2) castle nut
2 A-23515	1/16 x 1/2 cotter
AA131 Muffler Installation #2 March 1930 - Production End - Open cargo bodies	
1 A-5230	Muffler assembly with integral 34-1/4" outlet pipe
1 AA-5257	Muffler outlet pipe bracket adapter - 1/30 - 3/30
1 AA-5257-B	Muffler outlet pipe bracket adapter - 4/30 - production end Adapter to frame - attachment
2 A-23372	5/16 x 7/8 round head rivet
1 A-5256-C	Muffler outlet pipe to frame bracket bracket to adapter - attachment
1 A-20935-S1	3/8-24 x 7/8 hex head clamping bolt
1 A-21745-S1	3/8-24 (13/32 x 9/16) castle nut
1 A-23534	3/32 x 5/8 cotter
AA131 Muffler Installation #3 April 1931 - Production End - Closed cargo bodies	
1 AA-5230	Muffler assembly (without outlet pipe)
1 AA-5253	Muffler outlet pipe 78" long
1 AA-5256-D	Muffler outlet pipe to frame bracket - #1 (front) #1 (front) bracket to frame - attachment
2 A-20763-S1	5/16-24 x 25/32 hex head bolt
2 A-21702-S1	5/16-24 (17/64 x 1/2) hex nut
2 A-22217	5/16 (3/32 x 37/64) lock washer
	#1 (front) bracket to outlet pipe/muffler - attachment
1 A-20905-S1	3/8-24 x 1 hex head clamping bolt
1 A-21741-S2	3/8-24 (21/64 x 9/16) hex nut
1 A-22245-S2	3/8 (401-411) (3/32 x 21/32) lock washer
1 A-5256-C	Muffler outlet pipe bracket - #2 (rear) #2 (rear) bracket to frame #4 cross member - attachment
1 A-20969	3/8-24 x 1-1/4 hex head clamping bolt
1 A-21741-S1	3/8-24 (21/64 x 9/16) hex nut
1 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
AA157 Muffler Installation #1 (with tapered frame) Production Start - November 1930 Closed cargo bodies	
1 AA-5230	Muffler assembly - AA-157
1 AA-5255-A	Muffler outlet pipe 133" long - AA-157
1 AA-5256-C	Muffler outlet pipe to frame bracket - #1 (front) - AA-157 #1 (front) bracket to frame - attachment
2 A-20763-S1	5/16-24 x 25/32 hex head bolt
2 A-21702-S1	5/16-24 (17/64 x 1/2) hex head nut
2 A-22217	5/16 (3/32 x 37/64) lock washer
1 AA-5258	Muffler outlet pipe to #3 cross member bracket #2 - AA-157 #2 bracket to #3 cross member - attachment
1 A-20949	3/8-24 x 13/16 hex head bolt w/cotter hole
1 A-21745	3/8-24 (13/32 x 9/16) castle nut
1 A-23534	3/32 x 5/8 cotter
1 A-5256-C	Muffler outlet pipe to #4 cross member bracket #3 - AA-157 #3 bracket to #4 cross member - attachment
1 A-20969	3/8-24 x 1-1/4 hex head clamping bolt
1 A-21741-S1	3/8-24 (21/64 x 9/16) hex nut
1 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
1 AA-5259-A	Muffler outlet pipe to frame bracket #4 (rear) - AA-157 #4 (rear) bracket to frame - attachment
1 A-20949	3/8-24 x 13/16 hex head bolt w/cotter hole
1 A-21745	3/8-24 (13/32 x 9/16) castle nut
1 A-23534	3/32 x 5/8 cotter
	#1, 2 and 4 brackets to outlet pipe - attachment
4 A-20905	3/8-24 x 1 hex head clamp bolt
4 A-21741-S2	3/8-24 (21/64 x 9/16) hex head clamp nut

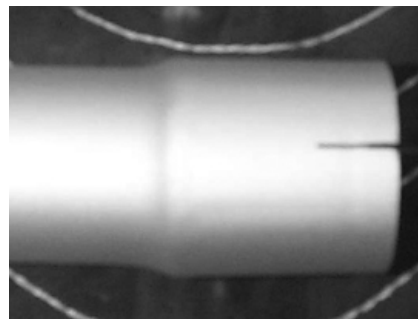
4 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
AA157 Muffler Installation #2 (with tapered and parallel frame) Mid 1930 - production end - Open body types	
1 AA-5230	Muffler assembly - AA-157
1 AA-5255-B	Muffler outlet pipe 50" long - AA-157
1 AA-5256-C	Muffler outlet pipe to frame bracket - #1 (front) - AA-157 #1 (front) bracket to frame - attachment
2 A-20763-S1	5/16-24 x 25/32 hex head bolt
2 A-21702-S1	5/16-24 (17/64 x 1/2) hex head nut
2 A-22217	5/16 (3/32 x 37/64) lock washer
1 AA-5259-B	Muffler outlet pipe to frame bracket - #2 (rear) - AA-157 #2 (rear) bracket to frame - attachment
1 A-20949	3/8-24 x 13/16 hex head bolt w/cotter hole
1 A-21745	3/8-24 (13/32 x 9/16) castle nut
1 A-23534	3/32 x 5/8 cotter
	Front and Rear bracket to outlet pipe - attachment
2 A-20905	3/8-24 x 1 hex head clamp bolt
2 A-21741-S2	3/8-24 (21/64 x 9/16) hex head clamp nut
2 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
AA157 Muffler Installation #3 (with parallel frame) January through March 1931 - production end - Closed cargo bodies	
1 AA-5230	Muffler assembly - AA-157
1 AA-5255-A	Muffler outlet pipe 133" long - AA-157
1 AA-5256-C	Muffler outlet pipe to frame bracket - #1 (front) - AA-157 #1 (front) bracket to frame - attachment
2 A-20763-S1	5/16-24 x 25/32 hex head bolt
2 A-21702-S1	5/16-24 (17/64 x 1/2) hex head nut
2 A-22217	5/16 (3/32 x 37/64) lock washer
1 AA-5258	Muffler outlet pipe to #3 cross member bracket #2 - AA-157 #2 bracket to #3 cross member - attachment
1 A-20949	3/8-24 x 13/16 hex head bolt w/cotter hole
1 A-21745	3/8-24 (13/32 x 9/16) castle nut
1 A-23534	3/32 x 5/8 cotter
1 A-5256-C	Muffler outlet pipe to #4 cross member bracket #3 - AA-157 #3 bracket to #4 cross member - attachment
1 A-20969	3/8-24 x 1-1/4 hex head clamping bolt
1 A-21741-S1	3/8-24 (21/64 x 9/16) hex nut
1 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
1 AA-52??	Muffler outlet pipe to frame bracket #4 (rear) - AA-157 #4 (rear) bracket to frame - attachment
1 A-20949	3/8-24 x 13/16 hex head bolt w/cotter hole
1 A-21745	3/8-24 (13/32 x 9/16) castle nut
1 A-23534	3/32 x 5/8 cotter
	#1, 2 and 4 brackets to outlet pipe - attachment
4 A-20905	3/8-24 x 1 hex head clamp bolt
4 A-21741-S2	3/8-24 (21/64 x 9/16) hex head clamp nut
4 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
AA157 Muffler Installation #4 (with parallel frame) April 1931 - production end - Closed body types	
1 AA-5230	Muffler assembly - AA-157
1 AA-5255-D	Muffler outlet pipe 103" long - AA-157
1 AA-5256-C	Muffler outlet pipe to frame bracket - #1 (front) - AA-157 #1 (front) bracket to frame - attachment
2 A-20763-S1	5/16-24 x 25/32 hex head bolt
2 A-21702-S1	5/16-24 (17/64 x 1/2) hex head nut
2 A-22217	5/16 (3/32 x 37/64) lock washer
	#1 (front) bracket to outlet pipe/muffler - attachment
1 A-20905	3/8-24 x 1 hex head clamp bolt
1 A-21741-S2	3/8-24 (21/64 x 9/16) hex head clamp nut
1 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
1 AA-5258	Muffler outlet pipe bracket - #2 (center) - AA-157 #2 (center) bracket to frame #3 cross member - attachment
1 A-20970-S1	3/8-24 x 3/4 hex head bolt
1 A-21741-S1	3/8-24 (21/64 x 9/16) hex nut
1 A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
	#2 (center) bracket to outlet pipe - attachment
1 A-20935-S1	3/8-24 x 7/8 hex head clamp bolt
1 A-21741-S2	3/8-24 (21/64 x 9/16) hex nut

1	A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer
1	A-5256-C	Muffler outlet pipe bracket – #3 (rear) – AA-157 #3 (rear) bracket to frame #4 cross member – attachment
1	A-20969	3/8-24 x 1-1/4 hex head bolt
1	A-21741-S1	3/8-24 (21/64 x 9/16) hex nut
1	A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer

AA112 Muffler Installation		
All production through July 1932		
1	AA-5231	Muffler assembly with integral inlet pipe
1	AA-5254	Muffler outlet pipe approximately 24" long – AA-112
1	A-5272	Muffler inlet pipe to frame bracket bracket to frame – attachment
2	A-20763-S1	5/16-24 x 25/32 hex head bolt
2	A-21702-S1	5/16-24 (17/64 x 1/2) hex head nut
2	A-22217	5/16 (3/32 x 37/64) lock washer bracket to inlet pipe – attachment
2	A-20905	3/8-24 x 1 hex head clamp bolt
2	A-21741-S2	3/8-24 (21/64 x 9/16) hex head clamp nut
2	A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer

1	AA-5273	Muffler outlet pipe bracket adapter Adapter to frame – attachment
2	A-20763-S1	5/16-24 x 25/32 hex head bolt
2	A-21702-S1	5/16-24 (17/64 x 1/2) hex head nut
2	A-22217	5/16 (3/32 x 37/64) lock washer
1	A-5256-C	Muffler outlet pipe to adapter bracket bracket to adapter – attachment
1	A-20969	3/8-24 x 1-1/4 hex head bolt
1	A-21741-S1	3/8-24 (21/64 x 9/16) hex nut
1	A-22245	3/8 (401-411) (3/32 x 21/32) clamp lock washer

Figure 9 - Example - Outlet Pipe (flange to fit AA muffler)



Ford Service Bulletin Error

Note that page 558 (April 1931 Service Bulletin) shows muffler installations as of that date. It contains some errors!

Figure 1157 has an incorrect picture for the AA-5258 bracket.

Figure 1158 has an incorrect picture of the support brackets. Each bracket is different from the one pictured.

Figure 1160 has an incorrect picture of the AA-5256-D bracket.

Figure 10 - Example - A157 Muffler Installation #2
with tapered and parallel frames
Mid 1930 - production end - open body types



Figure 11 Example - AA112 Muffler Installation

