

**TECHNICAL SERVICE BULLETIN
RAFNA RAILGEAR**

**DIESEL EXHAUST SYSTEM MODIFICATIONS,
2007 POST EMISSIONS, 2500/3500 CK PICKUP**

ISSUE DATE: December 11, 2007

TSB NUMBER: TSB174

HAZARD / URGENCY RATING

	DANGER - Physical harm is possible if TSB is not observed or followed
x	WARNING - Equipment damage is possible if TSB is not observed or followed
x	CAUTION - Essential issue affecting operation, service, parts or installation
	INFORMATIONAL - Advisory which may be of interest

APPLICABLE EQUIPMENT:

G&B Specialties R-290 Railgear installed on 2007 GMC/Chevy post emissions, *diesel* engines.

SUMMARY:

The attached guideline from GMC/Chevy, (*C/K 207 (43/53) w/LMM-Exhaust Systems, #ANB44495.19*), and (*General Instructions, page 13&14*), must be followed if any modifications are to be performed on the exhaust system.

IMPACT:

To insure that the Diesel Particulate Filter functions as it did before any modifications were performed to the exhaust system.

ACTION:

Any alterations to the exhaust system of GMC/Chevy, 2500/3500 CK Pickups, must follow the guidelines of (*C/K 207 (43/53) w/LMM-Exhaust Systems, #ANB44495.19*), and (*General Instructions, page 13&14*)

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FULL SIZE C/K HD PICKUPS AND CHASSIS-CABS

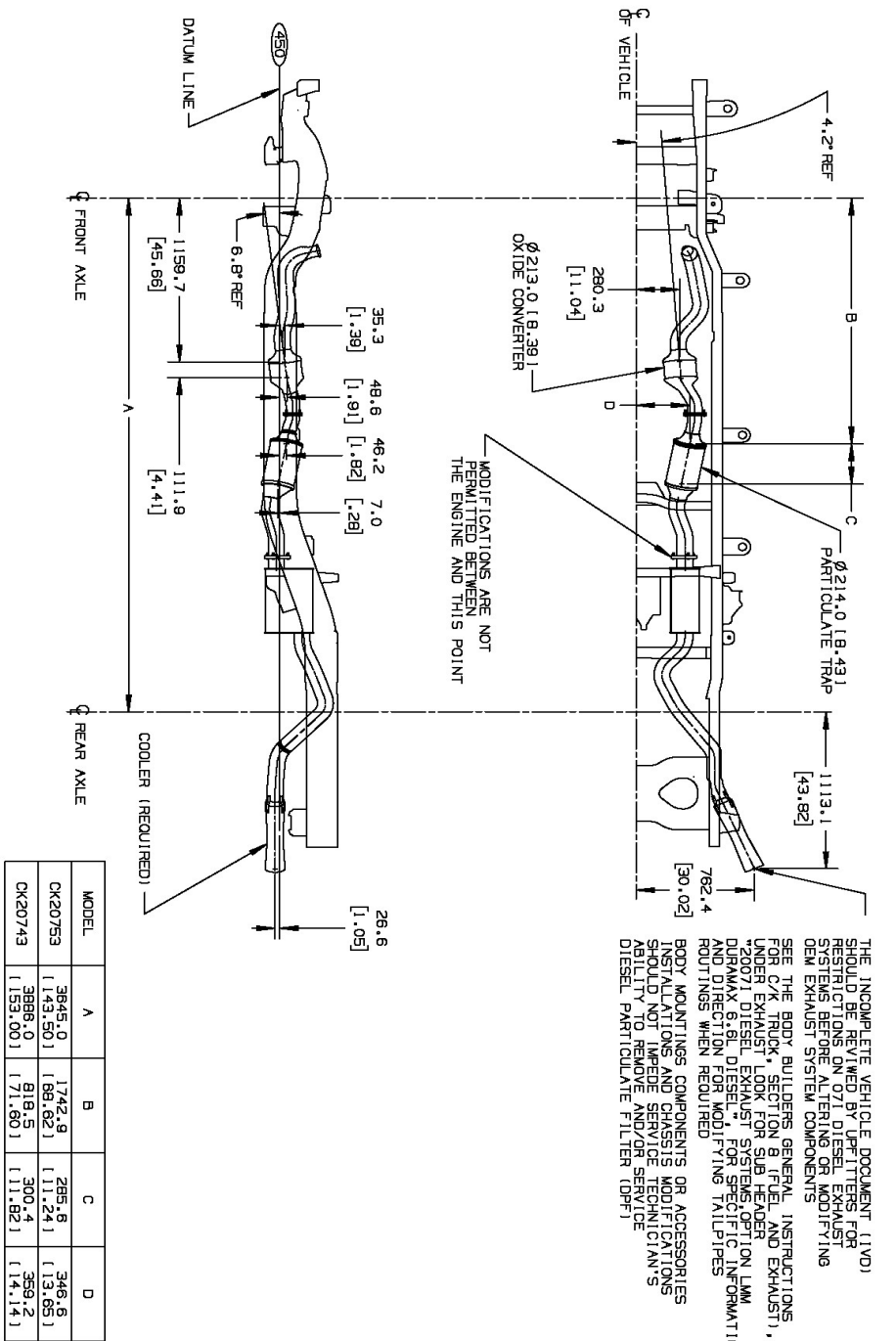
C/K 207 (43/53) w/LMM - Exhaust Systems

GMT900 EXHAUST SYSTEM CK207A3/53 LMM, 2007/2008

SHOWN CK20753

15M72007 ML

1:1 INCHES



THE INCOMPLETE VEHICLE DOCUMENT (IVD) SHOULD BE OBTAINED BY THE USER FOR REQUIRED DIESEL EXHAUST SYSTEMS BEFORE ALTERING OR MODIFYING OEM EXHAUST SYSTEM COMPONENTS.

SEE THE BODY BUILDER'S GENERAL INSTRUCTIONS UNDER "EXHAUST" FOR SLIP HEADER, "2007-1 DIESEL EXHAUST SYSTEMS" OPTION LMM, DURA-MAX 6.8L DIESEL, FOR SPECIFIC INFORMATION AND DIRECTION FOR MODIFYING TAILPIPES ROUTINGS WHEN REQUIRED.

BODY MOUNTING COMPONENTS OR ACCESSORIES INSTALLED ON THE CHASSIS MODIFICATIONS SHOULD NOT IMPROVE SERVICE TECHNICIAN'S ABILITY TO REMOVE AND/OR SERVICE DIESEL PARTICULATE FILTER (DPF).

MODEL	A	B	C	D
CK20753	3645.0 [143.50]	1742.9 [68.62]	285.6 [11.24]	346.6 [13.65]
CK20743	3886.0 [153.00]	819.5 [32.26]	300.4 [11.82]	359.2 [14.14]

ANB44495.19

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GENERAL INSTRUCTIONS – NEW FULL SIZE C/K PICKUPS & CHASSIS-CABS

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Exhaust System

Particular care should be taken to prevent the possibility of exhaust fumes and carbon monoxide exposure to vehicle occupants in units completed by body builders. Holes and openings through the floor and all other parts of the body must be permanently and adequately sealed by the body builder to avoid exhaust intrusion into any occupant area. If it is necessary to change the exhaust outlet location, the exhaust discharge must be unobstructed and directed away from occupant areas. Alteration of the exhaust outlet or its position may increase exhaust noise and render the vehicle illegal in those areas with pass-by noise regulations. All vehicles >10,000 lbs. GVWR come under Federal noise regulations, vehicles ≤10,000 lbs. GVWR are regulated by various state and local regulations of the Environmental Protection Agency; see those regulations for rules, test procedure and noise levels permitted.

Tail pipe outlet location must be tested statically and with the vehicle in motion to ensure that exhaust gases do not penetrate side or rear windows or under body seams and holes. Auxiliary power plants should also be tested under the same conditions. Tail pipe exit ahead of rear wheels is not recommended.

Check for leaks in exhaust systems and repair as required.

Exhaust temperatures can exceed 1600°F under extreme operating conditions, with pipe surface temperatures slightly less than this. Extreme care must be used when placing body components in the proximity of the exhaust system so as not to exceed the rated temperature limits of the components. Due to variants in underbody configurations of the vehicles, we are not in a position to make recommendations on how to insulate or design components in the proximity of the exhaust system.

Each manufacturer must make temperature checks of critical areas of his vehicle and adjust his design accordingly, or provide shielding to ensure safe operation of his body components.

The same can be said for the engine compartment. Obviously there will be additional heat radiated from the engine. How much is retained in the area will depend on how well this area is ventilated in your individual designs. Here again, temperature checks of interior areas surrounding the engine should be made to determine if your insulation is adequate. This is the same engineering practice we have followed on our complete vehicles incorporating these exhaust systems.

Exhaust system materials are selected and tested to withstand the operating environment of the vehicle. **Do not modify the exhaust system in any way.** The tail pipes are made of 409 stainless steel.

Heat shields are mounted to the underbody and/or exhaust system components (catalytic converter and muffler). Shields for the propshaft hanger bearings are also provided in some vehicles.

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(Section 8 – continued from previous page)

2007I Diesel Exhaust Systems, option LMM, Duramax 6.6L Diesel

With the exception of the tailpipe, do not modify the exhaust system in any way.

Exhaust system materials are selected and tested to withstand the operating environment of the vehicle. Tailpipes are made of 4 inch outer diameter 409 aluminized stainless steel w 1.8 mm wall thickness; modifications should have the same construction.

The exhaust gas temperature exiting the diesel particulate filter may be as high as 1200° F. The exhaust system is provided with a cooler on the tailpipe to reduce the exit gas temperature. If it is necessary to change the tailpipe outlet location, the exhaust cooler must be re-attached to the tailpipe after the final location is determined.

Alteration of the exhaust outlet or its position may increase exhaust noise and render the vehicle illegal in those areas with pass-by noise regulations. All vehicles >10,000 lbs GVWR come under Federal noise regulations of the Environmental Protection Agency; see those regulations for rules, test procedures, and permitted noise levels.

Care should be taken to prevent the possibility of exhaust gas / carbon monoxide exposure to vehicle occupants in 2nd units added by body builders. Holes and openings through the floor and all other parts of the body must be permanently and adequately sealed by the body builder to avoid exhaust gas intrusion into any occupant area. Exhaust discharge must be unobstructed and directed away from occupant areas. The tailpipe outlet location must be tested statically and with the vehicle in motion to ensure that exhaust gas does not penetrate side or rear windows or underbody seams and holes. Auxiliary power plants should also be tested under the same conditions. The tailpipe outlet must extend 2.0 to 2.5 in. outboard of the 2nd unit side panels. Positioning of the tailpipe exit ahead of the rear wheels is not recommended. If tailpipe modifications are necessary, check for leaks in the exhaust system and repair as required.

Exhaust temperatures can exceed 1600° F under extreme operating conditions, with pipe surface temperatures slightly less than this. Extreme care must be used when placing body components in the proximity of the exhaust system so as not to exceed the rated temperature limits of the components. Due to variants in underbody configurations of the installed 2nd units, we are not in a position to make recommendations on how to insulate or design components in the proximity of the exhaust system. Each manufacturer must make temperature checks of critical areas of his 2nd unit and adjust his design accordingly, or provide shielding to ensure safe operation of his 2nd unit components. For those portions of the vehicle provided by General Motors, heat shields are mounted to the underbody and/or exhaust system components to manage the exhaust temperatures.