BODY BUILDERS INSTRUCTIONS

The Incomplete Vehicle Document (IVD) is supplied with each incomplete vehicle, and provides information that should be used by intermediate and final stage manufacturers in determining conformity to applicable Federal Motor Vehicle Safety Standards (FMVSS). The IVD also includes information which must be followed in order to ensure that Environmental Protection Agency (EPA) and California emissions certification requirements and NHTSA Fuel Regulations are met.

This Body Builders Book contains information that may be used in addition to the IVD for any manufacturer making alterations to a complete/incomplete vehicle. No alteration should be made to the incomplete vehicle which either directly or indirectly results in any component, assembly or system being in nonconformance with any applicable Federal Motor Vehicle Safety Standard or Emission Regulation. Intermediate and final stage manufacturers should be familiar with all Federal Motor Vehicle Safety Standards and Emission Regulations and aware of their specific responsibilities as manufacturers.

For further assistance contact Upfitter Integration at: 1 (800) 875-4742

Section 0 - General Instructions

Check for proper clearance between body members and chassis components which may in any way affect the reliability and performance of the vehicle by developing abrasion and wear points from moving parts or degradation from extreme environment or thermal exposure or may increase interior noise.

Check headlamp aim and all vehicle illumination systems for proper operation when the vehicle has been completed. Re-aim headlamps when necessary. Check for proper operation of windshield washer, wipers and defroster system.

Extreme care must be taken when working on vehicles equipped with Engine Control Module (ECM), Powertrain Control Module (PCM), Transmission Control Module (TCM), Vehicle Control Module (VCM) or any electronic unit associated with an inflatable restraint system. (See Owner's Manual).

If arc-welding is employed on the chassis, precautions must be taken to protect all vehicle components, especially brake and fuel lines, fuel tank assembly, electrical wiring and ECM/PCM/TCM or VCM. To avoid electronic component damage, disconnect battery (batteries); disconnect the negative cable first, followed by the positive. To reconnect cables; connect the positive first, then the negative.

When welding components to the frame assembly, remove the wax coating in the area of the weld in order to obtain secure welds. After completion of the weld, a compatible corrosion protection should be applied to the affected weld areas.

All labels on the vehicle (any message applied to the vehicle or vehicle component that informs, instructs, or warns) must appear on the completed vehicle so the user can read them easily and without obstruction.

Those installing aftermarket systems should provide information as to where and how to obtain service and replacement parts.

When installing a Power Take-Off (PTO) with hydraulic lines, the following care should be exercised:

- Route and secure all hydraulic lines so that they are not in close proximity to any parts of the exhaust system. Keep all fittings and connections away from the exhaust system. Make sure connections and fittings cannot leak on the exhaust system.
- Exhaust system heat can damage and degrade hydraulic lines and components. Oils and hydraulic fluid coming in contact with a hot exhaust system could result in a fire.

Section 1 – Body

Accessory items such as refrigerator, hot water heater, furnace, etc., which operate on liquid propane gas should be located and protected to prevent exposure to any flame.

GM has established automotive refinishing standards for itsef as well as its aftermarket retailers. Each division require the dealer or retailer to use only materials and methods that meet GM standard GM 4901M when repairing, replacing or refinishing vehicles

Each year, all new paint systems will be tested and evaluated. New or improved products will also be tested. The paint systems that pas this annual testing process will be published in this booklet, updated annually

If GM 4901M booklets are needed, call 1-800-269-5100

Body structures, interior and accessory arrangements must be designed into the vehicle to provide for proper load distribution on both axles and not to exceed any gross axle weight ratings. Lateral load equalization must also be maintained. The resultant Center of Gravity of the unladen vehicle must be within the limits tabulated in the FMVSS 105 section of the Incomplete Vehicle Document.

Body insulation provided by General Motors should not be removed. This includes any thermal or underbody heat shields. This insulation is provided to protect the vehicle body and occupants from excessive heat and/or provide noise attenuation. Any replacement material internal to the occupant compartment must be certified for FMVSS 302 Flammability of Interior Materials. Areas of specific concern, but not limited to are:

- Underbody exhaust, muffler and tailpipe shields and insulators.
- Rear load floor interior insulation.
- Front floor interior insulation.
- Dash mat insulation.
- Engine cowl insulation interior and exterior.
- Engine cover insulation.
- Hood Insulation

Conversions

A minimum of 10° departure angle should be maintained if frame and/or body is extended.

Selected trim components above the belt line have energy absorbing foam added behind the trim (headliners, A, B & C garnish moldings). To comply with MVSS 201 any modification could affect compliance.

If body builder installs seating other than that supplied with vehicle, it is the body builder's responsibility to ensure that the seating and restraint systems comply with FMVSS requirements. The restraint systems supplied with the vehicle were designed to accommodate the seating reference points and seat travel of the original equipment seats only.

Air Conditioning

For additional information refer to Engine - Section 6.

NOTE: Air conditioning systems using R-134A refrigerant are equipped with metric fittings to prevent interchange with R-12 refrigerant components. Do not interchange R-134A components, refrigerant oil or service equipment with R-12 components, refrigerant oil or service equipment.

Rear Air Conditioning

This unit may be equipped with A/C quick-connect fittings (Option YF7) on the liquid tube (high pressure) and the suction (low pressure) return tube. These fittings are designed to accept matching Aeroquip connecting fittings attached to pre-charged

lines. This allows a one time only connection to the O.E.M. charged A/C system without having to discharge, evacuate and recharge for the connection of a rear A/C system.

A modification to the A/C system which causes the A/C plumbing lines to increase in length (such as the addition of a rear after-market evaporator and blower assembly) will necessitate the following changes:

- Lubrication PAG refrigerant oil must be added to rear system to provide lubrication for compressor. Refer to Service Manual for specifications.
- Refrigerant Add R-134A refrigerant to system based on sizing of new tubes, hoses and evaporator. Contact your A/C supplier for recommended charge. Label Revise/modify GM charge label (located on top of front evaporator or A/C bottle) from factory recommended charge for a front system only to body builder's new recommended dual system per SAE J639. This is important for servicing the A/C system so that the technician knows the correct amount to add to the modified system.

Section 2 - Frame

Hole drilling, welding, modifications, or alterations to the frame assembly are the responsibility of persons performing these operations. These same individuals assume complete responsibility for frame assembly reliability, performance after alterations and compliance to applicable FMVSS requirements.

The following procedures and specific precautionary instructions are recommended for proper installation of special bodies and/or equipment on GM frames. Failure to follow these recommendations could result in serious damage to the basic vehicle.

Flanges

Do not drill holes in frame flanges.

Holes

Holes to mount brackets, supports, and out-riggers must be drilled in the vertical side rail web with the following restrictions:

- Material between edge of hole and inside of upper or lower flange must not be less than 37 mm (1.50 in.) for HSLA (40,000 PSI yield).
- The minimum edge distance between any two (2) holes must be larger than twice the diameter of the larger hole.
- No holes should exceed 20 mm (0.75 in.) in diameter.

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 All holes should be drilled in the frame using appropriate drilling practice and safety precautions.

Welding

CAUTION: Fuel tank and fuel lines must be drained and all vapors purged to ensure non-combustible mixture before any welding, brazing or soldering.

When welding high strength low allow (HSLA 40,000 PSI yield strength) side rails or crossmembers and brackets (32,000 or 36,000 PSI yield strength), emphasis is placed upon weld application techniques to avoid stress risers that may adversely affect frame operating stresses.

When welding is performed anywhere on the vehicle, precautionary measures should be taken to prevent damage to electrical system wiring or components. Prior to any welding, parts or components which could be damaged by excessive temperatures must be removed or adequately shielded; the battery cables should be disconnected at the battery. Also prior to welding, the area to be welded and surrounding area must be cleaned of all frame protective coating. After welding, when parts are cool, carefully inspect wiring and electrical components for shorts or other damage which could draw excessive currents and possibly cause an electrical system short when the battery is reconnected. Apply protective coating to areas where coating was removed.

Alterations

If the wheelbase is modified the alterer must take responsibility for compliance with affected FMVSS and for warranty on items such as driveshafts, universal joints, center bearings and rear transmission tailshaft, transfer case and transmission case fractures, output shaft bushings, bearings, brakes, fuel systems and any other related component failures. Additionally, the customer must be alerted in the modifier's owners manual that parts for the reworked area are not available through the General Motors service parts system.

Shear Plate Attachments

Attachments of shear plates should be accomplished by using existing manufacturing holes already available in the frame side rails. Manufacturing holes, normally 25 mm in diameter, are consistently placed along the frame side member in the center of the web on each frame.

When additional holes are required for shear plate attachment, they should be no larger than 19 mm (0.75 in.) in diameter. Holes are to be drilled no closer than 63.5 mm (2.5 in.) apart. For holes drilled forward of the rear axle, centers are to be no closer than 63.5 mm (2.5 in.) from the top or bottom flanges and no closer than 89 mm (3.5 in.) from any suspension attachments. For frame holes drilled rearward of the rear axle, hole centers are to be no closer than 51 mm (2.0 in.) from the top or bottom flange and no closer than 89 mm (3.5 in.) from suspension attachments.

No additional holes or notching of either top or bottom frame flanges is allowed.

Section 3 – Front Suspension

Since there is a large variation in completed vehicle front weight due to differences in body weight and equipment, the front suspension alignment must be checked and reset if necessary after the vehicle is completed. Caster and camber should be set with reference to the "A" dimensions.

See Truck Service Manual for complete alignment procedure, specifications and measurement of the "A" dimension under "Diagnosis and Front Alignment" section.

C/K Models are designed such that camber and caster do not need adjustment unless severe road impact or accident deformation occurs. Toe should be reset after the vehicle is completed and while at normal operating load with trim height as specified (K-Model).

Section 4 – Rear Suspension

Clearance to body should be provided for the suspension, axle, driveshaft and tires under the following conditions: (1) Axle in full jounce against the metal-to-metal stop, (2) Axle at 4.5° roll with one side of axle in full jounce at the metal to metal stop and (3) Axle at design position. Allowance for the tire chain clearance shown on a maximum grown tire must allow for 42.2 mm (1.66 in.) clearance to the sides of the tire and 63.5 mm (2.5 in.) to the top of the tire. Be sure sufficient clearance is provided for suspension, axle and tire and wheel in full vertical travel (up and down).

NOTE: Notification to the consumer may be required in certain states if tire chains cannot be used.

Pipes, wiring, conduits and any other related components must not be placed where they cross the path of motion of the rear axle, driveshaft, axle brake pipes, hoses, spring or tires. Such crossing could result in rupture, wear-through, or separation due to normal axle motion.

See chassis data information for additional clearances and for assistance in calculating trim heights.

Section 5 – Brakes

See Truck Service Manual for brake specifications.

Due to the critical nature of brake systems, anyone making modifications or alterations must assume complete responsibility for system reliability, performance and certification to FMVSS 105 or FMVSS 121.

It is mandatory that no change be made to the brake main cylinder location, brake pedal push rod length or pedal position. Ensure that hydraulic brake system is free of air and hydraulic leaks. Bleed brakes if required, following procedures as outlined in truck chassis service manual. Ensure that vacuum booster system or hydroboost system is functional and free of leaks.

Check master cylinder fluid level and fill as necessary. (Refer to Owner's Manual)

Check power steering fluid level for models equipped with hydroboost brake. (Refer to Owner's Manual)

Added floor covering or carpeting must not restrict service or parking brake pedal travel el from released position to full pedal travel.

No body part or chassis-mounted component may be located within 2.0 in. of brake hose routing in all wheel and axle positions. All exhaust system components must also have a minimum of 2.0 in. clearance to brake hoses in closest positions. (Be sure to account for brake hose travel with suspension).

Body builder is to verify that the brake warning switch is operative. The brake warning switch on models equipped with vacuum-hydraulic brakes is located on the master cylinder. This includes both the brake system fluid level and parking brake actuator switch.

Section 6 – Engine

For additional information refer to Body - Section 1.

Air conditioning and auxiliary belt-driven equipment installation recommendations:

No alterations or additions to the accessory drive belt system will be warranted on serpentine belt systems.

The serpentine belt type of drive is designed as a total system, incorporating a single poly-V belt and an automatic tensioner. In this type of system, degrees of pulley wrap, belt tension, and pulley alignment are very critical factors. Modification is not recommended.

In some single belt serpentine systems, belt tension is determined by the automatic tensioner and its position relative to the belt. No adjustment required.

Due to the critical nature of the accelerator system, anyone making modifications or alterations assumes complete responsibility for system reliability, performance and compliance to FMVSS 124. Caution must be exercised so that the accelerator cable is properly routed. Specifications are as follows:

- Route cable to maximize all bend radii. In no case should bend radii be less than 3 in. (76 mm).
- Minimum distance from exhaust manifold to be 6.0 in. (150 mm), unless a heat shield is provided.
- Do not use accelerator cable or clips to route wires, harnesses or other cables.
 Cable sheath must be clipped so as not to pinch inner cable. Cable must not be loose in clip allowing sheath to move when accelerator pedal is applied and released.
- Cable must not be subjected to kinking or routing across any sharp edges.
- Cable routing must be perpendicular to the surface of the front-of-dash at the dash fitting. No objects or routings should force cable to have a bend at the dash fitting. Flexible components (hoses, wires, conduits, etc.) must not be routed within 2.0 in. (50 mm) of moving parts or accelerator linkage unless routing is positively controlled.
- Caution must be taken so that the accelerator pedal remains properly located. Guidelines for accelerator pedal locations are as follows:
 - Ensure that the accelerator can freely operate from idle to wide-open throttle position and return. Make sure that the pedal will not hang up on any nearby items such as carpets, floor, screws, wiring harnesses, etc. Engine cover should have at least one inch (25 mm) clearance to side of accelerator pedal with the carpet mat installed.
 - 2) Accelerator to brake pedal relationship has been designed to provide minimum driver movement and should not be altered in any way.

Gasoline engine induction and/or ignition system is certified in compliance with the Federal Vehicle Emission Standards. Any alterations to the systems or components could void compliance and render the vehicle illegal. System includes:

- Fuel system throttle body injector (TBI) or central port injector (CPI) and associated tubes, hoses and pipes, air cleaner outside air hose and spacer heat stove and heat stove pipe, fuel pump and inlet manifold, fuel vapor canister.
- Exhaust system.
- Ignition system distributor and initial spark timing setting, spark plugs, spark plug wires.

Crankcase ventilation system.

Diesel engine induction and injector pump system is certified to be in compliance with the Federal Vehicle Emission Standards and/or Noise Standards. Any alterations to the system or components could void compliance and render the vehicle illegal. System includes:

- Fuel system Injection pump, injector lines and injectors, fuel return hoses and pipes, air cleaner, outside air hose, fuel pump, fuel filter, fuel heater assembly and intake manifold.
- Exhaust system.
- Crankcase pressure regulation system.
- Charge air cooler system.
- External engine components such as air cleaner, crankcase pressure regulator valve, alternator, injection pipes, fuel return hoses from injectors, exhaust manifolds, oil fill pipe, etc. must be provided with sufficient clearance for engine roll and torque.
- When a vehicle is equipped with a electronic fuel injection (EFI) engine, it has an engine control module ECM/PCM/TCM or VCM. This ECM/PCM/TCM or VCM must be maintained at a temperature below 185°F at all times. This is most essential if the vehicle is put through a paint baking process. The ECM/PCM/TCM or VCM will become inoperative if its temperature exceeds 185°F. Therefore, it is recommended that temporary insulation be placed around the ECM/PCM/TCM or VCM during the time the vehicle is in a paint oven or undergoing another high temperature process.

Section 7 - Transmission

Light duty models equipped with manual transmission have a clutch-operated start safety switch. Starter should operate whenever the ignition is turned to start and the clutch is fully depressed. Readjust if necessary as outlined in the Truck Service Manual.

Models equipped with automatic transmissions have a steering column mounted neutral/park start safety mechanical lockout feature, which interfaces with the steering column ignition switch. Starter should operate only when gear shift lever is in neutral or park position. Readjust the shift linkage if necessary as outlined in the Truck Service Manual.

Power Take-Off (PTO) systems refer to *General - Section 0*.

• The NV4500 manual 5-speed heavy-duty overdrive transmission (RPO MW3) requires the use of special synthetic lubricant to reduce transmission internal

- operating temperatures. The lubricant is installed in all NV4500 transmissions at the factory.
- In instances where it is necessary to drain and refill or add fluid to the transmission, such as when installing PTO, DO NOT substitute any other lubricant. Installation of other lubricants may result in internal transmission damage.
- Castrol Syntroq GL4 is the only synthetic lubricant currently approved for use in the NV4500. This product can be secured through your local GM dealer under GM part number 12346190 per quart.
- Transmission lubricant capacity is 8.5 pints.

Models equipped with manual transmission use a hydraulic clutch actuator. Check fluid level as outlined in the vehicle owners manual.

It is mandatory that no change be made to the clutch master cylinder location, clutch master or slave cylinder push rod length, or pedal position.

Section 8 – Fuel and Exhaust

Fuel Systems

The fuel evaporative emission control equipment is certified to be in compliance with the Federal and California Vehicle Emission Standards. The fuel tank is molded from multi-layer plastic and should not be repaired or altered. Metal fuel lines have a surface coating to reduce corrosion on inside and outside surfaces to comply with useful life requirements. All fuel hoses, including plastic lines, are made of a low permeation multi-layer material to comply with enhanced evaporative emission requirements. Any alterations to systems or components including materials, hose lengths and their location, except as described in the fuel fill system modifications section, could void compliance. The system includes:

 Fuel tank, fuel level sender, fuel fill and vent hoses and pipes, emission canisters, fuel feed, fuel return and vapor lines, purge control solenoids, fuel fill cap, canister vent solenoid.

For these reasons,

NO ALTERATION OF THE FUEL SYSTEM IS RECOMMENDED

Fuel Fill

It is recommended that when mounting the fuel filler pipe assembly and vent hose that a minimum of 3.0 in. clearance be provided to any body component to prevent contact

between hoses and/or mating parts and that retention be provided to ensure routing and prevent failure due to wear and fatigue. Both the fill and vent hoses must be routed (and supported, if needed) such that there are no sags or kinks. As viewed from the filler neck, pipes and hoses must have a downward slope toward the tank. There should be a minimum of 4° of downward slope in the fill and vent pipe at any location. No fuel traps are allowed. Alterations of fuel line routings could affect the ability of the completed vehicle and are, therefore, not desirable. The complete fuel system must comply with FMVSS 301.If additional new hose is required when installing fuel tank filler neck, this hose must be suitable for use with unleaded fuels or diesel fuel respectively and must allow the vehicle to meet enhanced evaporative emissions requirements.

Fuel Lines

Fuel line routing precautions:

- 5 in. minimum clearance to exhaust system is required or a metal shield must be provided.
- Fuel lines should be clipped to chassis to prevent chafing. Metal clips must have rubber or plastic liners.
- Use corrosion resistant steel tubing with short sections of approved hose to connect components. Hose-to-tube connections should be clamped for diesel systems. Steel tube ends should be beaded for hose retention. Fuel supply is pressurized by an in-tank pump for MPFI and SCPI systems. Coupled hose or nylon quick-connects must be used. Clamped hose is not acceptable for MPFI and SCPI systems.

All engines require a fuel return system which returns excess fuel from the injection pump and injector nozzles back to fuel tanks. Care should be taken that these lines are not blocked nor their hoses pinched. The engine may run poorly or stall if these lines are restricted or blocked.

All gasoline engine vehicles are equipped with fuel evaporative emission control equipment which is certified to be in compliance with the Federal or applicable California vehicle emission standards. Alterations to fuel tank and metering unit, lines, canister or canisters, canister filters, canister purge control valves, relay switches, tank auxiliary vent valve, engine speed controller, or other devices/systems are therefore not allowable since vehicle adherence to C.A.R.B. and Federal regulations may be affected.

Diesel powered vehicles incorporate water drain provisions in the fuel system. These valves are only to be opened when siphoning water and contaminants from the fuel system.

Body attachment brackets and u-bolts must be located such that there is adequate clearance to all fuel system components, such as the fuel lines and the fuel level sending unit, under all operating conditions. Fuel Tank

Fuel Tank

For vehicles with full frames, the tank must have a minimum clearance of 2 in. top, front, rear and sides to body and other supports.

Tank may be pressurized to 1.25 PSI maximum to check for final line leakage or for forcing fuel through the system. Pressures greater than this amount may be detrimental and affect tank durability.

The use of auxiliary fuel tanks is not recommended. If an auxiliary fuel tank is added, the alterer must take responsibility for compliance with affected motor vehicle safety standards. Also, if an auxiliary fuel tank is added to a gasoline-powered vehicle, the fuel must be drawn through a pipe at the top of the tank (balance line between tanks is not permitted).

Gasoline fueled vehicles are equipped with a fuel pump return line. If an auxiliary tank is added, the tank selector valve must include a return port which returns fuel to the tank from which the fuel is being drawn.

In gasoline engines the fuel pump is located in the fuel tank. The battery must be disconnected before starting any work on the fuel system.

Gaseous Fuel Conversions

All truck gasoline engines may be converted to use liquified petroleum gas (LPG) or natural gas (NG); GM only approves the conversion of vehicles with option KL5 in combination with engine L31 (5.7L). However, some conversions may cause harmful effects to the engine. Such fuel systems may require assurances from alternate fuel system manufacturers and/or installers that the equipment will not cause damage to the engine or the exhaust system.

In the use of dual fuel systems, the vehicle operator should strictly adhere to the manufacturer's procedures for switching from gasoline to gaseous fuel operation. Improper switching procedures may result in overheating and damage to the exhaust system and the vehicle. The gaseous fuel tank should not be mounted in an enclosed area of the vehicle, such as the passenger compartment, truck, etc., and the system should be vented to the outside of the vehicle. In addition, vehicles converted to gaseous fuels should not be stored in enclosed places such as garages. Further, General Motors cautions purchasers that the design, location and installation of any type of fuel storage system involves significant technical and engineering

considerations and that these statements on gaseous fuel conversions should not be interpreted to be an approval by General Motors of any modification to the original equipment fuel system. Conversions to gaseous fuel should be made in conformance with applicable Federal and State regulations. Removal of emission-control components, or the addition of gaseous fuel systems which could damage or reduce the longevity of those components and could also cause the mechanical and emission performance warranty to be voided.

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.

Section 9 - Steering

Check power steering fluid level and system operations. (Refer to Owner's Manual)

Steering wheel and horn pad must not be altered or replaced.

The steering column mast jacket not to be altered.

Section 10 - Tires

Check wheel lug nuts for proper torque; specifications are provided in the Owner's Manual.

Substitution of tires of greater capacity than those offered as original equipment by vehicle manufacturer is not approved for use on original equipment wheels. Any usage of higher capacity tires must be accompanied by higher capacity wheels. However, the wheel offset (the distance from centerline of rim to wheel mounting face) must be the same as the replaced original equipment wheel to ensure proper wheel bearing loading and clearance of tires to body and chassis components. Increasing tire and wheel capacity does not necessarily increase vehicle GVW ratings.

Any substitution of tires may affect Speedometer/Odometer accuracy.

It is recommended that tire chain clearance guideline, J683 from the Society of Automotive Engineers be adhered to in designing rear wheelhouse clearance.

Check tires and inflate to recommended tire pressure according to the tire pressure information provided in Owner's Manual and tire inflation label provided with vehicle.

Section 12 – Electrical Battery and Battery Cables

The vehicle battery should be located and positioned to make use of the existing battery cables. If the battery requires relocation and longer cables are required, a proportionately larger gauge wire must be used. If in relocating the battery the negative ground cable is attached to frame rail, a cable of similar gauge be provided between the frame rail and the engine. This is required due to the heavy electrical loads imposed by the starting circuit. To ensure proper operation of the battery cables the following chart on length, gauge and materials must be strictly adhered to:

Combined length of p	Combined length of positive and negative								
Cable Gauge Cable in Inches (Copper)									
4	66								
2	107								
0	170								

The All New C/K is equipped with a Remote Positive (+) Jump Starting terminal which is located behind a red plastic cover near the engine accessory drive bracket. This terminal is intended for jump starting only and should NOT be used by upfitters to obtain battery power. Three fused studs, howerver, are available on the Underhood Electrical Center and, if available, may be used by upfitters to obtain battery power. If the battery is remotely mounted (other than in the engine compartment) the 'sense' circuit in the generator regulator shall be used. The sense circuit consists of a 7.76 OHM 1/4 watt resistor connected in series between the 'S' terminal of the generator and the B+ terminal of the battery.

Auxiliary Battery (Gasoline Engines Only)

If an auxiliary battery is to be retro-fitted, the electrical schematic for option TP2 is recommended as a guide. This will result in the auxiliary battery being connected to the vehicle load and charging circuit when the ignition switch is 'on' (fuse block terminal "Acc.Ign.Fused"). When the ignition switch is turned off, the interlocking relay is disengaged and the auxiliary battery is disconnected from the vehicle circuit.

Modifications/add-on wiring must be carefully reviewed to ensure compatibility with the base vehicle wiring by reviewing system schematics, wire routing paths, harness connections, etc. Due to the wide range of modifications that may be required for vocational needs, it is not feasible for the O.E.M. to take into account all potential revisions. For this reason, any person modifying existing vehicle wiring must assume responsibility that the revisions have not degraded the electrical system performance. Any add-on wiring must be properly fused and routed to prevent cut, pinch, and chafe problems, as well as avoid exposure to excessive heat. Care must be exercised that existing vehicle interfaces do not have their current load capabilities

exceeded, and that the respective control devices are not overloaded. Added wire size should be at least as large as the the wire to which it is attaching in order for fuse protection to be maintained.

A Packard electric wiring repair kit is available through Kent–Moore (GM P/N 12085264, Kent–Moore P/N J38125-4). This kit contains instructions, tools and components for making repairs to wiring harness components. This kit would also greatly assist in accomplishing necessary add-on wiring such as body marker lamps, so that system reliability/durability is maintained.

Electrical wiring components can be obtained through your authorized GM dealer. Many Packard Electric components are also available through Pioneer Standard Company (1-800-PACKARD). Pioneer may also be able to assist in making necessary wiring additions by providing custom wiring stubs or jumpers to your specifications.

Section 13 - Cooling

To provide satisfactory engine cooling, the following conditions must be met:

- Do not locate any large objects in front of the radiator core or grille such as batteries, spare tires, lights/sirens, etc. They restrict air flow into the radiator core and influence fan blade stress.
- 2. Grille opening, size configuration and the external baffles provided should not be altered in any manner. Any reduction in cooling ability may adversely affect engine/transmission performance.
- 3. Fan clutches not conforming to the original equipment specifications may not operate correctly and may stay "on" continuously, never come on, or cycle on and off excessively. This will result in a reduction of fuel economy, engine overheat at times, and annoying cycling respectively.
- 4. Heavy duty cooling equipment is required when snow plows, winches, etc. are installed.
- 5. If a heater unit is not installed in the vehicle or a heater shut-off valve is required, a line connecting the heater connection on the engine to the heater connection on the engine must be installed. When a shut-off valve is required in heating system, it must be teed into the system in such a manner as to maintain continuous flow between engine heater connection radiator heater connection at all times.

Do not install any internal flow restrictors.

Heater hose:

3-way or 4-way valves must be used to provide constant water flow through the intake manifold pad area used to mount the TBI unit (L35 only).

NOTE: TBI unit does not have internal coolant passages.

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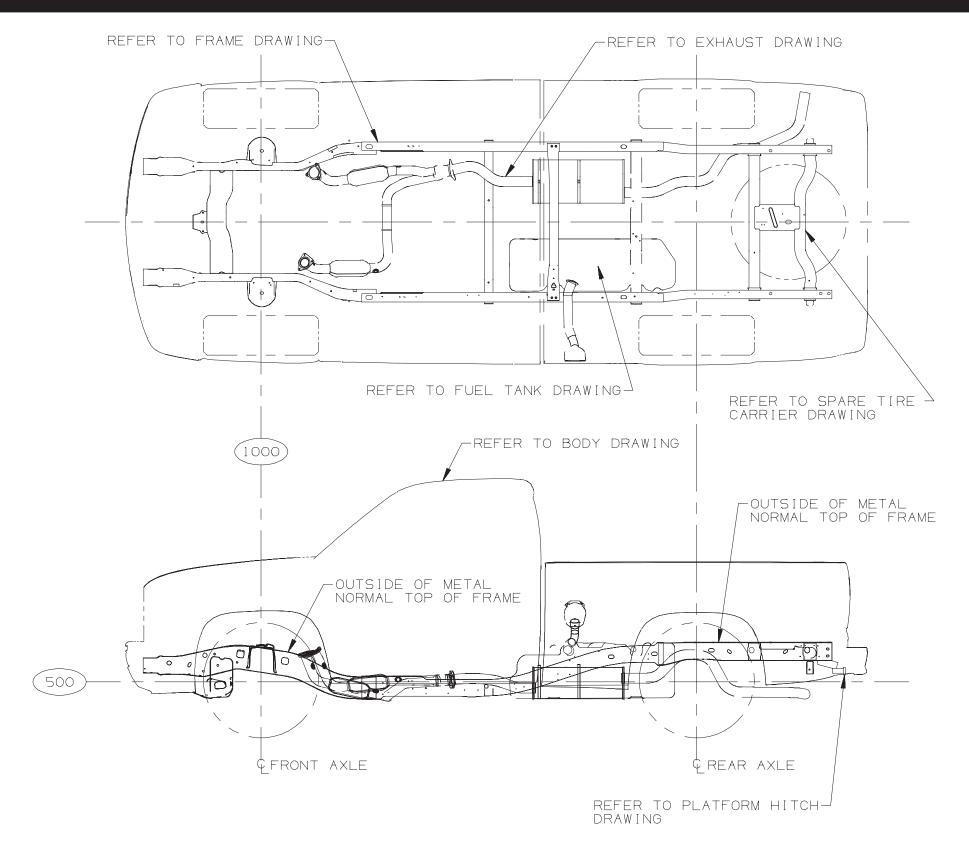
Model Symbol Chart

Series	2 Door Pickup Fleetside/ Wideside	2 Door Pickup Fleetside/ Wideside 2 Door Pickup Sportside 2 Door Pickup Sportside 3 Cab Rear Seat Acces Panel Fleetside/ Wideside 4 Sports		3 Door Extended Cab Rear Seat Access Panel Sportside	GVW (lbs.)	Nominal Ton Rating	Wheelbase (in.)	Cab to Axle (in.)
0/// 457	03 + E63 (6.5' Box)	03 + E62 (6.5' Box)			C/K 6100	1/2	119.0	42
C/K 157			53 + E63 (6.5' Box)	53 + E62 (6.5' Box)	C 6200 K 6400	1/2	143.5	42
C/V 450	03 + E63 (8.0' Box)				C/K 6400	1/2	133.0	56
C/K 159			53 + E63 (8.0' Box)		C 6200 K 6400	1/2	157.5	56
C/K 257			53 + E63 (6.5' Box)		C/K 7200 K 8600	3/4	143.5	42
C/V 250	03 + E63 (8.0' Box)				C 7200 C/K 8600	3/4	133.0	56
C/K 259			53 + E63 (8.0' Box)		C 7200 & L56 C/K 8600	3/4	157.5	56

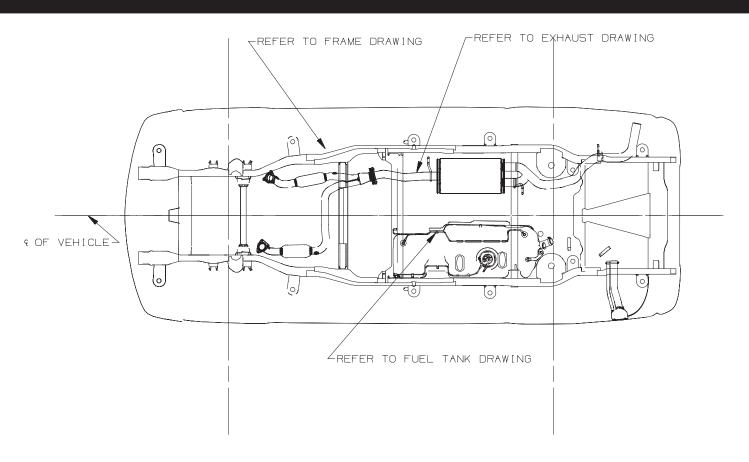
Series	4 Door Utility	Suburban	GVW (lbs.)	Nominal Ton Rating	Wheelbase (in.)
C/K 157	06		C 6500/6800 K 6800/6900	1/2	116.0
C/K 159		06	C 6800 K 7200	1/2	130.0
C/K 259		06	C/K 8600	3/4	130.0

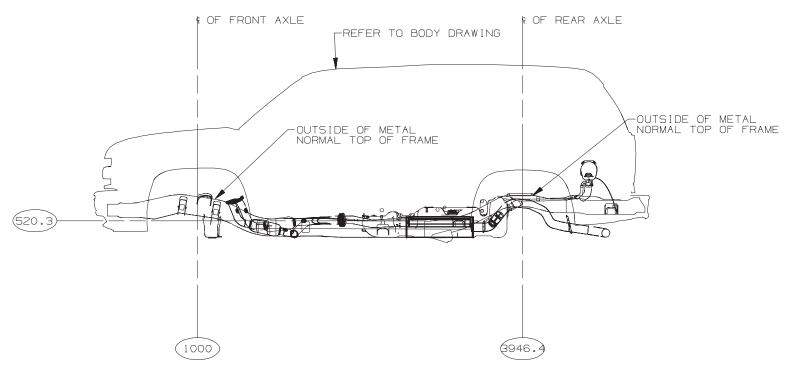
CK New Rev. 12/98 Rev. 11/99

C/K (15/25)703 General Arrangement

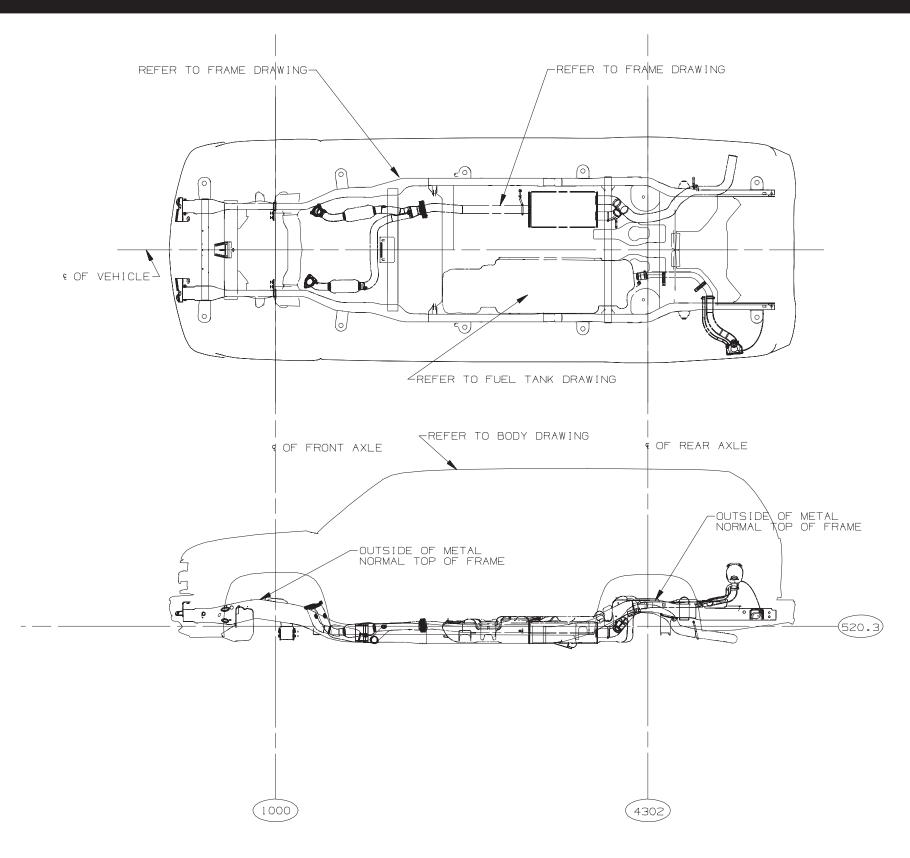


C/K 15706 General Arrangement





C/K (15/25) 906 General Arrangement



SNOW PLOW INSTALLATION

The chart on the following page shows GMTG approved models available with snow plow prep package—option VYU.

General Motors recommends that when a snowplow is mounted on a vehicle, only one passenger should accompany the driver. More than one passenger may exceed Front Gross Axle Weight Ratings.

Prior to installing a front mounted snowplow, the following process should be followed and necessary information obtained.

- Establish vehicle curb weight
- Establish chassis manufacturers front and rear axle weight ratings
- Chevrolet and GMC truck dealers can provide availability, specifications weights Gross Vehicle Weight Ratings (GVWR) and Front and Rear Gross Axle Ratings (GAWRF/GAWRR). For vehicles already built, this information can be found on the certification label installed on drivers door/door frame or provided on cover of incomplete vehicle document.

The following information should be obtained and provided by the manufacturers of snowplows and salt spreaders:

- Specifications, Weights and center of gravity data
- Vehicle installation guidelines and instructions
- Calculation of weight distribution for the front and rear axles

The loaded vehicle with driver, passengers, aftermarket accessories, snowplows, spreader, and cargo must not exceed Gross Vehicle Weight Ratings (GVWR), Front and Rear Gross Axle Weight Ratings.

Ballast Compensating Weight

The use of ballast weight may be required to prevent exceeding the Gross Axle Weight Rating of the front axle. Ballast should be securely attached in the pickup box or behind the rear axle of vehicle.

Electrical Provisions

Emergency Roof Mounted Lamp. This provision includes a dash mounted switch a relay and wiring which is routed up along the Left Hand B pillar and terminates at the roof as coiled blunt cut wires (see Figure 1). There are two blunt cut wires, 12 gauge (3.0mm²) wires, one is Brown (roof mounted lamp power), it is controlled by the dash mounted switch through the relay, the other is Black (ground). The Brown power wire is protected by the 30 Amp SEO 2 fuse which is located in the Underhood Electrical Center.

130 Amp Generator. The AD244 130 Amp generator will be equipped on all VYU pickup trucks except those having the Vortec 4300 V6 (L35) engine. The AD244 generator is an up grade from the AD230 105 generator which comes as standard equipment

Accessory Harness Grommet. Trucks will come equipped with a predrilled 42mm pass through hole located on the dash panel on the left hand side of the vehicle. The hole will be sealed with a grommet (see Figure 2) which can be used by the upfitter for pass—through wiring. To use the grommet (part# 15336702), the upfitter slices off the tape tab end (in engine compartment) of the grommet and then spreads it open to pass wiring through.

Forward Lamp Harness In Line Connector. The forward lamp wiring harness will have a set of mating eight cavity connectors on both the left and right hand side of the vehicle (see figures 3 & 4). The upfitter will be able to disconnect the in line connectors which will allow interfacing with the forward lamp circuits (Front Parklamp, Turn Signal and DRL). The headlamp circuits must be accessed from the headlamp connectors. Circuit function charts of these connectors are on page 17. Connrctor A parts list of these connectors is provided on page 18.

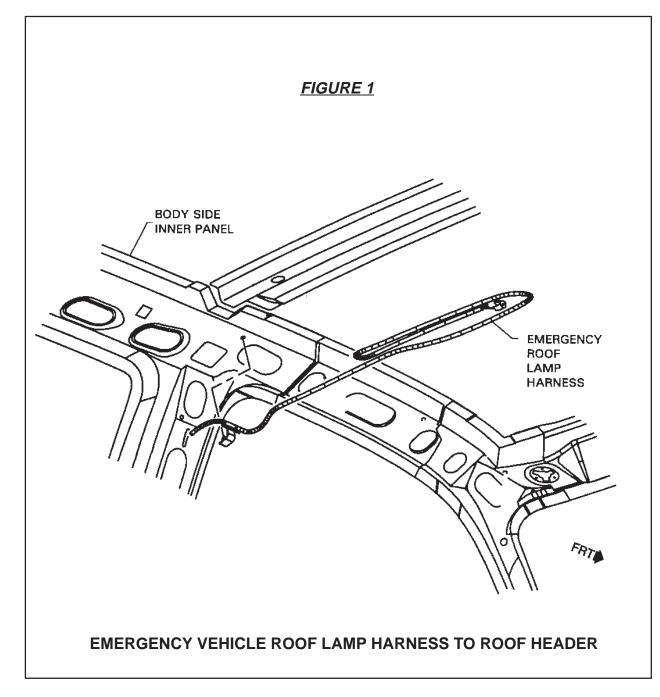
Back-up Lamp Power Feed. Although this feature is standard on the All New C/K pickup trucks, it should be pointed out that a backup lamp power feed is provided at the rear of the vehicle through the trailer wiring harness. This circuit is protected by the 10 Amp TRLR B/U fuse which is located in the Underhood Electrical Center. On vehicles with Light Duty Trailer Wiring which comes standard, this circuit can be accessed through the Light Green trailer wire. This wire is blunt cut and located at the rear of the vehicle along with other trailer tow circuits. On vehicles with Heavy Duty Trailer Wiring option, this circuit is located in pin A of the trailer in line connector at the rear of the vehicle.

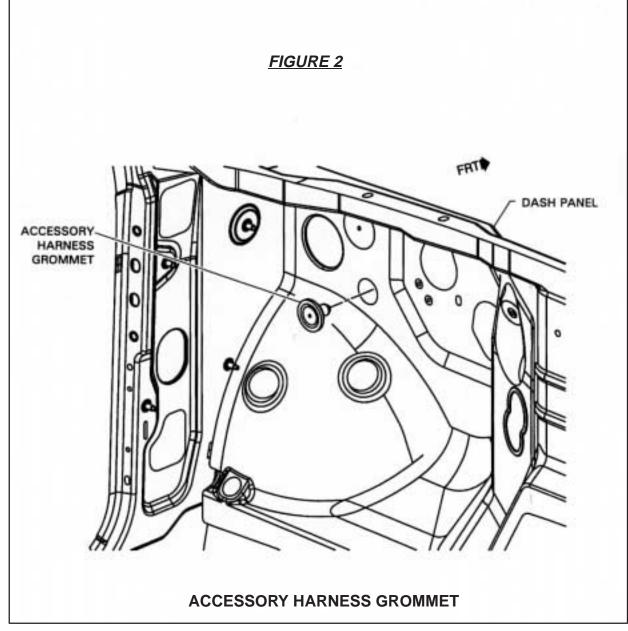
Snowplow Prep Package-Option VYU

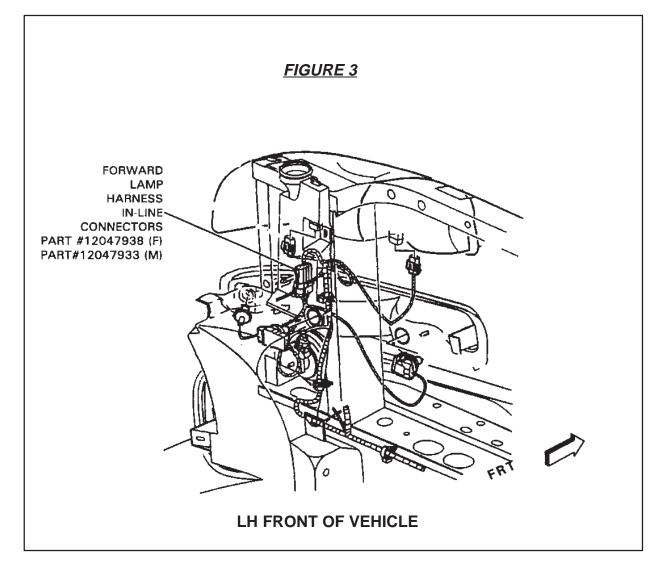
Snowplow Prep Package – Option VYU

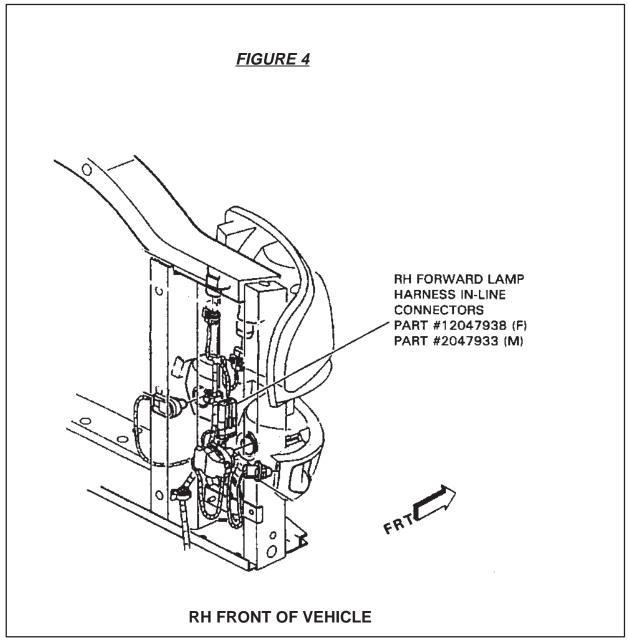
	ı		PICK UP								CHASSIS CAB	
Model		K15703	C25903	C25903	C25753	C25953	K25903	K25753	K25953	C25903	K25903	
Cab		Regular	Regular	Regular	Extended	Extended	Regular	Extended	Extended	Regular	Regular	
Wheelbase inches		119	133	133	143.5	157.5	133	143.5	157.5	133	133	
P.U. Box Length feet		6.5	8	8	6.5	В	8	6.5	8			
GVWR lb. (option code)		6100(C5M)	7200(C5Z)	8600(C8P)	7200(C5Z)	8600(C6P)	8600(C6P)	8600(C6P)	8600(C6P)	8600(C6P)	6600(C6P)	
GAWR lbFrt.		3925	4100	4100	4100	4100	4500	4500	4500	4100	4500	
Engine Availability with VYU:	opt, code			- 14			-					
Vortec 4300 V5 Gasoline	L35	В	N/A	N/A								
Vortec 4800 V8 Gasoline	LR4	Ā	N/A	N/A								
Vortec 5300 V8 Gasoline	LM7	Ä	8	N/A	8	N/A	N/A	N/A	N/A	N/A	N/A	
Vortec 6000 V8 Gasoline	LO4	N/A	Ā	В	Ā	В	8	В	В	В	8	
Base (B) Equipment Includes:		ادو تاء		*,049	44 7 75			أو ريد دي	Land Land	الم المراجعين		
Integral Engine Oil Cooler (water to air)		8	8	В	В	В	6	В	8	В	В	
Battery 600 CCA		8	В	B	В	В	В	8	8	В	В	
Provisions for Rear Back-Up Lighting		8	В	B	В	8	В	В	B	В	В	
Alternator 105 Arnos		В	В	В	В	В	В	В	В	В	В	
Best in Class Heater/Cooling System		В	В	В	В	В	В	В	В	В	B	
Snow Plow Prep Pkg. Includes:	VYU			. 946	1 :	7.88	. 4(1)	· 1 -	f)r	. a .,	1000	
Increased Front Spring Rate 2WD	FRL	N/A	Х	Х	Х	Х	N/A	N/A	N/A	Х	N/A	
Increased Front Spring rate 4WD	F60	Х	N/A	N/A	N/A	N/A	Х	Х	Х	N/A	X	
External Eng. Oil Cooler LQ4 only	KC4	N/A	Х	Х	Х	Х	ж ,	Х	X	Х	X	
Alternator 130 Amon	KG8	Х	Х	Х	Х	Х	Х	Х	X	Х	X	
Provision for Roof Mntd. Emergency Light	TRW	x	Х	Х	X	X	X	X	X	Х	X	
Transmission Cooler (air to oil) Auto only	KNP	X	В	9	В	8	В	В	В	8	8	
42mm Hole FOD with Rubber Grommet		Х	Х	Х	Х	Х	X	X	X	X	X	
Fwd Lamp Harness with In-Line Connector		X	X	Х	Х	Х	Х	Х	X	Х	X	
Mntg. Location for Snow Plow Controls		_ χ	Х	Х	Х	X	X	Х	X	X	X	
High Air Flow Frt. Bumper Impact Strip	VG3	Х	X	X	Х	Х	Х	X	X	X	X	
HD Power Steering Cooling		Х	X	Х	X	X	В	В	В	X	8	
Front Axle Loading Information		Х	Х	Х	Х	Х	X	Х	Х	X	Х	
Suggested Optional Equipment :				10						4		
Battery 770 CCA	7Y9	A	A	Ά	A	A	À	Α	Α.	A	A	
Back-up Alarm	853	A		Α	A	A	Α	Α	Ä	A	A	
3.73 Rear Axle Ratio	GT4	A	В	В	A	В	В	В	В	В	В	
4.10 Rear Axle Ratio not avail with L35	GT5	A	A	A	A	Α	A	Α	A	Α	٨	
Engine Block Heater	K05_	A	٨	A	Α	A	A	Α	A	A	٨	
Replacement Floor Covering HD Rubber	BG9	A T	À	A	A	A	A	Α.	A	Α	A	
Locking Differential needs GT4 or GT5	G80	Ä	A	A	A	A	٨	A	A	A	Α	
Tow Hooks	V76	В	Α	A	A	Α	В	B	6	A	В	
Rear Window Defogger	C49	Α	A	Α	_ A	A	A	A	Α	Α	Α	
Sliding Rear Window not avail, with C49	A28	A	Ä	Α	Α.	A	Α	Α	Α	*	A	
Skid Plate, "Off Road"	NZZ	Α	N/A	N/A	N/A	N/A	Α.	A	Α	N/A	Α	

B-base vehicle/A-available/X-included in package/N/A-not available on this model









FRONT EXTERIOR LAMP CONNECTOR CIRCUIT FUNCTION CHARTS

LH FOWARD LAMP HARNESS IN-LINE CONNECTORS

Cavity	Circuit	Wire Color	Function	Fuse
Α	2309	BRN	Front Parklamp	10 Amp FR PARK
В	2309	BRN	Front Parklamp	10 Amp FR PARK
С	2114	LT BLU	Turn Signal - Left	In line w/LF Side Marker
D		_		
E	2114	LT BLU	Turn Signal - Left	10 Amp LT TURN
F	150	BLK	Pk/Turn to Gnd	-
G	545	DK BLU	DRL	10 Amp DRL
н	150	BLK	DRL to Gnd	-

RH FOWARD LAMP HARNESS IN-LINE CONNECTORS

Cavity	Circuit	Wire Color	Function	Fuse
Α	2309	BRN	Front Parklamp	10 Amp FR PARK
В	2309	BRN	Front Parklamp	10 Amp FR PARK
С	2115	DK BLU	Turn Signal - Right	In Line w/RT Side Marker
D	. –	_		
E	2115	DK BLU	Turn Signal - Right	10 Amp RT TURN
F	150	₿LK	Pk/Turn to Gnd	w= •
G	545	DK BLU	DRL	10 Amp DRL
H	150	BLK	DRL to Gnd	***

LH LOW BEAM CONNECTOR

Cavity	Circuit	Wire Color	<u>Function</u>	<u>Fuse</u>
Α	1340	ORN	Left Headlamps	15 Amp LT HDLP
В	525	YEL	Low Beam Switch	Switched to Ground

RH LOW BEAM CONNECTOR

1	Cavity	Circuit	Wire Color	Function	<u>Fuse</u>
	Α	1240	ORN	Right Headlamps	15 Amp RT HDLP
1	В	525	YEL	Low Beam Switch	Switched to Ground

LH HIGH BEAM CONNECTOR

Cavity	Circuit	Wire Color	Function	Fuse
Α	1340	ORN	Left Headlamps	15 Amp LT HDLP
В	524	PPL	High Beam Switch	Switched to Ground

RH HIGH BEAM CONNECTOR

Cavity	Circuit	Wire Color	Function	<u>Fuse</u>
Α	1240	ORN	Right Headlamps	15 Amp RT HDLP
В	524	PPL	High Beam Switch	Switched to Ground

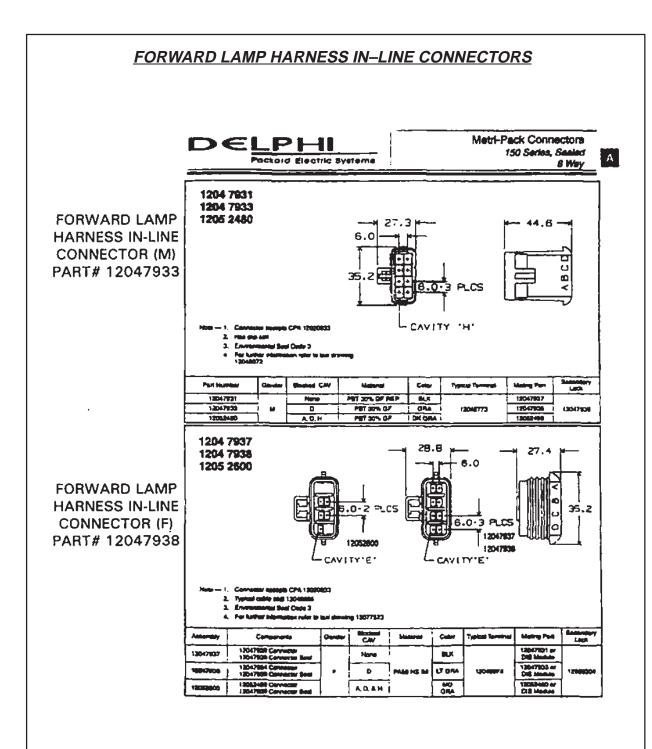
Note: All fuses referenced above are located in the underhood Electrical Center

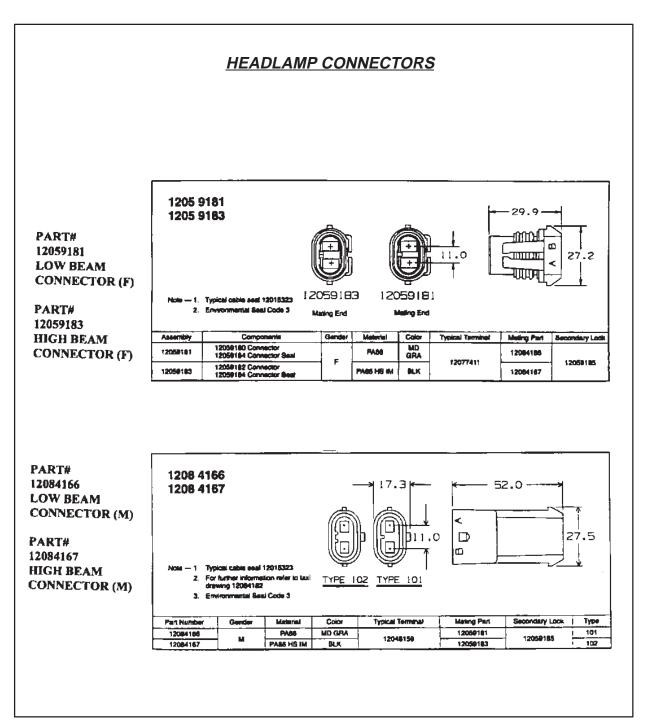
FRONT EXTERIOR LAMP ELECTRICAL CONNECTOR PART NUMBERS

PART#	CONNECTOR
12047938	FORWARD LAMP IN-LINE HARNESS CONNECTOR (F)
12047933	FORWARD LAMP IN-LINE HARNESS CONNECTOR (M)
12059181	LOW BEAM CONNECTOR (F) (ON VEHICLE)
12084166	LOW BEAM CONNECTOR (M)
12059183	HIGH BEAM CONNECTOR (F) (ON VEHICLE)
12084167	HIGH BEAM CONNECTOR (M)

Note:

Terminals and secondary locks may have to be ordered separately. Further details regarding the connectors can be obtained from the Delphi Products Handbook or by calling 1–800–PACKARD (1–800–722–5273)





PICKUP BOX REMOVAL PROGRAM

The following information is for vehicle alterers who intend to remove Pickup boxes from C/K Trucks and install second unit bodies on these vehicle. This information applies only to those vehicles which have a Gross Vehicle Weight Rating (GVWR) Of 6100 lbs. up to and including 10,000 lbs. (Vehicles listed in Table A).

Alterations to Complete Vehicles

Persons who alter complete (certified) Pickup Trucks by removal of the Pickup box should be aware that this type of activity would impose upon them the corresponding responsibility for ensuring that the units as sold are in compliance with all applicable safety and/or emissions (including noise and RFI) requirements. Specific questions concerning compliance or certification to these requirements should be directed to the vehicle alterer's legal counsel or the National Highway Traffic Safety Administration, The Environmental Protection Agency, The California Air Resources Board, or in Canada, The Ministry of Transport or The Canadian Department of Commerce.

The Environment Protection Agency has provided an explanation of the policy they will follow regarding the modification by the secondary manufacturers of complete Light Duty Trucks prior to sale and delivery to the ultimate purchaser. This explanation is constrained in a letter from C.N. Freed of the EPA to M.M. McBride of the Recreation Vehicle Industry Association, dated July 13, 1979. A portion of this letter states:

- "...Secondary manufactures are not manufacturers under the act when the following conditions are met:
- 1. The vehicle produced by a secondary manufacturer conform in all material respects to the design specification in the original manufacturer's application for certification (hereafter' application'); and
- 2. The weight of the vehicle produced by a secondary manufacturer, including the weight of fuel at nominal tank capacity, is no more than 500 lbs. above the maximum vehicle weight."

No frontal area restrictions will apply to secondary manufacturers who comply with the conditions above. However, every vehicle sold to an ultimate purchaser must be covered by emission warranty mandated by section 270(a) of the Act. Secondary manufacturers who do not meet the above conditions will be considered manufacturers under the Act and will be required to ensured that the vehicle they produce are covered by a certificate of conformity.

The Maximum vehicle weight for a given vehicle is determined by:

- A) Subtracting 300 lbs. from the highest loaded vehicle weight (see 40 CFR 86.079–2 for loaded vehicle weight definition and the table at 40 CFR 86.129–80) associated with the test weight listed in the application for the vehicle, and
- B) Adding the weight of all options that are offered by the original manufacturer for the applicable truck line that were not included in the curb weight reported in the application.

In the case of mutually exclusive options, only the weight of the heavier option is to be used when computing the maximum vehicle weight.

Some original manufacturers provide their sales organizations with a "Data Book" that lists the curb weights of complete Light Duty Trucks equipped with standard equipment (not including their weight) the original manufacturer offers. A secondary manufacturer may use the "Data Book" Curb weight and option weight to determine the maximum vehicle weight for a given vehicle by adding the weight of every option offered by the original manufacturer for the vehicle to the curb weight in the "Data Book" curb weight only when the vehicle in question actually contains these options.

Those who wish to remove the Pickup Box from a Pickup Truck for the purpose of installing special equipment or another type of body should be further advise that a Pickup may require modification in one of the following areas. Before a decision is made to alter a C/K Pickup Model, please be advised of the following considerations:

Vehicle:

Analyze the vehicle specifications for product content. the option content of a particular vehicle will determine which if any of the four area of modification might not be applicable to the vehicle alterations contemplated.

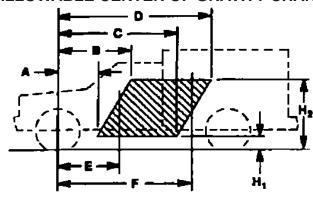
Service Parts:

The service parts and related service part number as outlined in the four areas of modification my be ordered throughout your local Chevrolet/GMC Dealer. Contact your Dealer's Service Parts Representative for availability and price.

Areas of Modification

- 1. Fuel filler neck assembly and housing
- 2. Tail lamp, tail lamp wiring harness and license plate bracket assembly
- 3. Fuel tank filler pipe ground strap.
- 4. Spare tire mounting.

ALLOWABLE CENTER OF GRAVITY CHARTS



C.G. of vehicle in the FMVSS unladen condition (Curb Wt. + 400 LB.) must be inside the shaded area. In other words, it must be within the trapezoid formed by the coordinates A, B, C, D, H1, H2.

Also, it must be to the rear of verticle line E and forward of vertical line F.

	ĺ			1 7	· .		PICKU	P BOX F	tEMOV/	L VEHI	CLES						
MODEL.	GVWR WHEELBAS	WHEELBASE	WHEELBASE	WHEELBASE	WHEELBASE	WHEELBASE	WHEELBASE	DRIVE	BRAKE	COORDINATES OF ALLOWABLE C.G. VARIATION AT FMVSS UNLADEN						C.G. LIMIT	
				SYSTEM		(C	URB W	.+ 400 L	B.)		FORWARD	REARWARD					
					H1	H2	A	В	Ç	0	E	F					
CC15903	6,400 LB.	133.0"	5W	JC5	12"	45"	34"	60"	71*	95"	41"	95					
CK15903	6,400 LB.	133.0"	5W	JCS	12"	48"	34"	60 T	71"	95*	41"	95"					
CC25903	7,200 LB.	133.0"	SW	JH5	12"	48"	36~	59"	70"	92"	40"	92"					
CC25903*	8,600 LB.	133.0*	SW	JH6	12"	48"	36-	5 9 °	70⁻	92"	40"	92"					
CK25903"	8,600 LB.	133.0"	SW	JH8	127	48"	36-	59"	70⁻	92"	40"	92					
CC25953	8,600 LB.	157.5"	SW	JH6	12"	46"	43"	70"	83-	110	48"	110*					
CK25953	8,600 LB.	157.5"	SW	JH6	12"	46"	43"	70"	83"	110"	48"	110"					

SW = SINGLE WHEEL DRIVE

DW = DUAL WHEEL DRIVE

C.G. = CENTER OF GRAVITY

BRAKE SYSTEMS

JC5 = BRAKE VACUUM POWER, 4 WHEEL DISC: 6,400 LB.
JH6 = BRAKE HYDRAULIC POWER, 4 WHEEL DISC: 9,900 LB.

* - AVAILABLE WITH ZW9: PICKUP BOX DELETE (INCOMPLETE VEHICLE DOCUMENT INCLUDED)

TABLE 'A'

Model	General Body Type	Maximum Body Center of Gravity Height	Maximum Body Height	Minimum Cab to Body Clearance	Maximum Unloaded Vehicle Weight with Service Body	Maximum Body Welght
CC15903 6,400 LB. GVWR 133.0" WB 55.9" CA Regular Cab	Low Service	14.0*	Under 62.0"	3.0"	5,034 LB.	1,100 LB.
CK15903 6,400 LB, GVWR 133.0" WB 55.9" CA Regular Cab	Low Service	14.0"	Under 62.0**	3.0*	5,246 LB.	1,100 LB,
CC25903 7,200 LB. GVWR 133.0" WB 55.9" CA Regular Cab	Low Service	14.0"	Under 62.0"	3.0"	6,000 LB.	1,400 LB.
CC25903 8,600 LB. GVWR 133.0" WB 55.9" CA Regular Cab	Low Service High Service	14.0" 20.3"	Under 62.0° 82.0° and over	3.0"	7,272 LB.	1,700 LB. 2,600 LB.
CK25903 8,600 LB. GVWR 133.0" WB 55.9" CA Regular Cab	Low Service	14.0"	Under 62.0"	3.0"	6,689 LB.	1,700 LB.
CC25953 8,600 LB, GVWR 157.5" WB 55.9" CA Extended Cab	Low Service High Service	14.0" 20.3"	Under 62.0" 62.0" and over	3.0*	7,272 LB.	1,700 LB. 2,600 LB.
CK25953 8,600 LB. GVWR 157.5" WB 55.9" CA Extended Cab	Low Service	14.0"	Under 62.0"	3.0*	6,689 LB.	1,700 LB.

Max. Body C.G. Height dimensions are measured from top of frame directly behind the cab.

Weight of pickup box: 360 LB./Weight of rear bumper: 53 LB.

Max Body Weight = Max. Unloaded Vehicle Weight - Curb Weight without PU Box & Bumper Body Weight + Vehicle Curb Weight must not exceed "Max. Unloaded Vehicle Weight" Curb Wt. can be established by Dealer using Sales Data Book or by having vehicle weighed. Certification label is located inside driver's door frame area (GVWRs and Payload).

Fuel Fill System Modifications For Gasoline Vehicles

Parts are provided through your Chevrolet/GMC Dealer to convert the fuel fill and vent system to meet the packaging requirements of the particular bodies that are installed on the chassis. See page 8 for part numbers.

Certain guidelines must be adhered to in modifying the fuel fill and vent system to ensure that the completed product meets the manufacturer's requirements.

- 1. The fill and vent system must be installed such that there is adequate clearance between the fuel fill vent system and the tires under all operating conditions. Body attachment brackets and must also be located such that there is adequate clearance to all fuel system components, such as the fuel lines and the fuel level sending unit, under all operating conditions.
- 2. the fuel fill/vent pipe system available from the dealer includes a number of additions hose retaining beads. The pipe can be trimmed at the hose retaining beads to adjust for the various chassis lengths and body widths. The pipes must be trimmed only at locations where a hose retaining bead is present. A hose retaining bead must be present at each pipe to hose interface in a modified fuel fill and vent system. Pipe ends must be free of burrs which may be detrimental to satisfactory assembly and, or function.
- 3. A minimum of 8.0 inches of fill hose must be maintained between the filler neck and the fuel tank as measured in an outboard direction from the tank surface (at the fill hose nipple) to the outlet end of the filler neck.
- 4. Both the fill and the vent hoses must be routed (and supported, if needed) such that there are no sags or kinks. Excess hose length may be removed as required provided hose does not kink. As viewed from the filler neck, pipes and hoses must have a downward slope toward the tank. There should be a minimum of 4° of downward slope in the fill and vent pipes at any location.
- 5. The fuel fill and vent system should be restrained in the upfit vehicle. This is necessary to avoid chaffing, fretting, rubbing, etc. which may cause wear to the pipes or hoses.
- 6. Fuel fill hose clamps are to be tightened to 22lb–in torque.
- 7. Fuel vent hose clamps are to be tightened to 16lb–in torque.
- 8. Route the rear axle vent hose using the clips on the frame and the bracket on the fuel filler neck assembly.

The FMVSS Regulations and the U.S. EPA and California Exhaust and Evaporative Emission Requirements found in the 1999 Body Builder Manual (Current C/K Pickup Box Removal Program Section) are valid for the 1999 All New Silverado/Sierra Pickup Box Removal Program. Please refer to the Current C/K Pickup Box Removal Program Section of the 1999 Body Builder Manual to assure compliance.

The Parts required to replace the existing fuel fill system (ZW9) are:

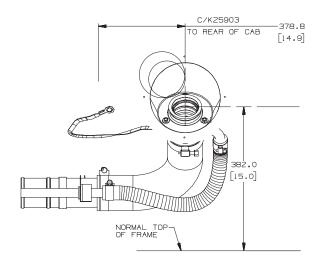
Pipe Assembly–Fuel Tank Filler
 Part Number: 15008136

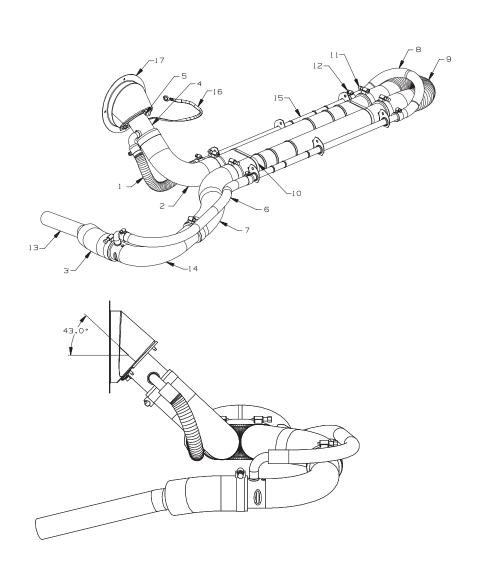
– Pipe Tank Filler CapPart Number: 15001538

Fuel Tank Filler Neck (Gas)

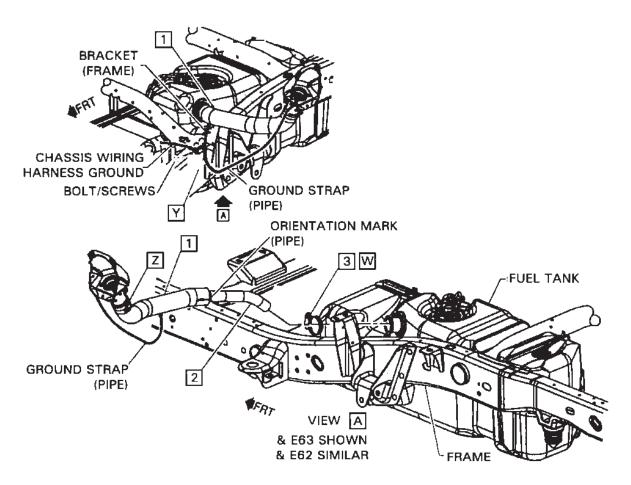
1	HOSE-F/TNK FILL VENT (GAS)	15008140	1
2	HOSE-F/TNK FIL (GAS)	15008138	1
3	HOSE-F/TNK VENT (GAS)	15008154	1
4	PIPE-FUEL TANK FILL & VENT	15150198	3
5	SCREW ASM 15008154	11515348	3
6	HOSE-F/TNK FIL VENT (GAS)	15008148	1
7	HOSE-F/TNK FIL (GAS)	15008146	1
8	HOSE-F/TNK FIL VENT (GAS)	15008144	1
9	HOSE-F/TNK FIL (GAS)	15008142	1
10	TY WRAP	00790992	2
11	CLAMP VENT HOSE	03817244	7
12	CLAMP ASM	02464901	6
13	HOSE-FUEL FILL	15008152	1
14	PIPE-FUEL FILL & VENT	15008150	2
15	PIPE-FUEL TANK FILL & VENT	15150199	7
16	STRAP ASM-FUEL TANK FILL	08913856	1
17	HOUSING-FUELTANK FILL PIPE	15629096	1
ITEM	PART DESCRIPTION	PART NUMBER	QTY

15008136 +ZW9 GAS



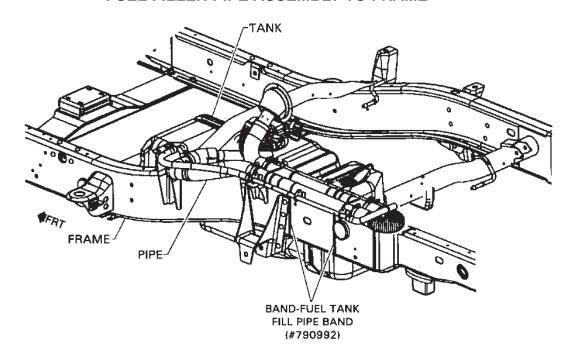


- 1 PIPE ASM
- 2 LUBRICANT APPROX. 0.0020 L
- 3 CLAMP (22lb.in)
- W CLAMP MUST BE ORIENTED BETWEEN 0° 60° AS SHOWN
- TERMINAL MUST POINT DOWN
- Z ORIENT CLAMP AS SHOWN



PICKUPS WITHOUT (ZW9)

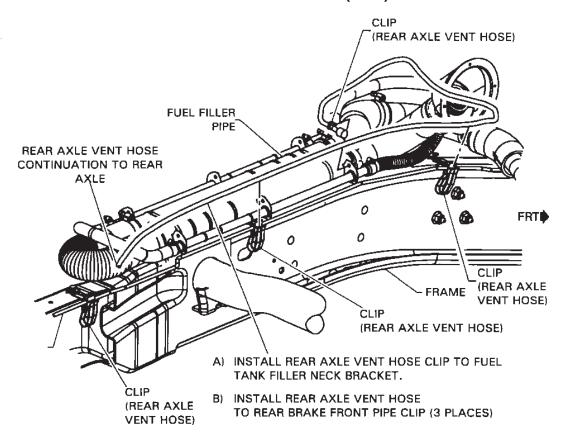
FUEL FILLER PIPE ASSEMBLY TO FRAME



INSTALL FUEL FILL PIPE TO LH FRAME RAIL WITH (Z) STRAP

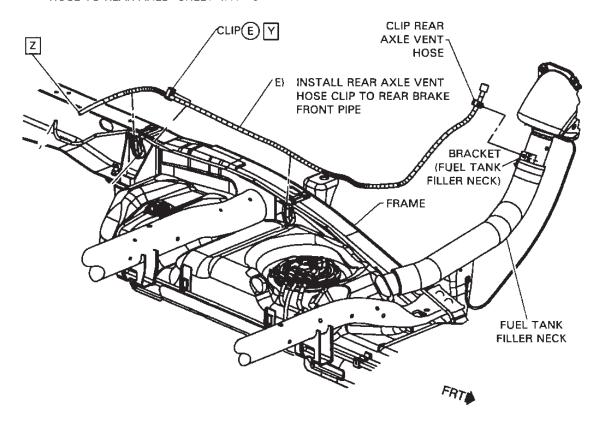
CHASSIS CAB (ZW9) TRUCKS

REAR AXLE VENT HOSE (ZW9)



REAR AXLE VENT HOSE (ZW9)

- SECURE VENT HOSE CLIP TO BRAKE LINE 10-25MM FORWARD OF BASKET CLIP.
- FOR CONTINUATION OF OSE SEE "REAR AXLE VENT HOSE TO REAR AXLE" SHEET 4A1 - 3



Tail Lamp Wiring Modifications

REAR JUNCTION BLOCK

The tail lamp wiring on the All New C/K is routed to a junction block located at the rear of the vehicle. This junction block interfaces with the rear chassis harness and breaks out the license lamp, left turn lamp and right turn lamp connections (see page 16 for connector face view). A schematic diagram of the Rear Junction Block and tail lamp circuits is shown on page 17. On trucks without the Pickup Box Delete (ZW9) option, this junction block is attached to the underside of the box and therefore must be relocated when removing the box. On trucks with ZW9, this junction block is attached to the left frame rail (see pages 18 & 19).

The parts required to relocate the Rear Junction Block to left frame are as follows:

-Junction Block
 -Junction Block Bracket
 -Bolt/Screw (two required)
 Part Number: 12191376
 Part Number: 15034931
 Part Number: 11516885

REAR TAIL LAMPS AND LICENSE PLATE LAMP

Trucks originally ordered with the ZW9 option will come equipped with separated function (stop, turn, park, backup) tail lamps which attach to the frame rails. The license plate lamp assembly will be attached to the left frame rail as shown on page 20. Pages 20 to 24 provide the assembly sequence for the tail lamps and license plate lamp assemblies for trucks built with the ZW9 option.

The parts required to install the rear tail lamps and license plate lamp assembly are as follows:

-Tail Lamp Assembly - LH	Part Number:	15029717
-Tail lamp Assembly - RH	Part Number:	15029718
-Rear License Plate Lamp Assembly	Part Number:	15154884
–Stud/plate Assembly (two required)	Part Number:	15008506
-Nut (four required)	Part Number:	11516796

COMBINATION LAMPS ON ALL NEW C/K CHASSIS

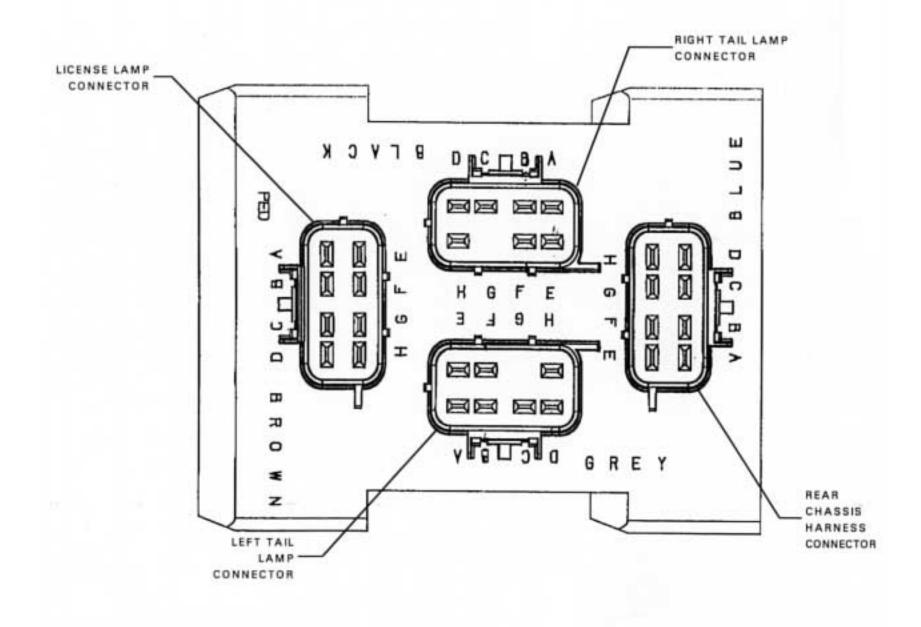
The All New C/K tail lamp wiring was designed for separated function Stop and Turn lamps, therefore, the tail lamp feeds from the rear junction block cannot be used directly for combination stop/turn lamps. Feeds for combined stop/turn lamps are, however, available off of the trailer tow harness. Trailer wiring is incorporated on all of the All New C/K trucks in one of two forms, Light Duty trailer wiring or Heavy Duty Trailer Wiring. On trucks with Light Duty trailer wiring, the trailer harness is tied back to rear cross member (see Basic Trailer Wiring Package on page 25). On trucks with Heavy Duty trailer wiring the trailer harness is run to the universal trailer connector at the rear of the vehicle (see Heavy Duty Trailer Wiring Package on page 25).

The Left Stop/Turn Lamp feed can be accessed from the Yellow wire (circuit 1618). The Right Stop/Turn Lamp feed can be accessed from the Dark Green wire (circuit 1619). A schematic diagram of the above mentioned trailer feed circuits is provided on page 26. If using these feeds, the upfitter must consider whether the truck will be used for trailer towing. If so, the upfitter must ensure that the loads of the truck stop/turn lamps combined with the trailer stop/turn lamps do not exceed the capacity of the circuits. Load guidelines for this as well as splicing guidelines can be found in the Upfitter Integration Electrical Guideline Manual.

REAR CHASSIS WIRING HARNESS AND REAR LAMP CONNECTOR FACES

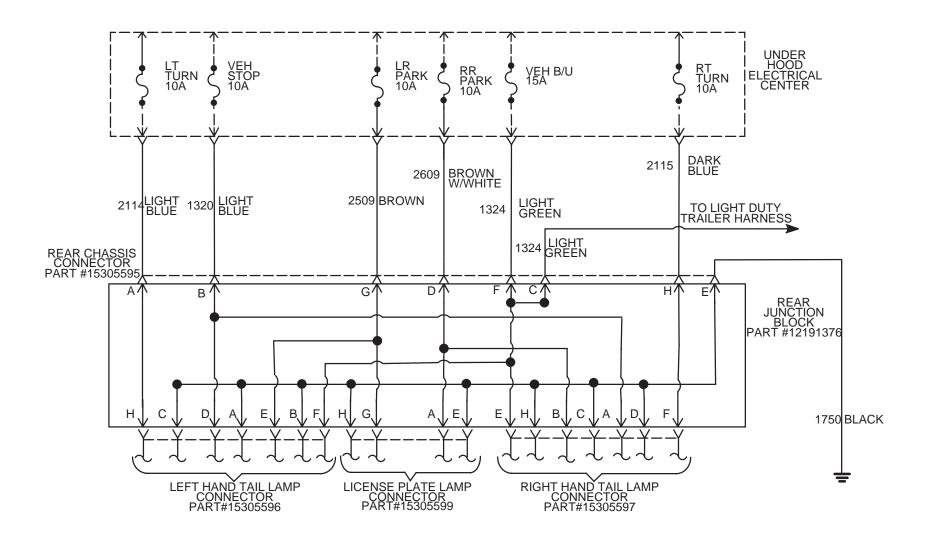
A connector face diagram of the Rear Chassis Harness Connector is shown on page 27. As was mentioned above, under the Rear Junction Block heading, the Rear Chassis Harness interfaces with the Rear Junction Block where the rear lamp circuits are broke out. If the upfitter prefers to interface directly with this connector, thus eliminating the Rear Junction Block, an in–line mating connector is available and can be obtained by ordering part number 15326788. Connector faces for the Tail Lamp Connectors and Rear License Plate Lamp Connector are also provided and are shown on pages 28 through 30. Please note that these connectors can either be purchased from a local GM dealer or through Packard by calling 1–800–PACKARD (722–5273).

REAR JUNCTION BLOCK AS VIEWED FROM REAR OF VEHICLE WITH ZW9

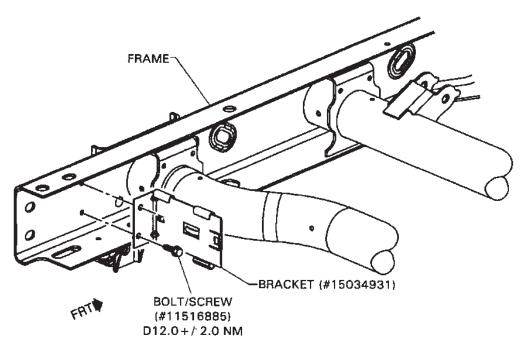


PAGE

REAR JUNCTION BLOCK ELECTRICAL DIAGRAM



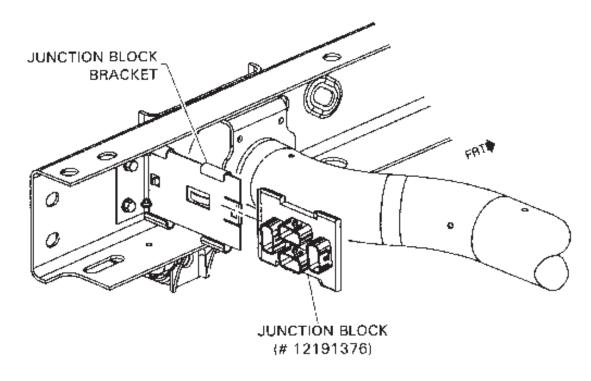
REAR JUNCTION BLOCK BRACKET TO FRAME



JUNCTION BLOCK BRACKET ATTACHED TO FRAME WITH (2) BOLT/SCREWS

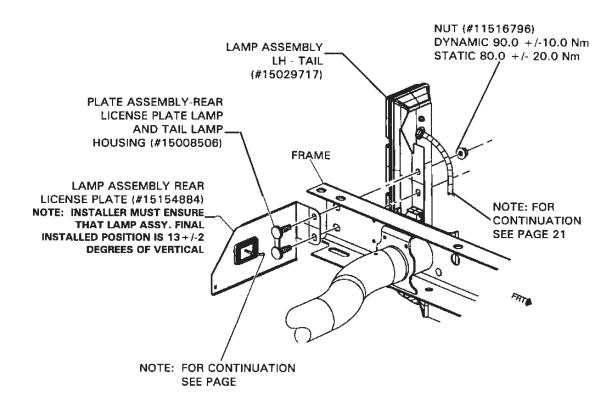
Chassis Cab (ZW9) Trucks

REAR JUNCTION BLOCK INSTALLATION



JUNCTION BLOCK INSTALLED TO JUCTION BLOCK BRACKET

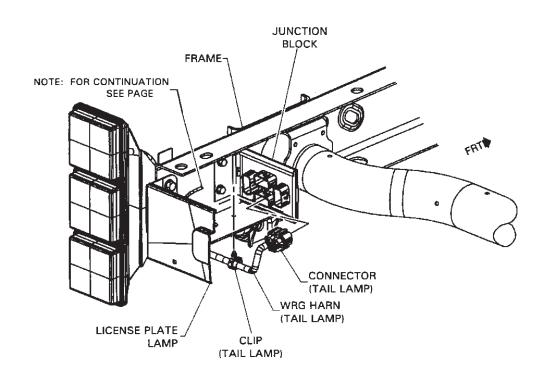
LEFT HAND TAIL LAMP TO FRAME



LICENSE PLATE LAMP AND TAIL LAMP ASSEMBLIES ARE FASTENED TO FRAME RAIL WITH PLATE ASSEMBLY AND TWO NUTS.

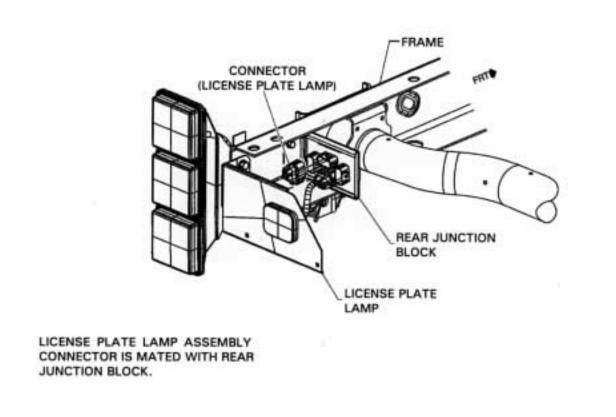
Chassis Cab (ZW9) Trucks

LEFT HAND TAIL LAMP TO JUNCTION BLOCK



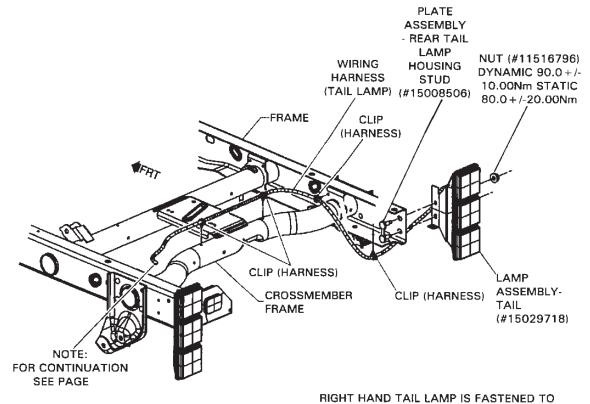
TAIL LAMP HARNESS IS FASTENED TO FRAME WITH CLIP AS SHOWN.
CONNECTOR IS THEN MATED WITH THE REAR JUNCTION BLOCK.

LICENSE PLATE LAMP TO REAR JUNCTION BLOCK



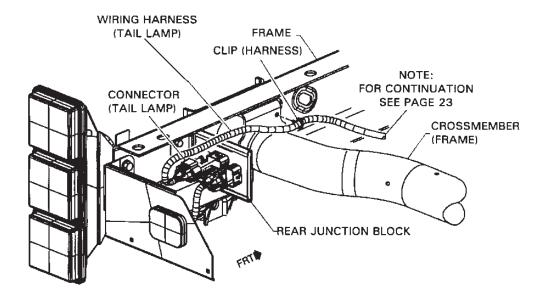
Chassis Cab (ZW9) Trucks

RIGHT HAND TAIL LAMP TO FRAME

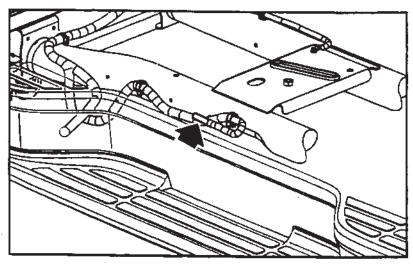


FRAME WITH (1) STUD PLATE AND (2)
NUTS. TAIL LAMP HARNESS IS FASTENED
TO FRAME WITH (2) CLIPS AND FASTENED
TO CROSSMEMBER WITH (2) CLIPS.
NOTE: PROCEDURE DOES NOT SHOW BACKUP
ALARM (8S3)

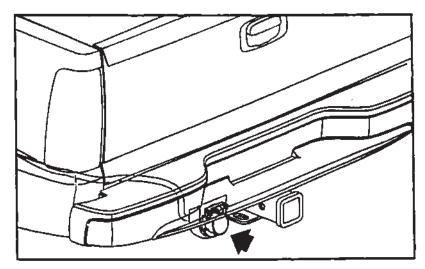
RIGHT HAND TAIL LAMP TO FRAME



RIGHT HAND TAIL LAMP CONNECTOR IS MATED WITH REAR JUNCTION BLOCK. NOTE: PROCEDURE DOES NOT SHOW BACK-UP ALARM (8S3)

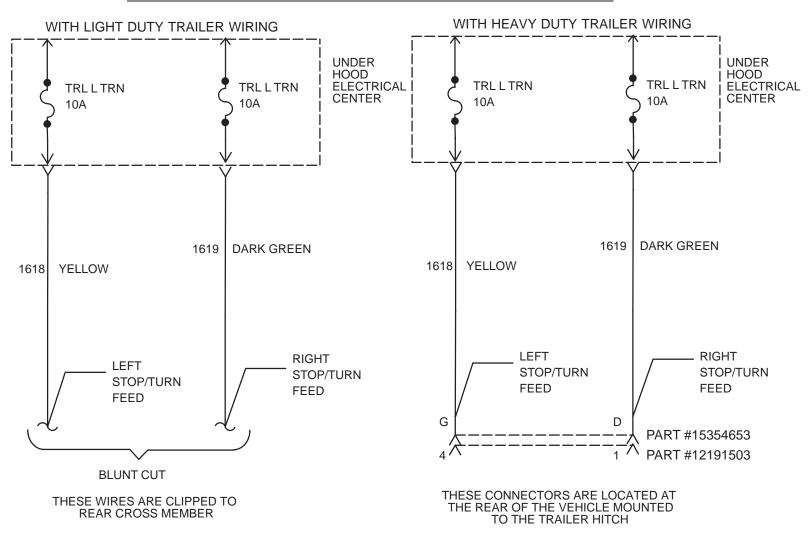


BASIC TRAILER WIRING PACKAGE

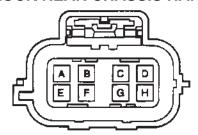


HEAVY DUTY TRAILER WIRING PACKAGE (IF EQUIPPED)

TRAILER WIRING STOP/TURN CIRCUIT ELECTRICAL DIAGRAM



REAR JUNCTION BLOCK REAR CHASSIS HARNESS CONNECTOR



CAVITY	WIRE COLOR	CIRCUIT NO.	FUNCTION
Α	LIGHT BLUE	2114	LEFT TURN SIGNAL
В	LIGHT BLUE	1320	STOP LAMPS (CHMSL)
c*	LIGHT GREEN	1324	VEHICLE BACKUP LAMPS- FEED TO LIGHT DUTY TRAILER WIRING HARNESS
D	BROWN W/WHITE	2609	RIGHT REAR PARKING LAMPS
E	BLACK	1750	GROUND
F	LIGHT GREEN	1324	VEHICLE BACKUP LAMPS
G	BROWN	2509	LEFT REAR PARKING LAMPS
н	DARK BLUE	2115	RIGHT TURN SIGNAL

^{*}This pin is used only on trucks with light duty trailer wiring, on trucks with heavy duty trailer wiring, this connector will be a 7-way connector

Connector Infomation

8-way Connector Assy. Part No.:15317304 Color: Blue 7-way Connector Assy. Part No.:15317309 Color: Purple

Mating Connector Information

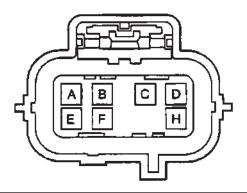
In addition to the Rear Junction Block, the rear junction block connector (both 7-way and

8-way) can be mated with the following in-line connector:

Connector Part No.: 15326788

Primary Lock Reinforcement (PLR): 15326794 Total Position Assurance (TPA) clip: 15317301

REAR JUNCTION BLOCK REAR LEFT HAND TAIL LAMP CONNECTOR



CAVITY	WIRE COLOR	CIRCUIT NO.	FUNCTION
Α	BLACK	1750	GROUND - LH STOP/PARK LAMPS
В	BLACK	1750	GROUND - LH BACKUP LAMP
O	BLACK	1750	GROUND-LH TURN SIGNAL LAMP
D	LIGHT BLUE	1320	LEFT STOP LAMP
ε	BROWN	2509	LEFT REAR PARKING LAMP
F	LIGHT GREEN	1324	LEFT BACKUP LAMP
G			NOT USED
н	LIGHT BLUE	2114	LEFT TURN SIGNAL LAMP

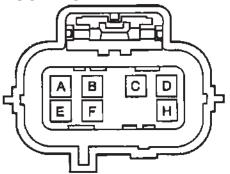
Connector Infomation

8-way Connector Assy. Part No.:15317305

Color: Gray

Primary Lock reinforcement (PLR): 15326794
Total Position Assurance (TPA) clip: 15317301

REAR JUNCTION BLOCK RIGHT HAND TAIL LAMP CONNECTOR



CAVITY	WIRE COLOR	CIRCUIT NO.	<u>FUNCTION</u>
А	LIGHT BLUE	1320	RIGHT STOP LAMP
В	BROWN W/WHITE	260 9	RIGHT REAR PARKING LAMP
С	BLACK	1750	GROUND - RH STOP/ PARK LAMP
D	BLACK	1750	GROUND - RH TURN SIGNAL LAMP
E	LIGHT GREEN	1324	RIGHT BACKUP LAMP
F	DARK BLUE	2115	RIGHT TURN SIGNAL LAMP
G			NOT USED
н	BLACK	1750	GROUND - RH BACKUP LAMP

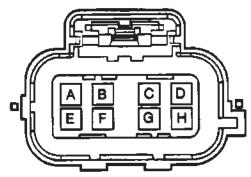
Connector Infomation

Connector Assy. Part No.: 15317306

Color: Black

Primary Lock Reinforcement (PLR): 15326794 Total Position Assurance (TPA) clip: 15317301

REAR JUNCTION BLOCK REAR LICENSE PLATE LAMP CONNECTOR



CAVITY	WIRE COLOR	CIRCUIT NO.	FUNCTION
Α	BROWN W/WHITE	2609	RIGHT LICENSE PLATE LAMP
В			NOT USED
С		***	NOT USED
D			NOT USED
E	BLACK	1750	GROUND-RIGHT LICENSE PLATE LAMP
F			NOT USED
G	BROWN	2509	LEFT LICENSE PLATE LAMP
н	BLACK	1750	GROUND - LEFT LICENSE PLATE LAMP

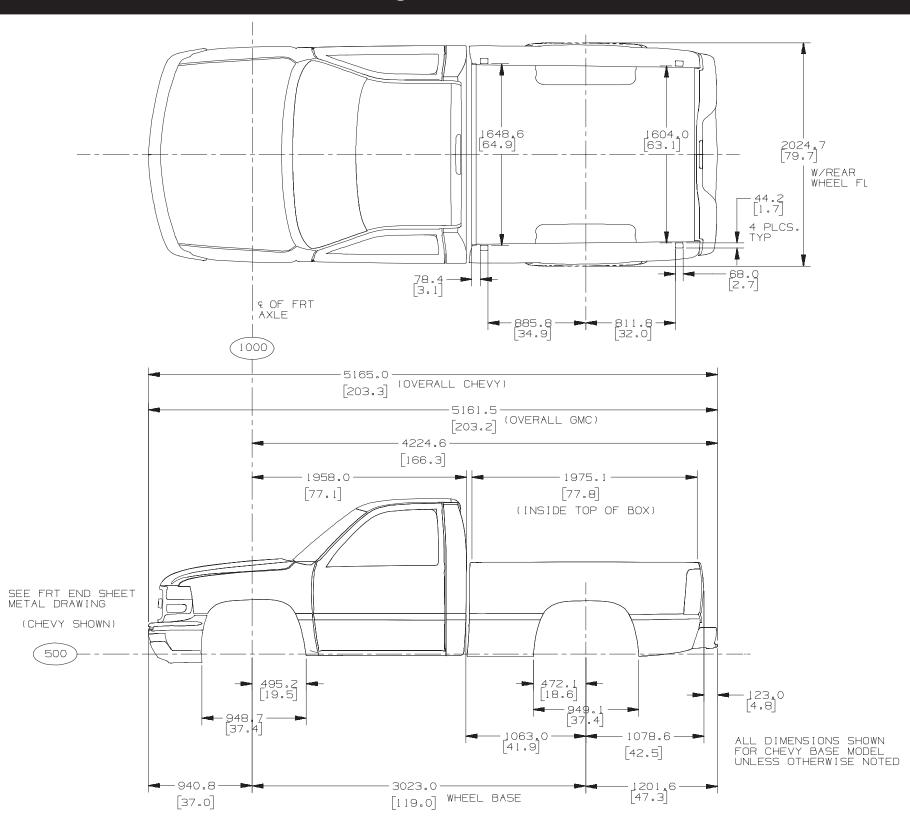
Connector Infomation

Connector Assy. Part No.: 15317307

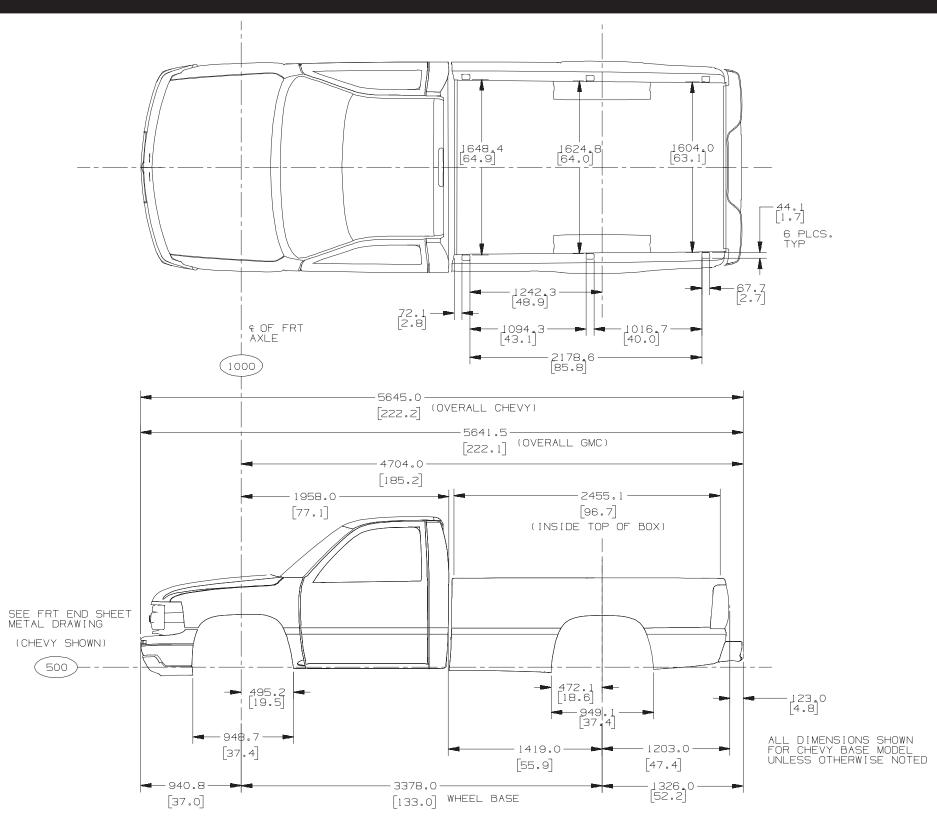
Color: White

Primary Lock Reinforcement (PLR): 15326794 Total Position Assurance (TPA) clip: 15317301

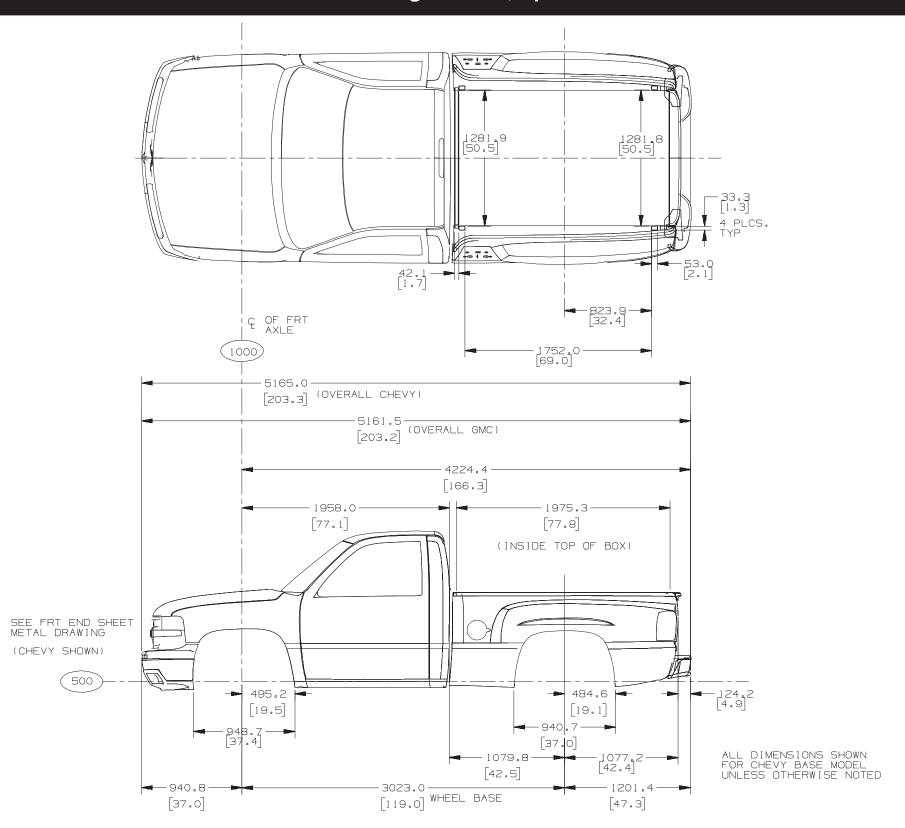
C/K 15703 Regular Cab with Short box



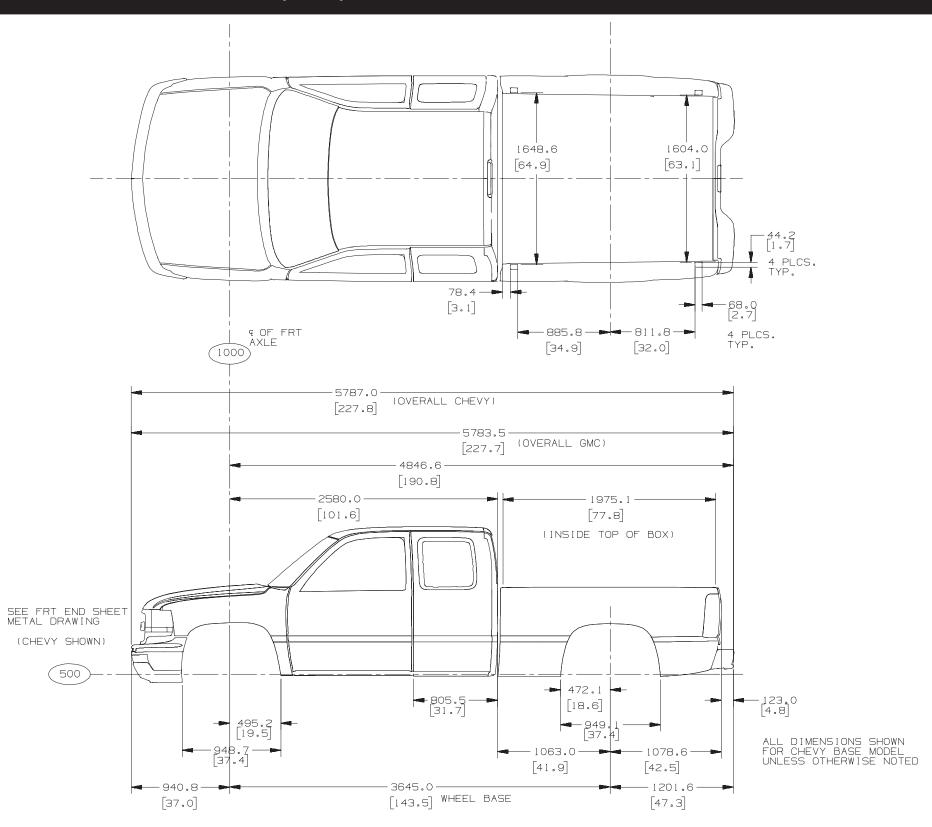
C/K (15/25)903 Regular Cab with Long Box



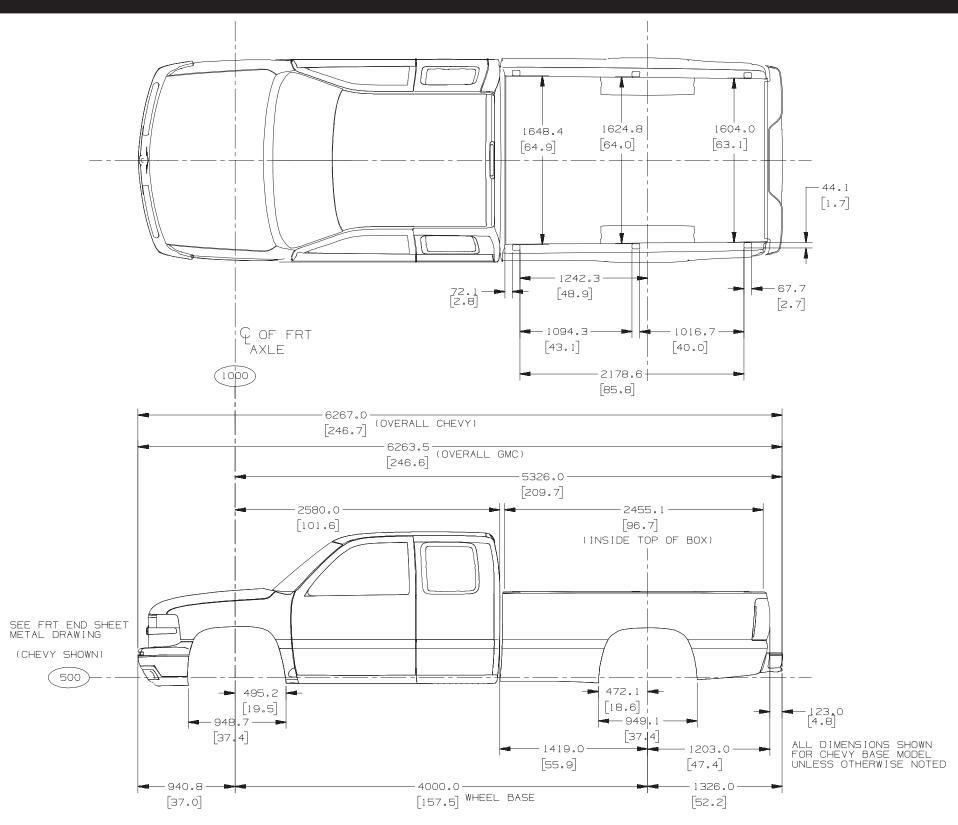
C/K 15703 Regular Cab, Sportside



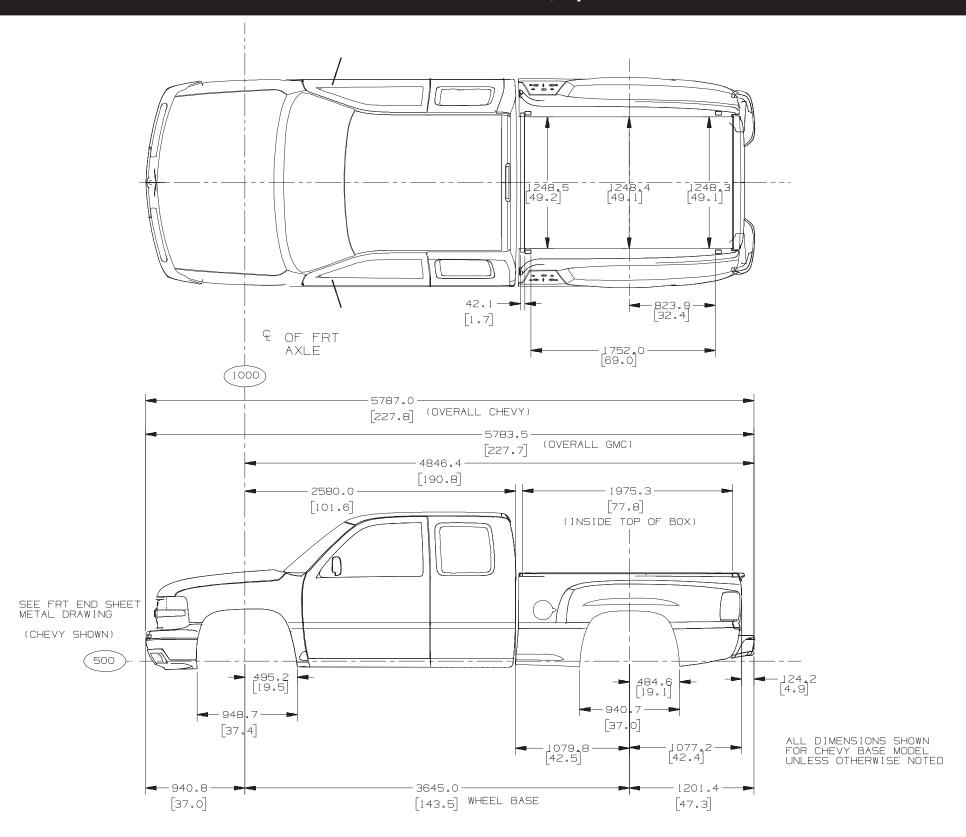
C/K (15/25)753 Extended Cab with Short Box



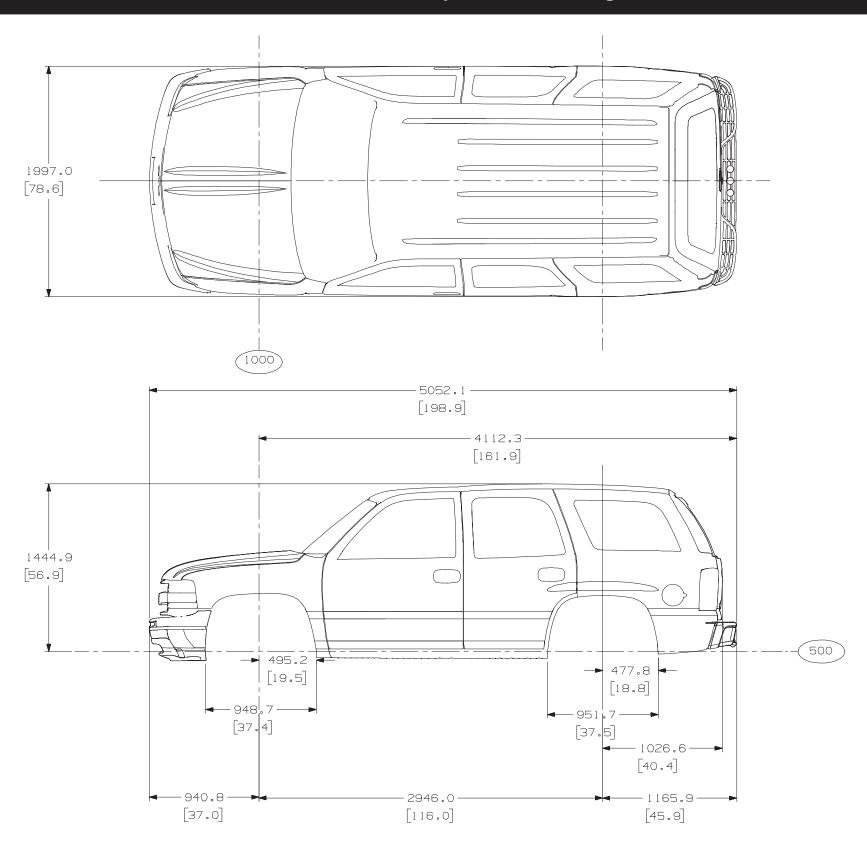
C/K (15/25)953 Extended Cab with Long Box



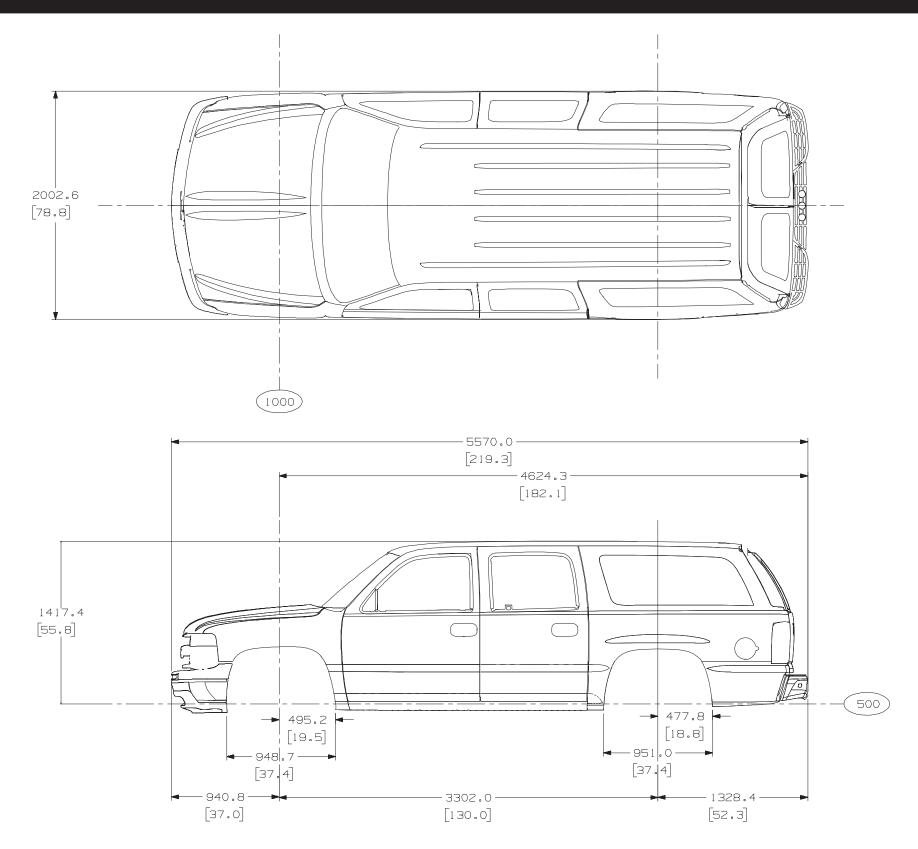
C/K 15753 Extended Cab, Sportside



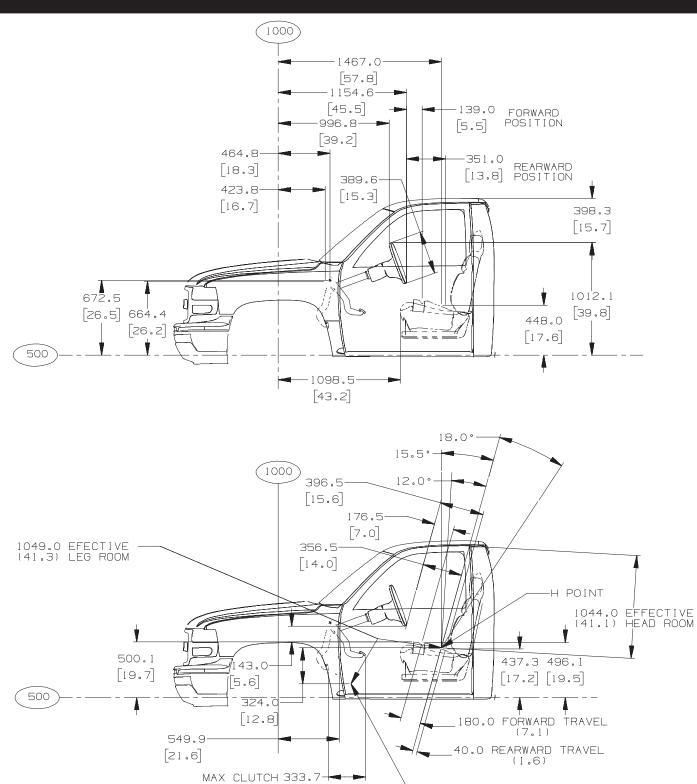
C/K 15706 – 4 Door Utility General Arrangement



C/K (15/25) 906 – Suburban General Arrangement



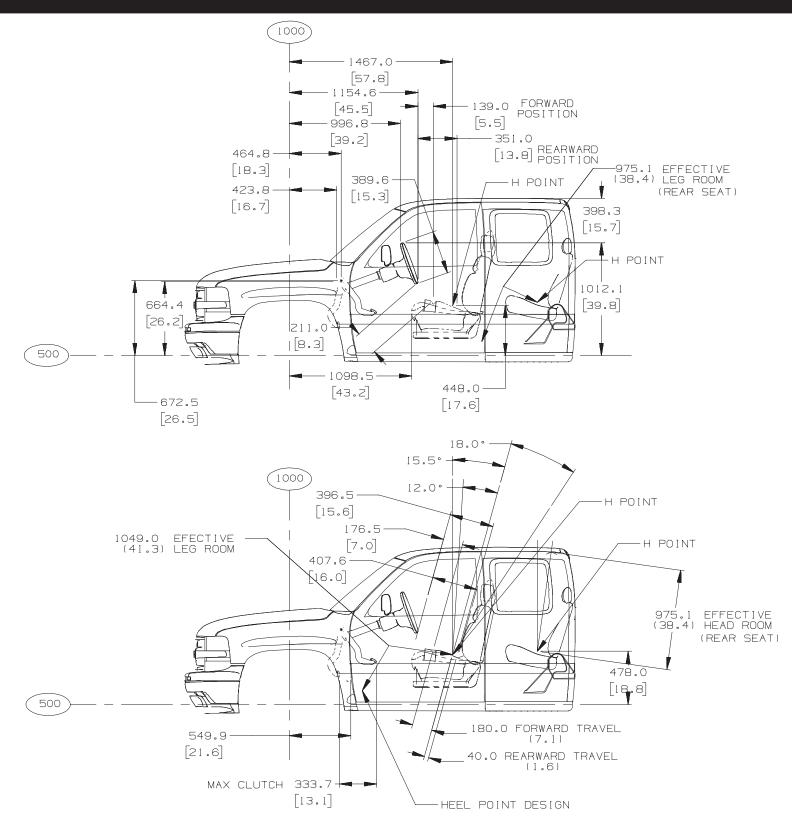
C/K (15/25)(7/9)03 Regular Cab Interior



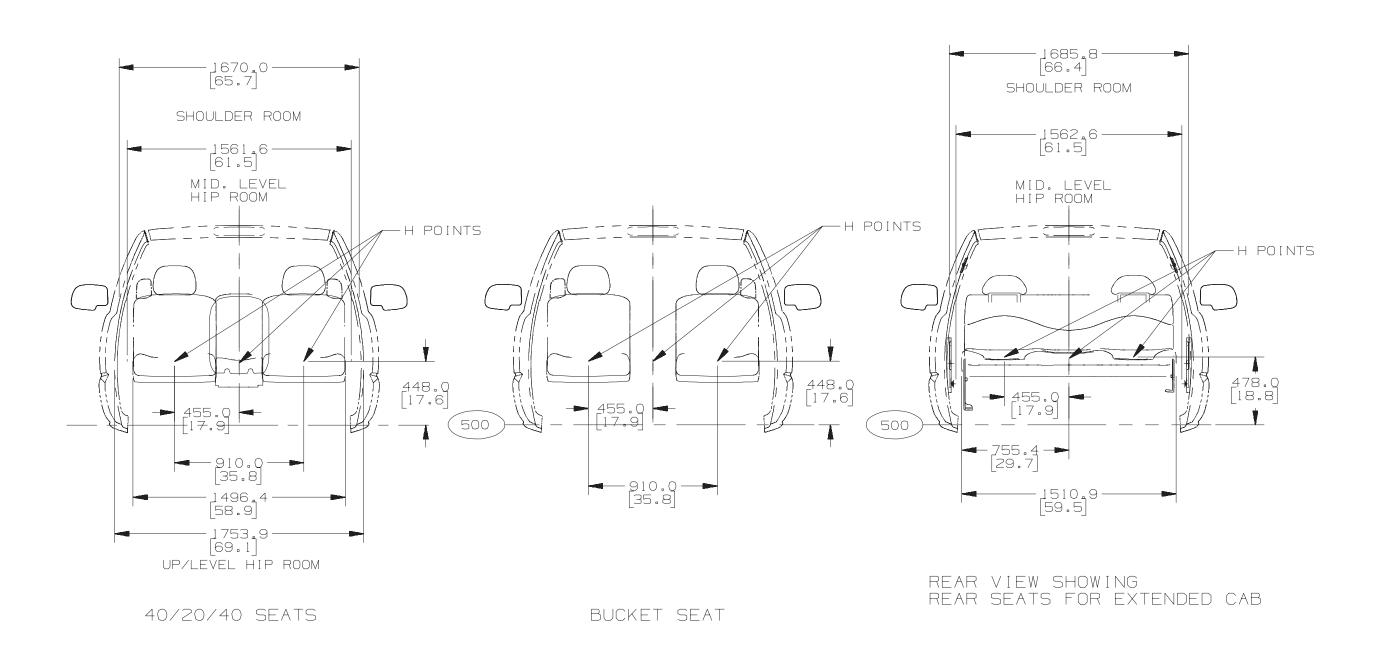
[13.1]

-HEEL POINT DESIGN

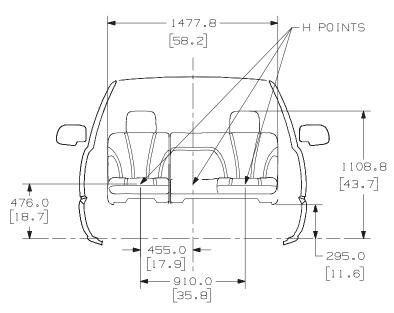
C/K (15/25)(7/9)53 Extended Cab Interior



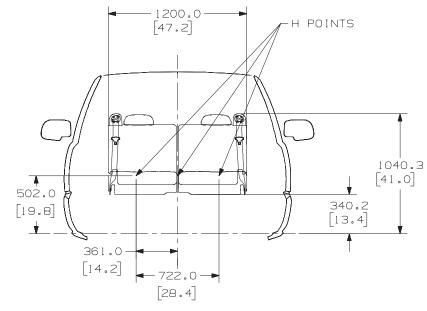
C/K (15/25)(7/9)(03/53) Interior Seating Positions



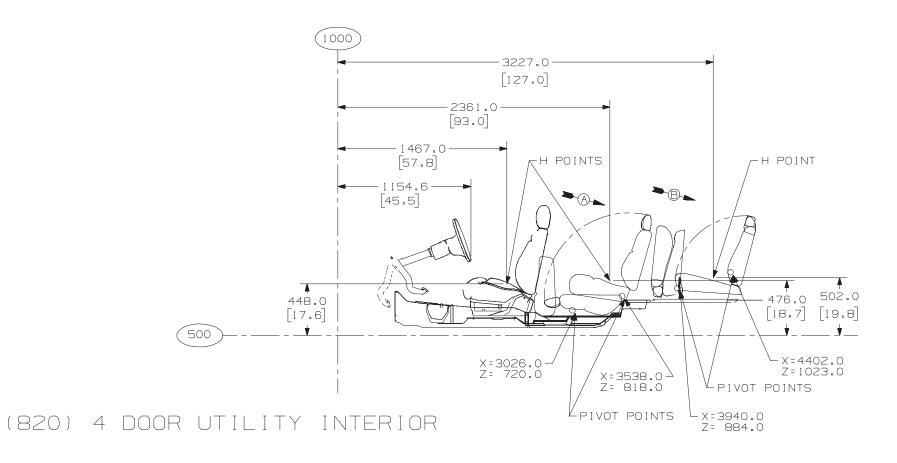
C/K 15706 – Interior Seating Position



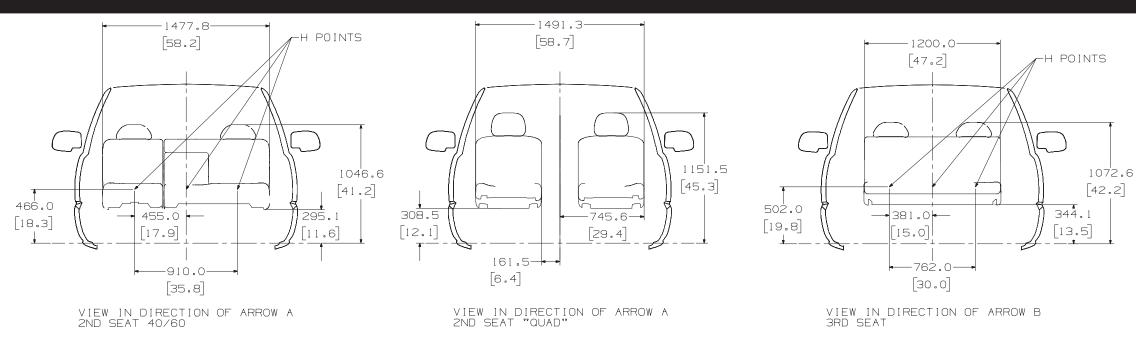
VIEW IN DIRECTION OF ARROW A 2ND SEAT 40/60

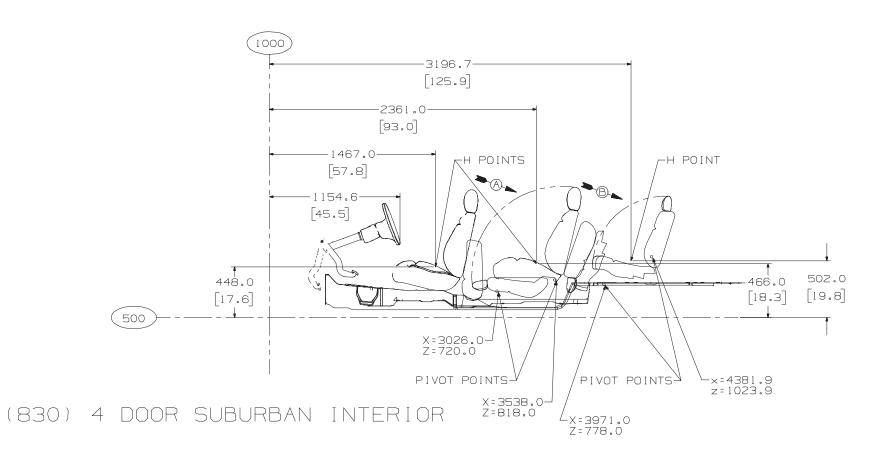


VIEW IN DIRECTION OF ARROW B 3RD SEAT 50/50 SPLIT (OPTIONAL)

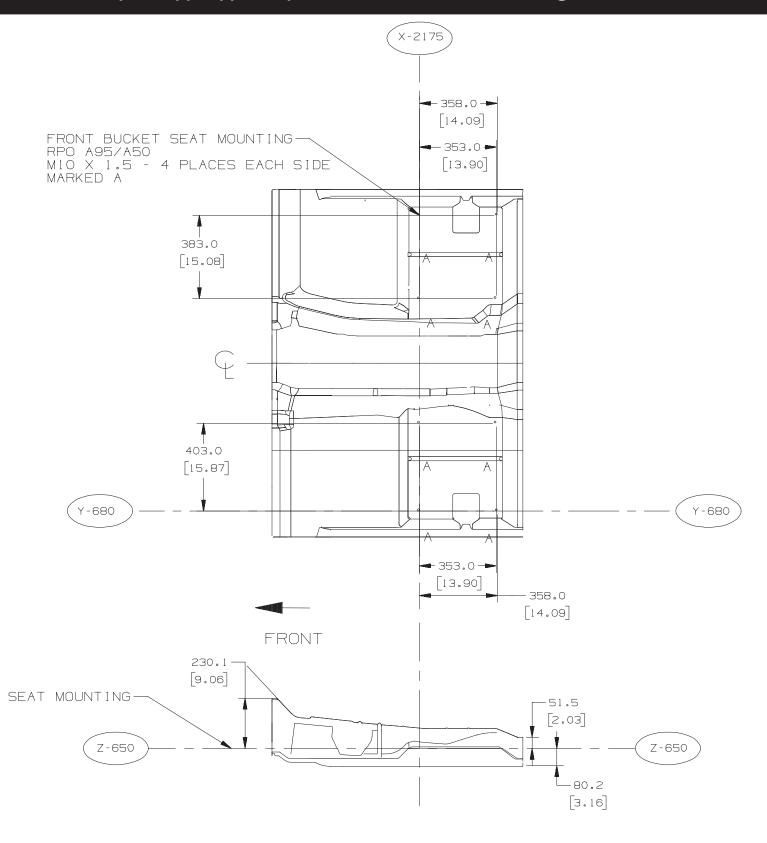


C/K (15/25) 906 – Interior Seating Position





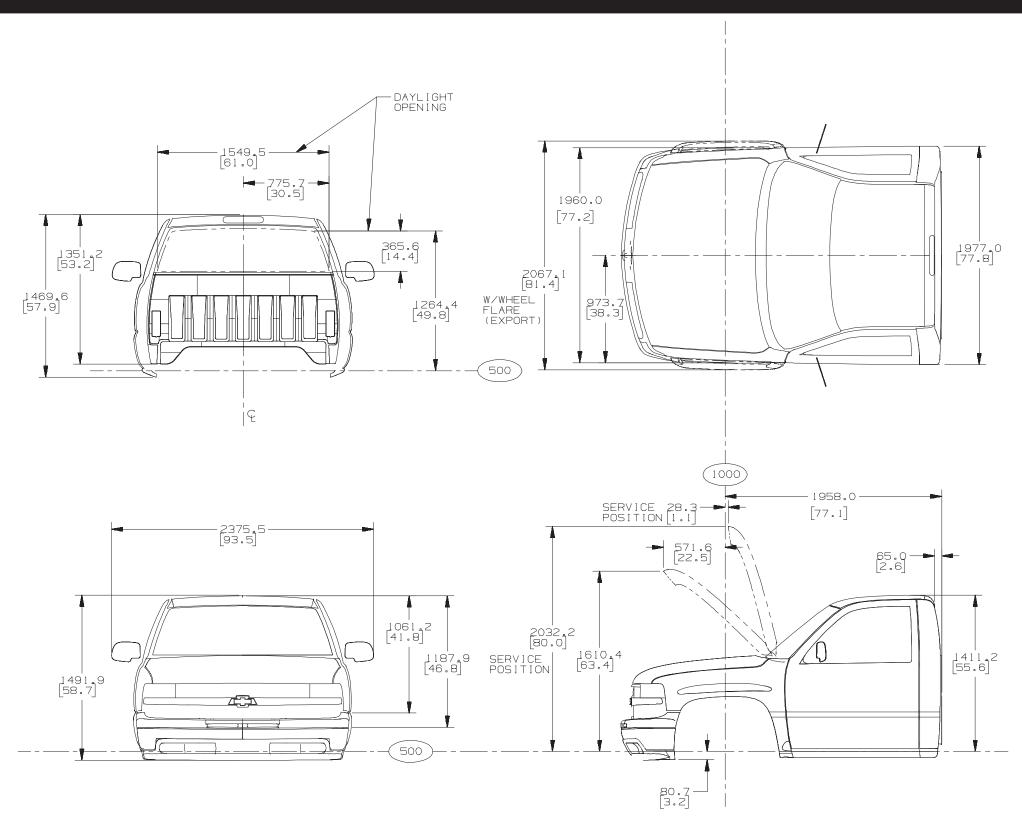
C/K (15/25)(7/9)(03/53) Front Floor Seat Mounting Locations



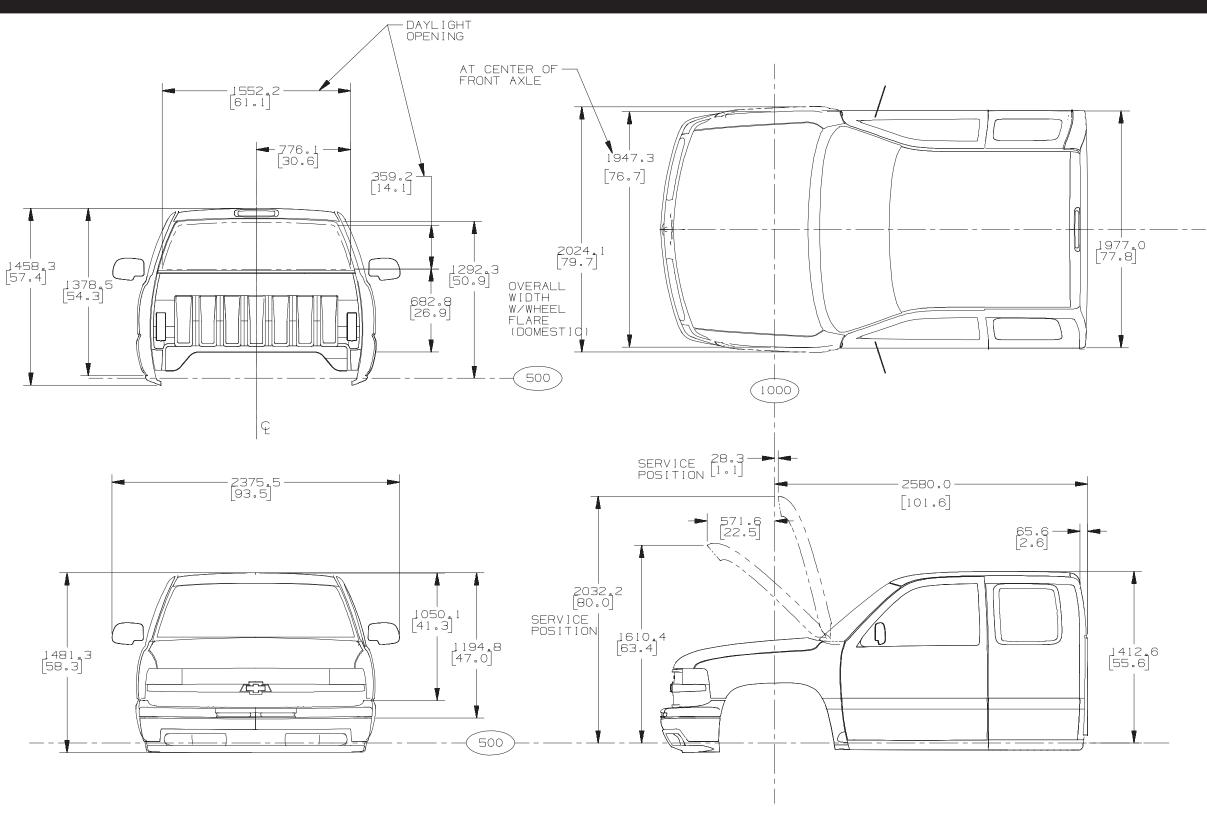
PAGE

C/K TRUCK (NEW)

C/K (15/25)(7/9)03 Regular Cab Exterior



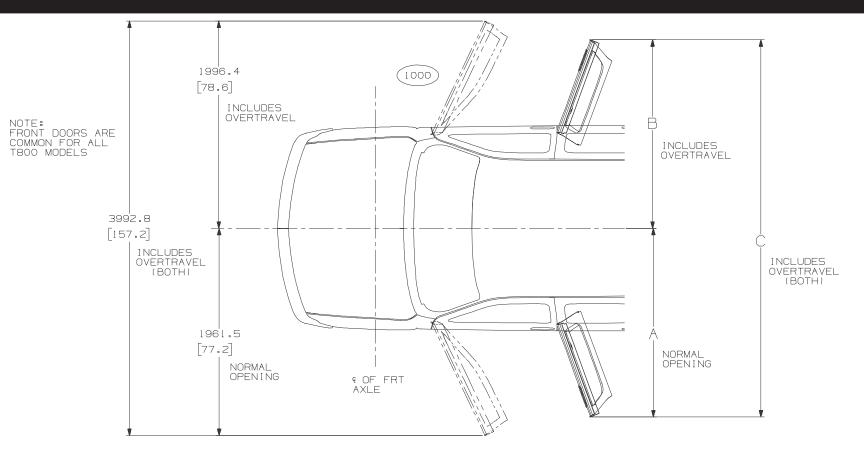
C/K (15/25)(7/9)53 Extended Cab Exterior



PAGE

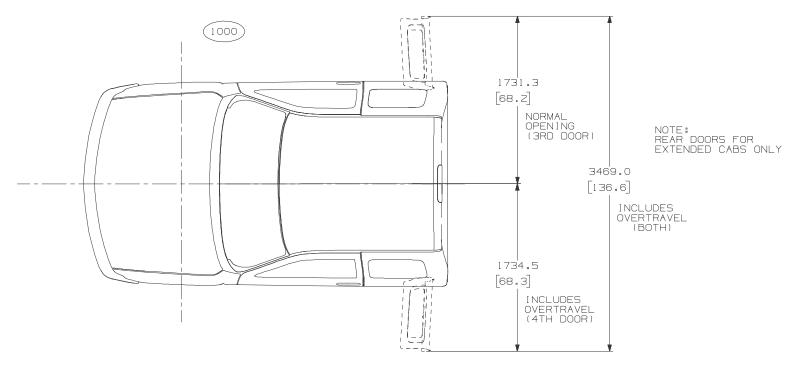
C/K TRUCK (NEW)

C/K (15/25)(7/9)(03/53/06) Door Openings

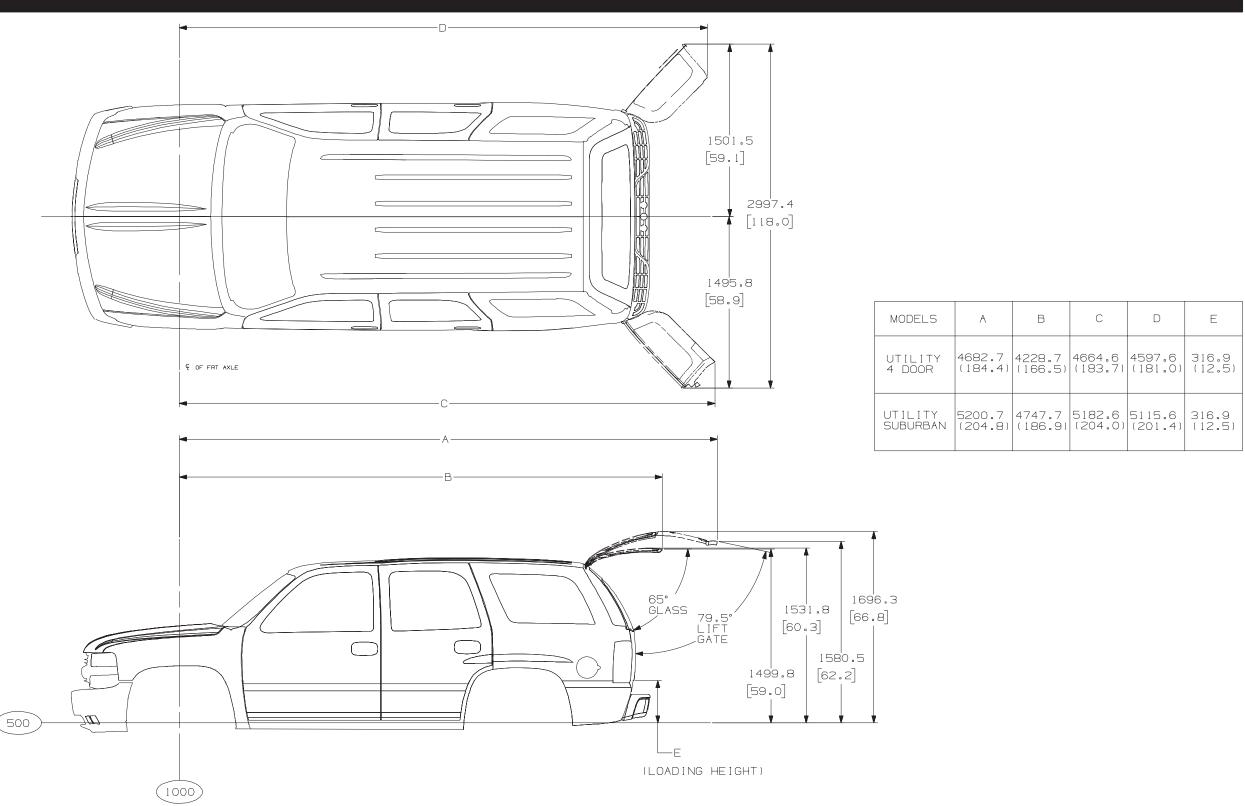


REAR DOOR CHART							
	A	В	С				
UTILITY 4 DOOR	1811.7 (71.3)	1846.0 (72.7)	3692.1 (145.4)				
UTILITY SUBURBAN	1783.2 (70.2)		3635.0 (143.1)				
CREW CAB	1783.2 (70.2)		3635.0 (143.1)				
*EXTENDED CAB SEE BELOW							

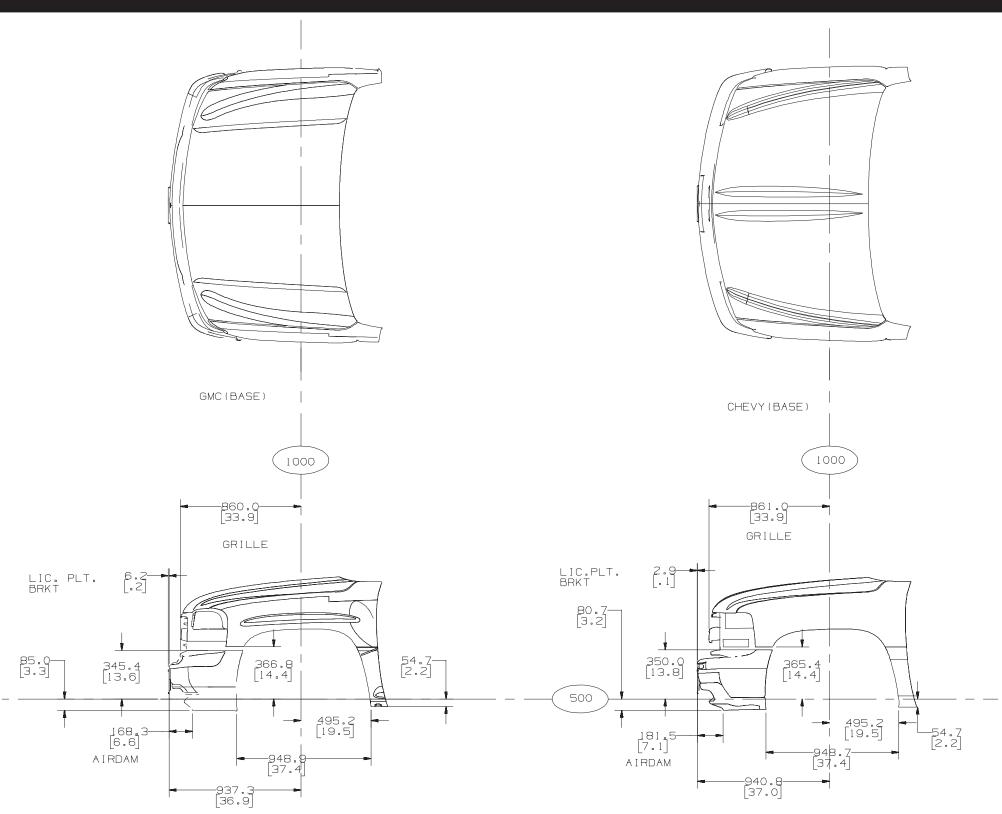
ALL DIMENSIONS SHOWN FOR CHEVY BASE MODEL UNLESS OTHERWISE NOTED



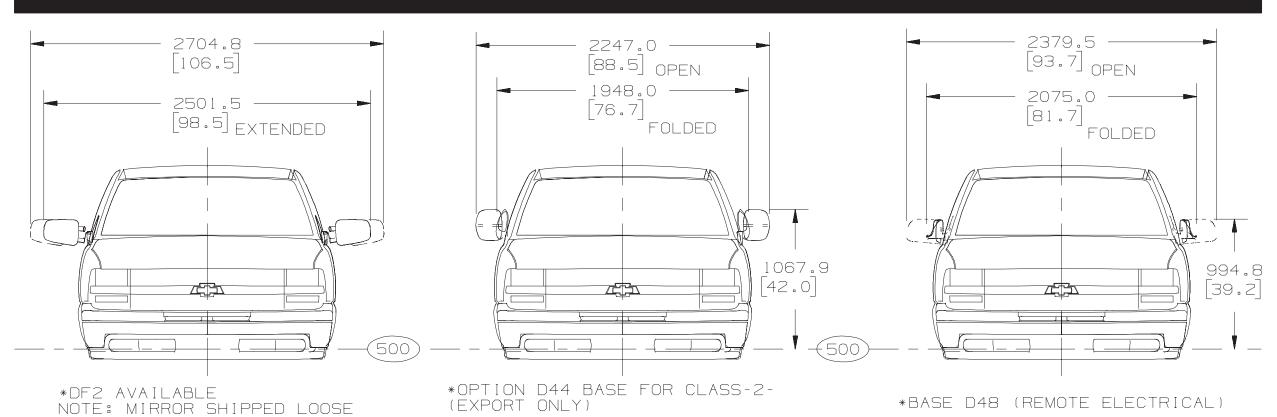
C/K (15/25)(7/9) 06 – Rear Door Openings

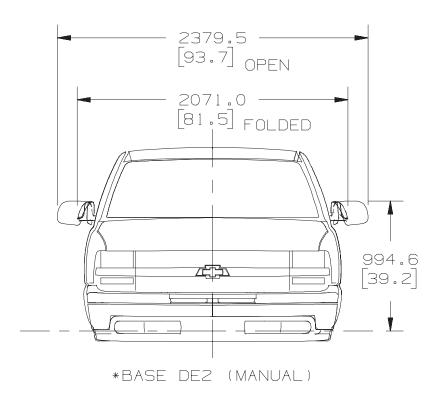


C/K (15/25)(7/9)(03/53/06) Front End Sheet Metal

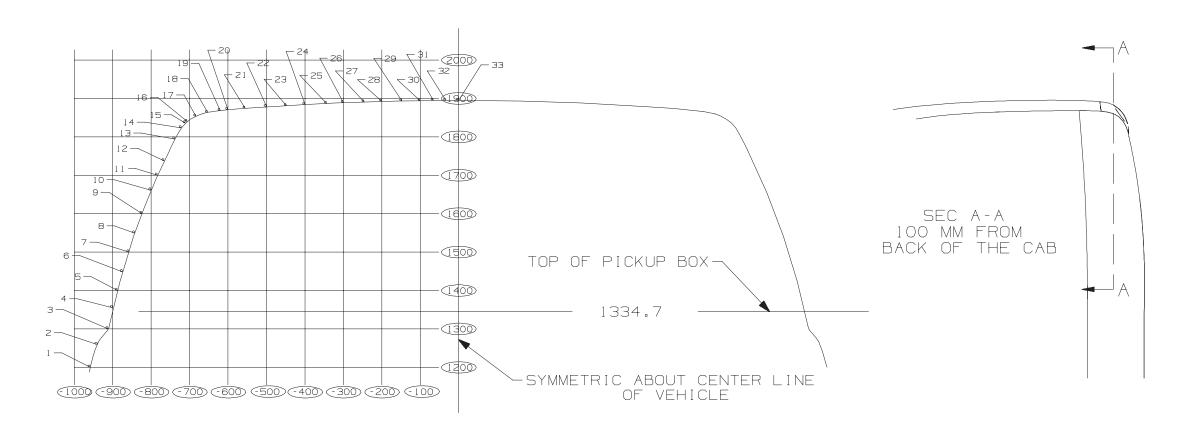


C/K (15/25)(7/9)(03/53/06) Outside, Rearview Mirror Options





C/K (15/25)(7/9)(03/53) Cab Profile Nominal, Regular/Extended Cab



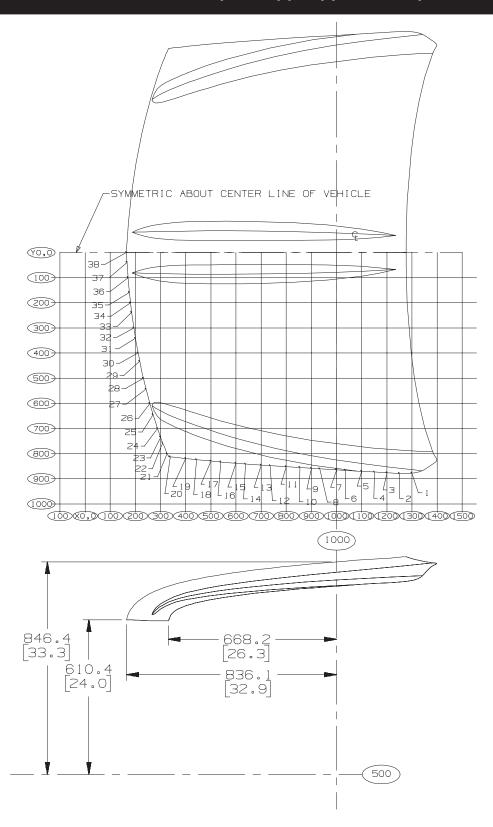
DRIVER SIDE COORDINATES

PT #	WIDTH	HE I GHT			
1	-958.74	1200.00			
2	-938.08	1264.98			
3	-911.62	1300.00			
4	-900.00	1350.59			
5	-888.05	1400.00			
6	-873.75	1452.70 1500.00 1540.87 1600.00			
7	-859.42				
8	-845.94				
9	-824.57				
10	-800.00	1661.35			
1 1	-783.23	1700.00			

PT # WIDTH HEIGHT			
12 -751.80 1766.91			
13 -734.80 1800.00			
14 -724.51 1818.00			
15 -714.22 1831.97	1831.97		
16 -700.00 1844.60			
17 -677.79 1855.90			
18 -655.00 1863.47			
19 -625.19 1867.85			
20 -600.00 1870.63			
21 -550.40 1874.64			
22 -500.00 1878.10			

PT #	WIDTH	HE I GHT			
23	-440.45	1881.76			
24	-400.00	1884.02			
25	-352.43	1886.44			
26	-300.00	1888.82			
27	-247.74	1890.81			
28	-200.00	1892.29			
29	-143.45	1893.59			
30	-100.00	1894.30			
31	-065.20	1894.69			
32	-026.00	1894.94			
33	000.00	1895.00			

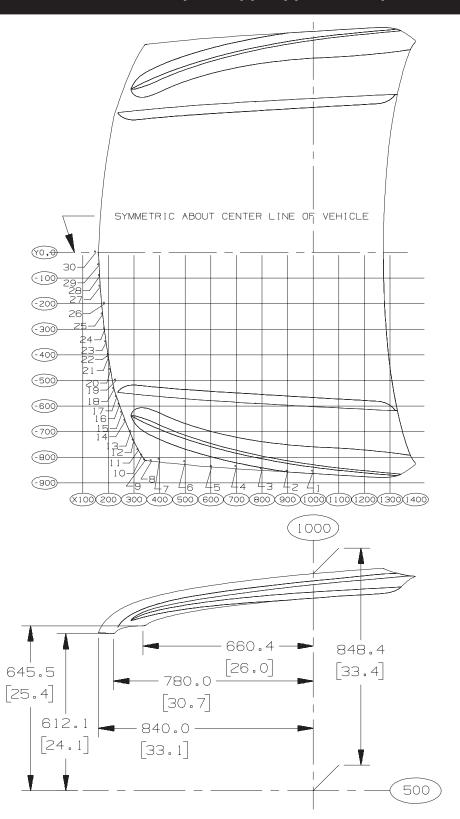
C/K (15/25)(7/9)(03/53/06) Hood Profile (Chevy)



PT #	LENGTH	WEIDTH			
1	1300.0	-877.8			
2	1249.8	-878.8			
3	1200.0	-876.2			
4	1150.9	-873.2			
5	1100.0	-820.1			
6	1035.0	-866.4			
7	1000.0	-864.2			
8	933.5	-860.2			
9	900.0	-858.1			
10	853.6	-855.3			
1 1	800.0	-851.9			
12	736.2	-847.8			
13	700.0	-845.4			
14	637.8	-841.0			
15	600.0	-838.1			
16	539.9	-838.1			
17	500.0	-829.6			
18	442.9	-824.0			
19	400.0	-819.4			
20	339.2	-812.7			
21	326.4	-800.0			
22	308.6	-757.2			
23	300.0	-734.2			
24	287.9	-700.0			
25	270.0	-644.6			
26	257.0	-600.0			
27	242.0	-543.7			
28	231.4	-500.0			
29	216.9	-433.0			
30	210.5	-400.0			
31	200.0	-341.1			
32	193.5	-300.0			
33	184.7	-237.2			
34	180.2	-200.0			
35	175.8	158.3			
36	170.6	-100.0			
37	166.6	-39.6			
38	164.6	00.0			

DRIVER SIDE COORDINATES

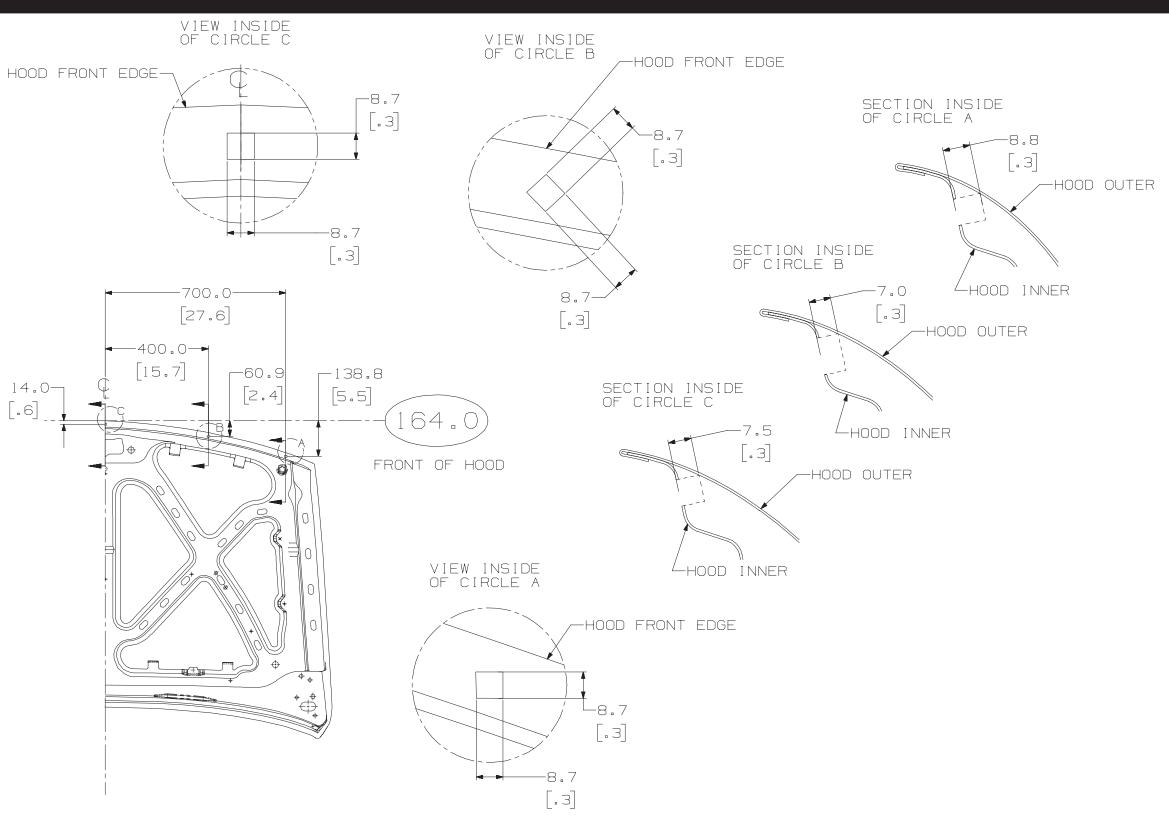
C/K (15/25)(7/9)(03/53/06) Hood Profile (GMC)



PT#	LENGTH	WIDTH		
1	1000.0	-863.8		
2	900.0	-857.7		
Э	800.0	-851.5		
4	700.0	-845.0		
5	600.0	-837.7		
6	500.0	-829.2		
7	400.0	-819.0		
ϖ	364.4	-815.2		
9	343.4	-812.4		
10	334.5	-800.0		
1 1	317.2	-772.3		
12	300.0	-739.7		
13	281.9	-700.0		
14	267.8	-663.5		
15	254.9	-629.0		
16	244.5	-600.0		
17	232.7	-568.8		
18	223.3	-536.5		
19	215.5	-500.0		
20	209.0	-464.0		
21	200.0	-410.0		
22	197.9	-400.0		
23	192.0	-358.1		
24	183.7	-300.0		
25	178.3	-249.7		
26	173.5	-200.0		
27	168.6	-141.8		
28	165.6	-100.0		
29	163.6	-33.5		
30	161.5	00.0		

DRIVER SIDE COORDINATES

C/K (15/25)(7/9)(03/53/06) Hood Inner Panel

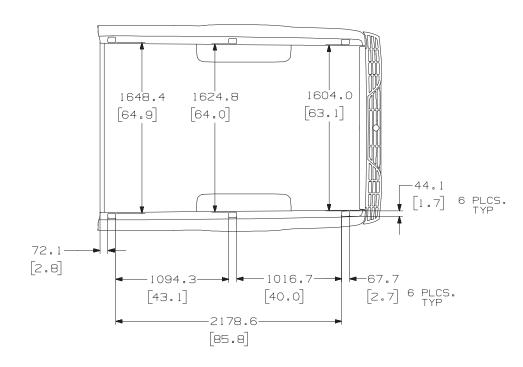


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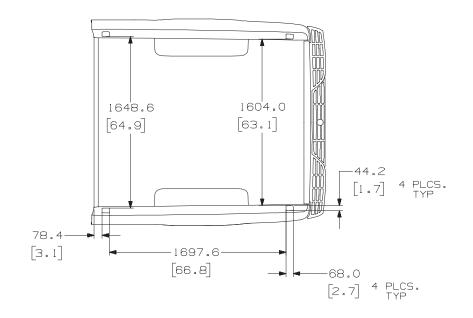
C/K TRUCK (NEW)

C/K (15/25)(7/9)(03/53) Stake Pockets

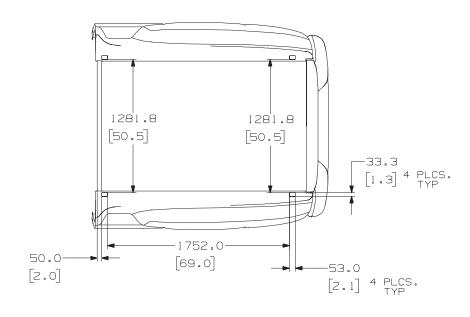
8.0 FLEETSIDE PICKUP BOX



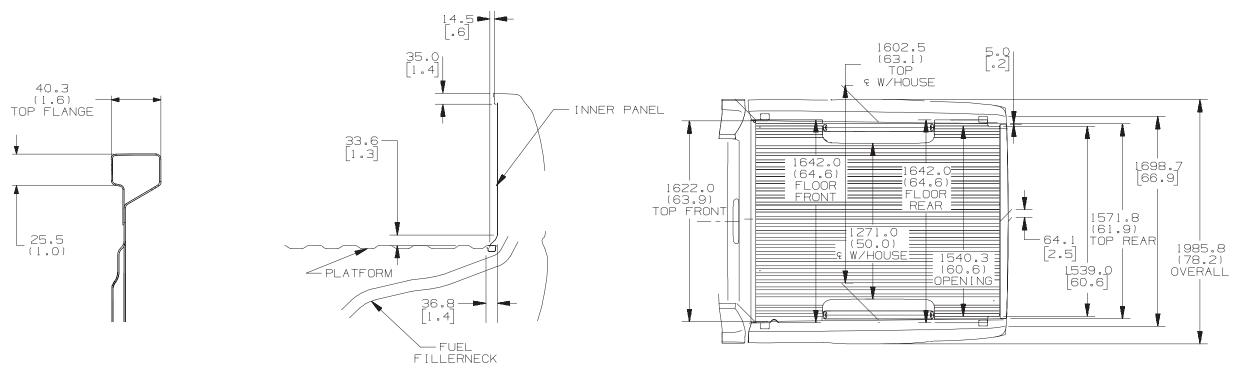
6.5 FLEETSIDE PICKUP BOX



6.5 SPORTSIDE PICKUP BOX



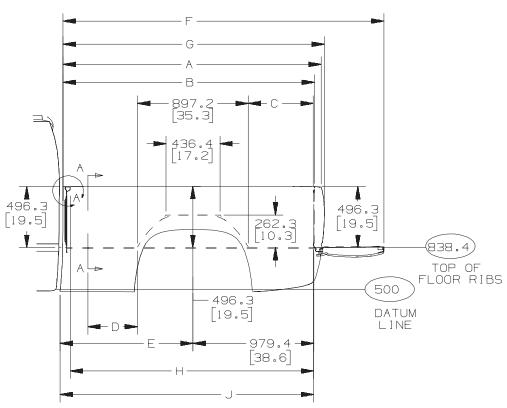
C/K (15/25)(7/9)(03/53) Fleetside



VIEW IN CIRCLE

SECTION A-A

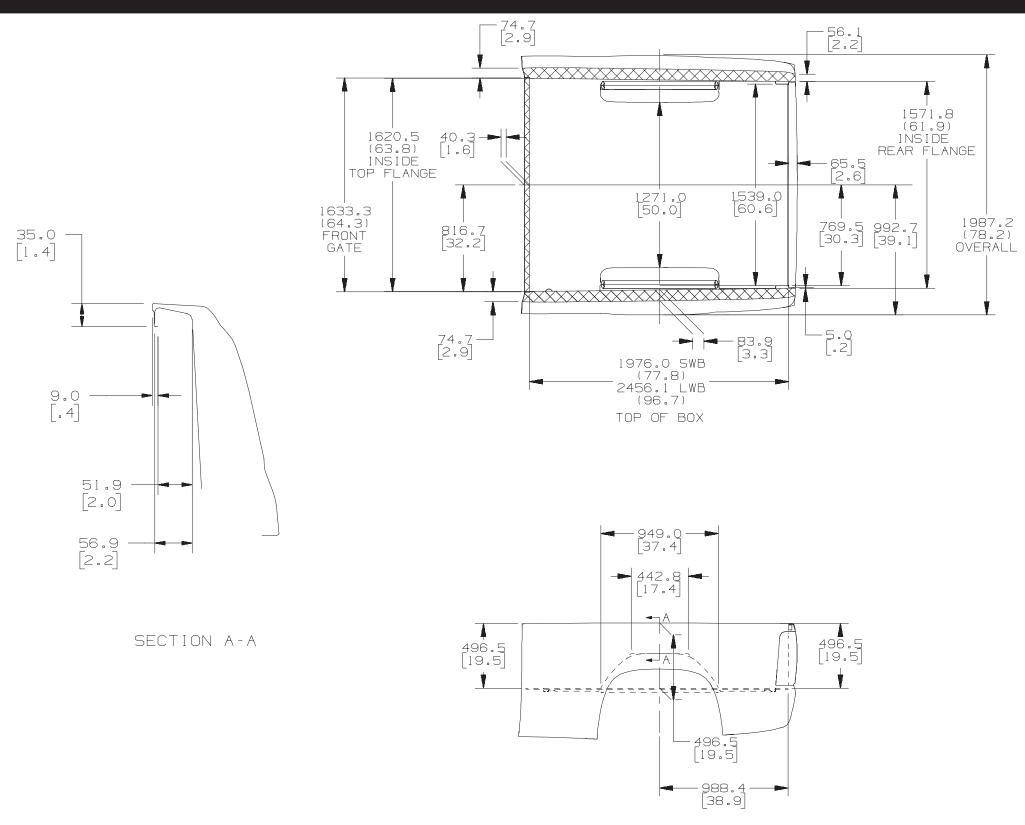
		Α	В	С		E	F	G	Н	J
C/K	6.5FT	2093.6 (82.4)	2037.6 (80.2)	508.3 (20.0)	369.6 (14.6)	1079.1	2595.3 (102.2)	2120.0 (83.5)	1975.1 (77.8)	2055.7
C/K	8.0FT	2574.2 (101.3)	2517.6 (99.6)	632.7 (24.9)	724.6 (28.5)	1437.5 (56.6)	3075.0 (121.1)	2600.0 (102.4)	2455.1 (96.7)	2544.2 (100.2)



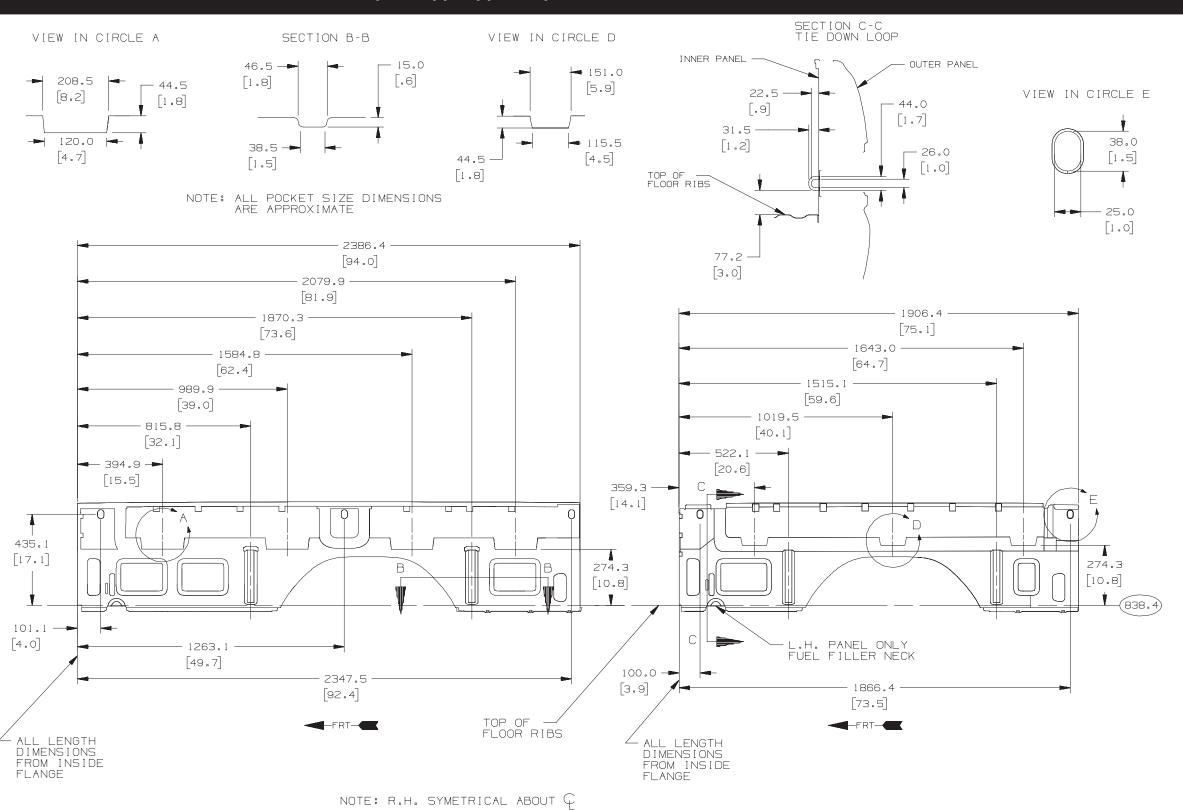
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C/K TRUCK (NEW)

C/K (15/25)(7/9)(03/53) Fleetside, Top Rail



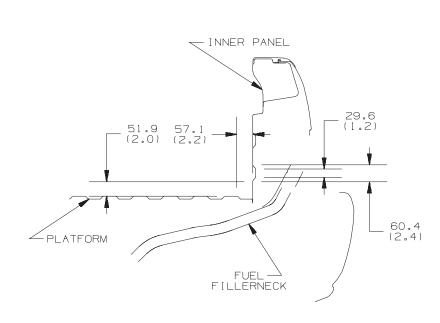
C/K (15/25)(7/9)(03/53) Fleetside, Inner Side Panel



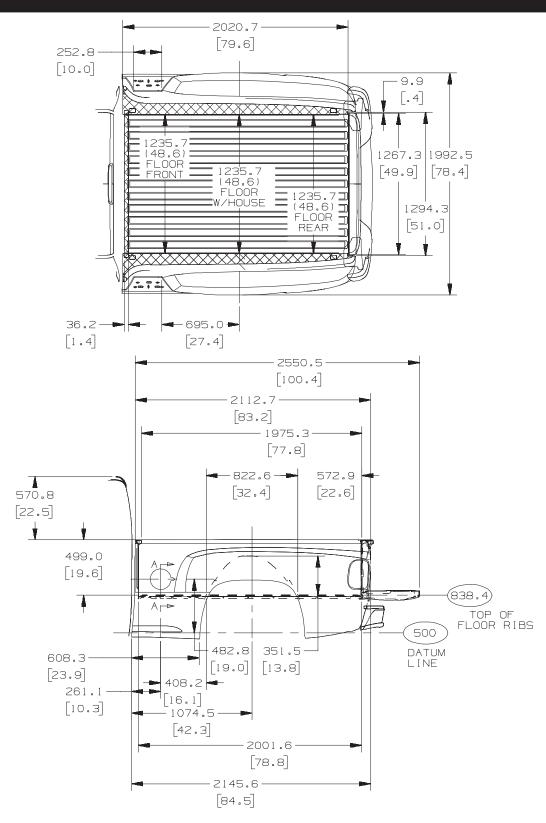
PAGE

C/K TRUCK (NEW)

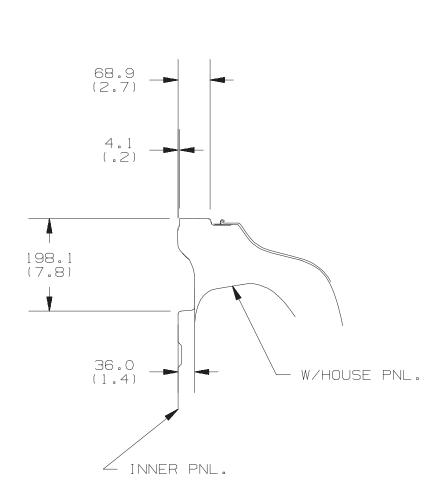
C/K 157(03/53) Sportside



SECTION A-A

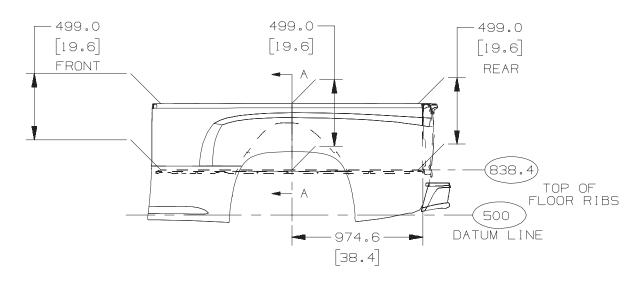


C/K 157(03/53) Sportside, Top Rail



1974.6 [77.7] 183.7-— 979.4 — [7.2] [38.6] 10.0-TOP FLANGE FRONT [.4] 1248.4 1248.4 (49.1) (49.1) TOP FRONT & W/HOUSE 1248.3 1267.3 (49.1) [49.9] TOP REAR END GATE REAR TOP 624.2 [24.6] 44.0 [1.7] TOP 51.2 -94.3 [3.7] TOP FLANGE & W/HOUSE [2.0] FLANGE REAR

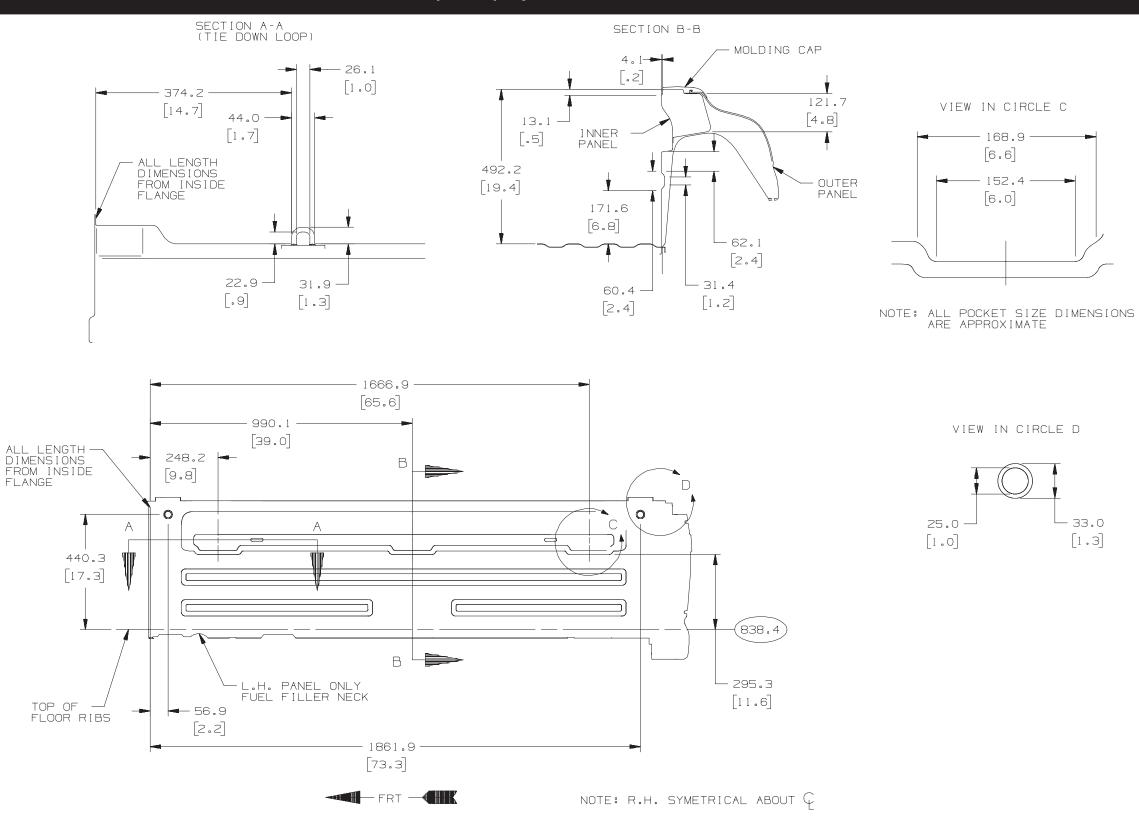
SECTION A-A



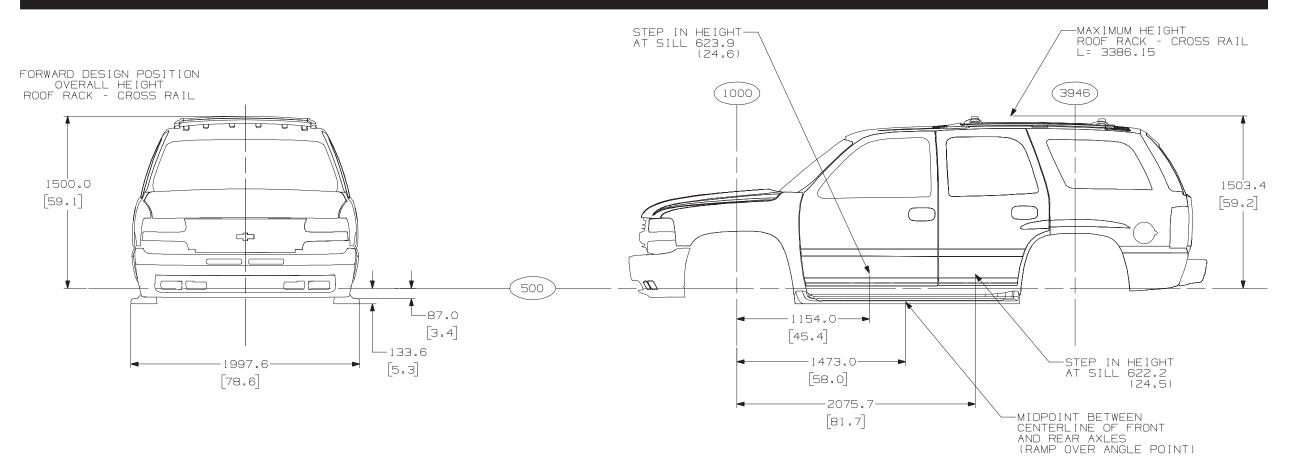
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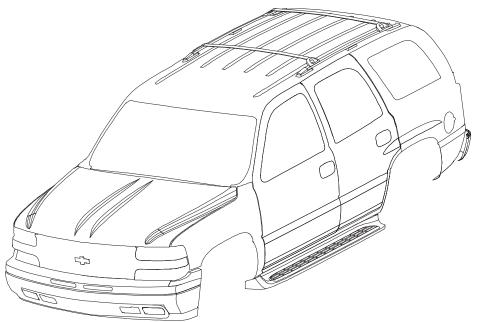
C/K TRUCK (NEW)

C/K 157(03/53) Sportside, Inner Side Panel



C/K 15706 – Luggage Rack & Runnhing Boards

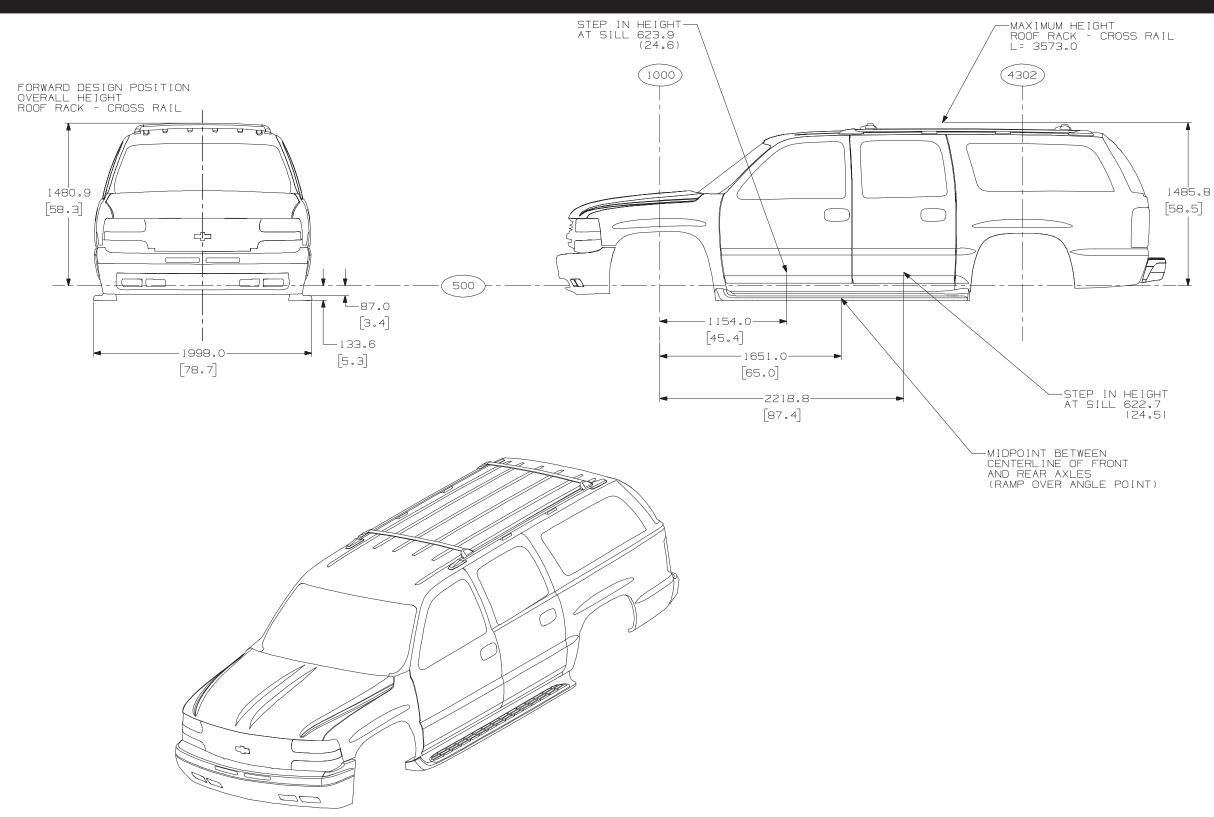




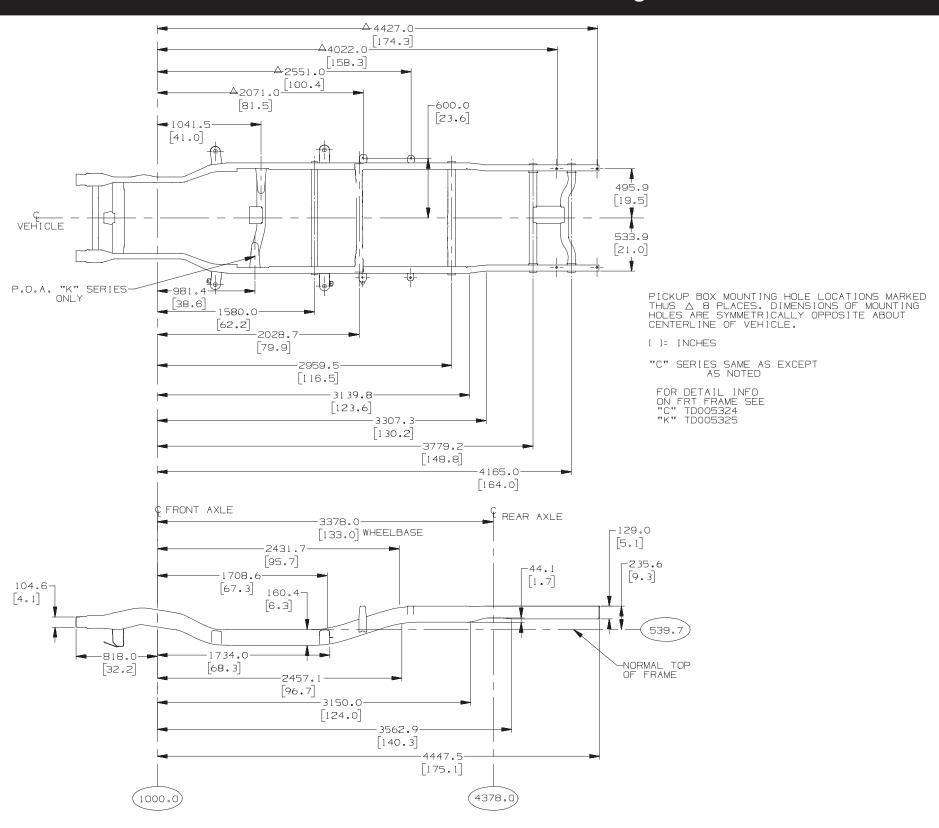
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C/K TRUCK (NEW)

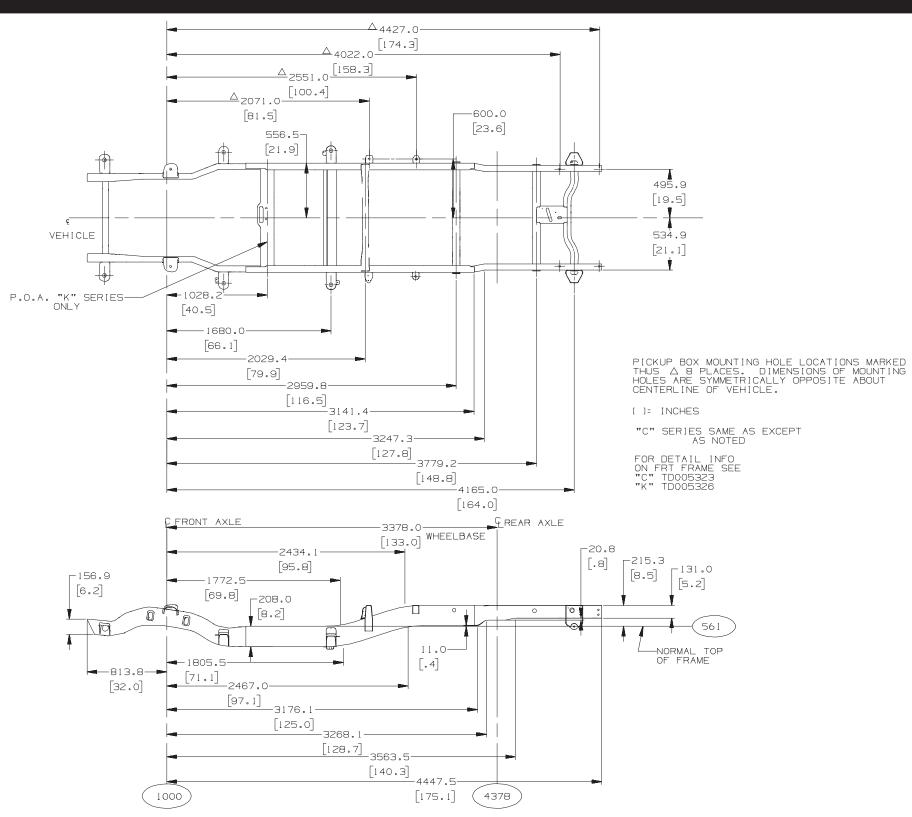
C/K (15/25) 906 – Luggage Rack & Running Boards



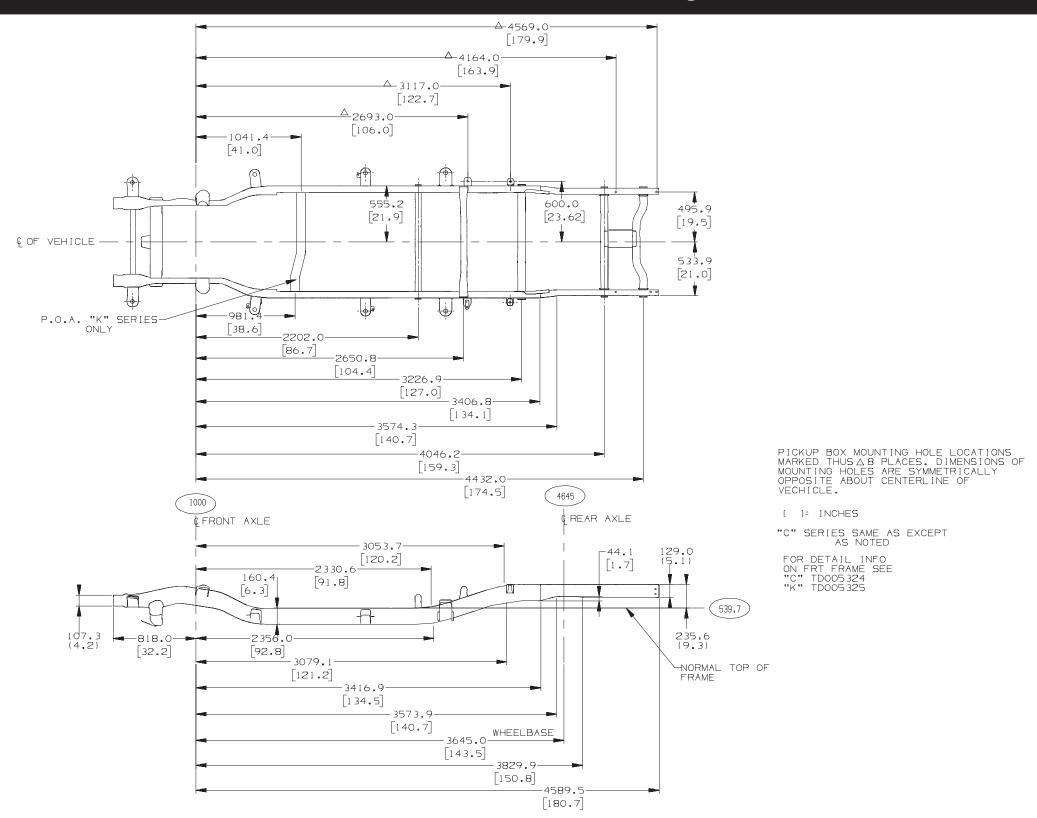
C/K 15903 Rail and Crossmember Arrangement



C/K 25903 Rail and Crossmember Arrangement

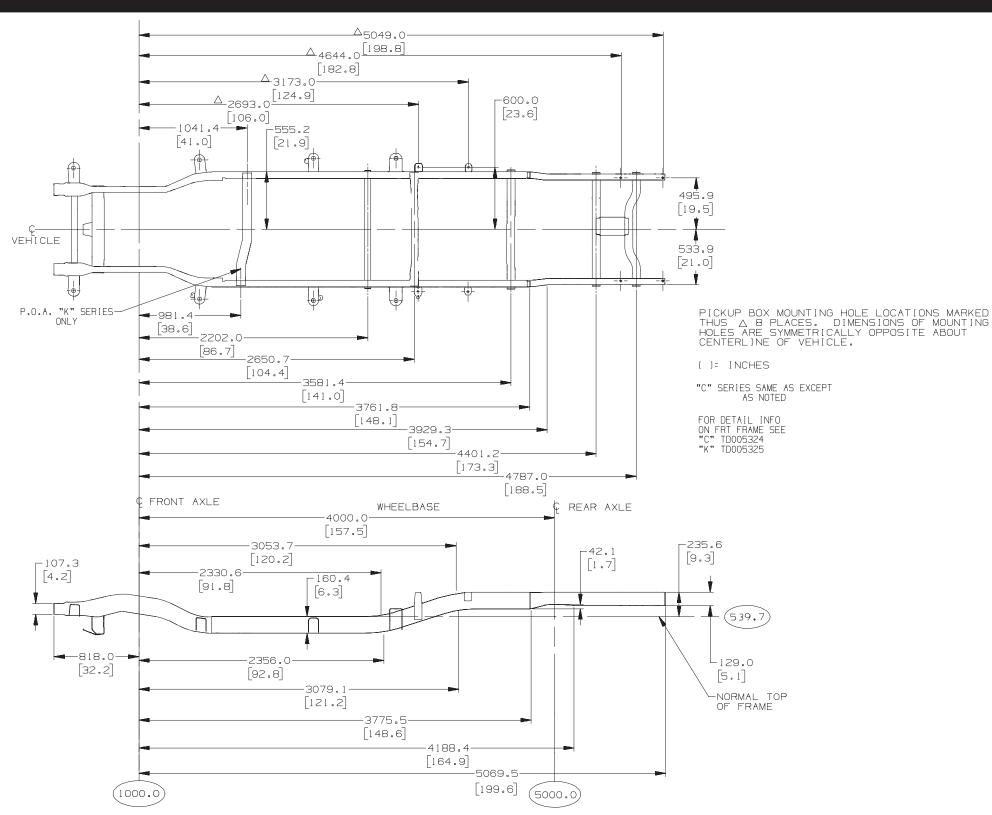


C/K 15753 Rail and Crossmember Arrangement

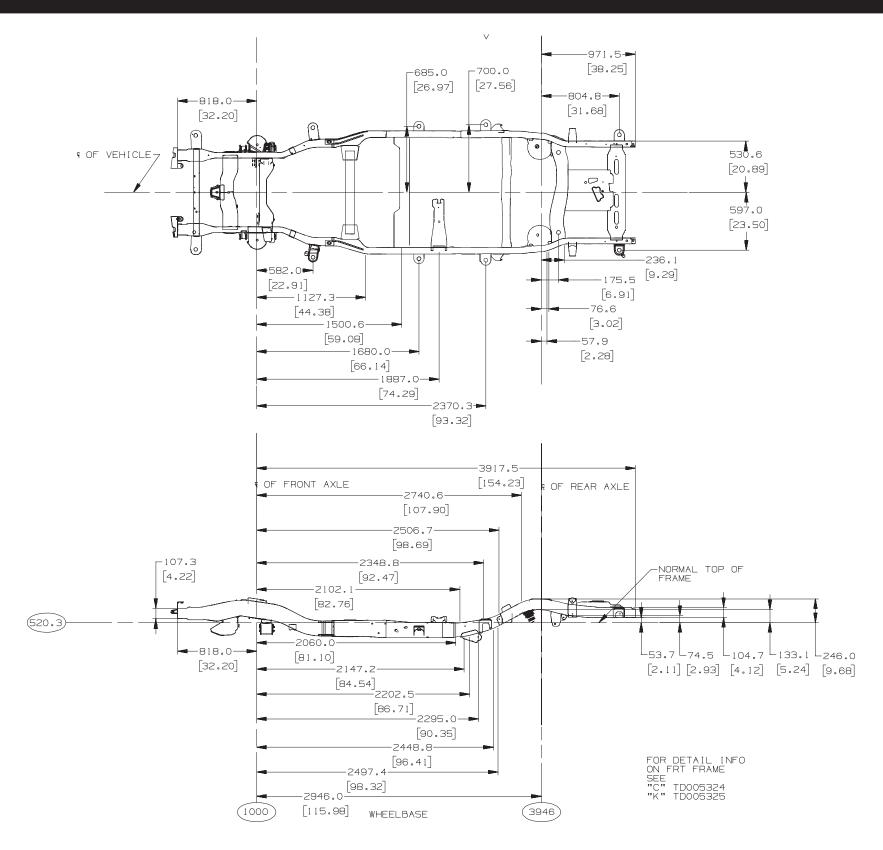


C/K TRUCK (NEW)

C/K 15953 Rail and Crossmember Arrangement

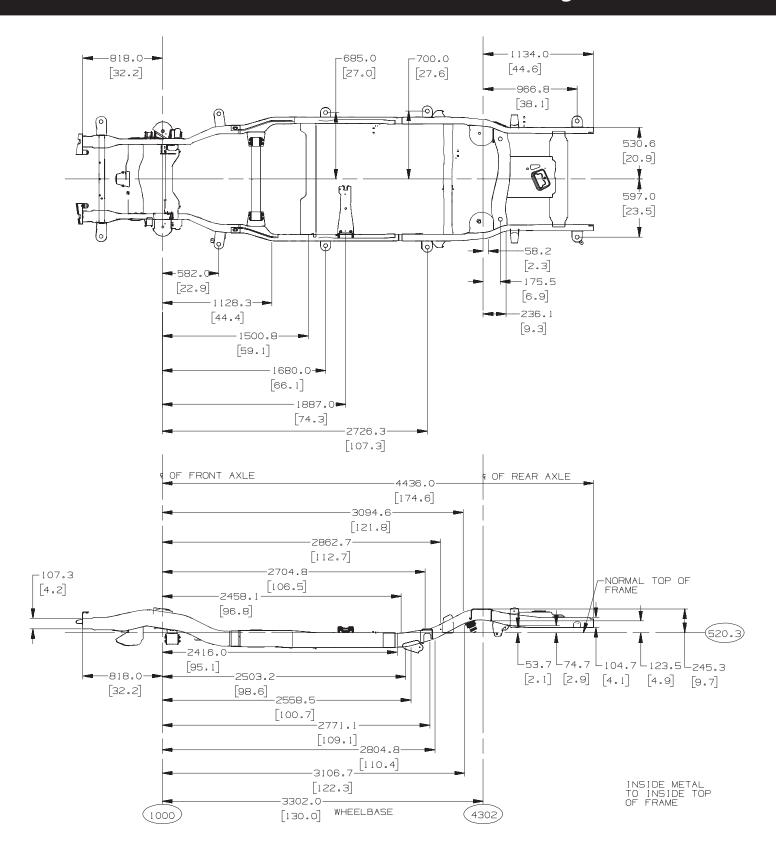


C/K 15706 – Rail and Crossmember Arrangement

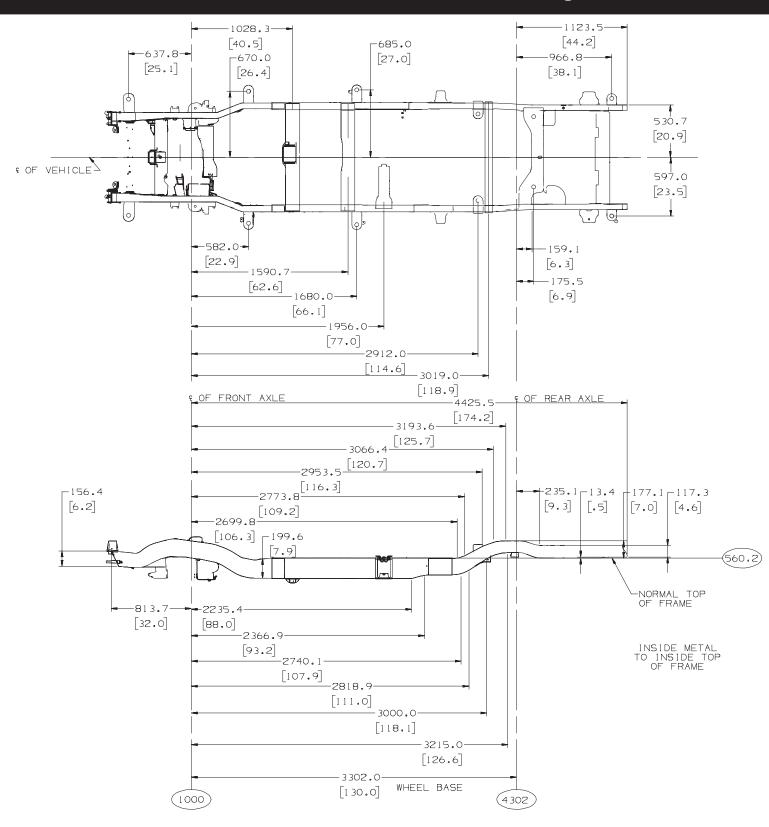


C/K TRUCK (NEW)

C/K 15906 – Rail and Crossmember Arrangement

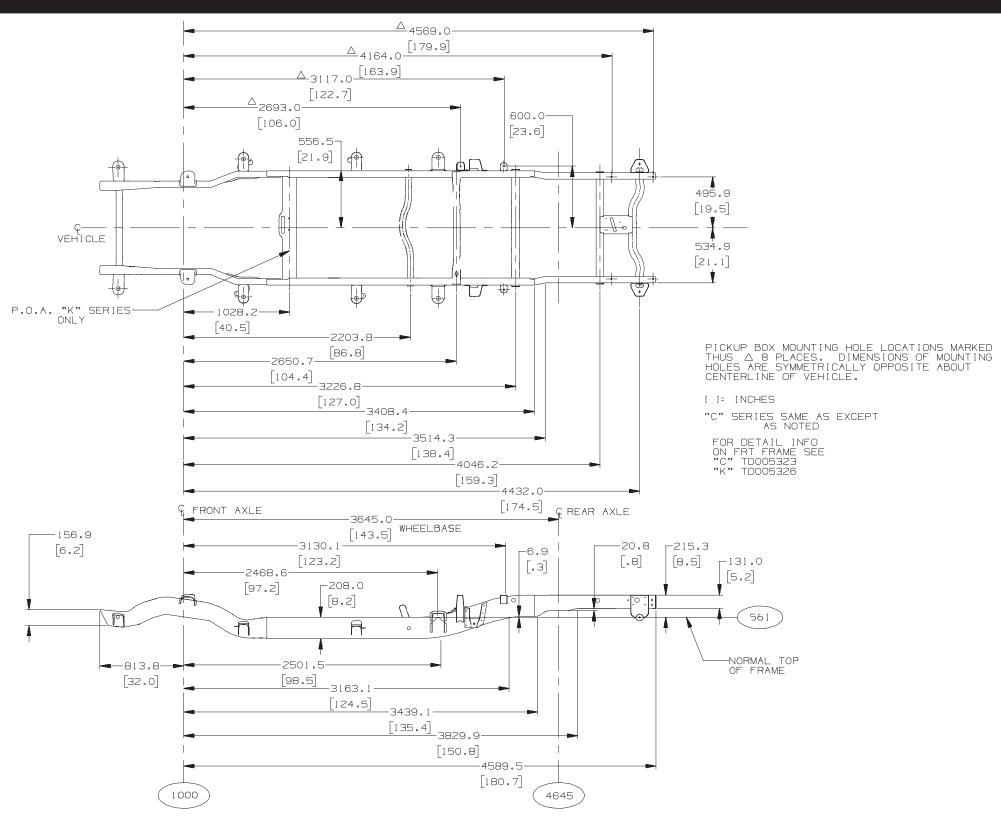


C/K 25906 – Rail and Crossmember Arrangement

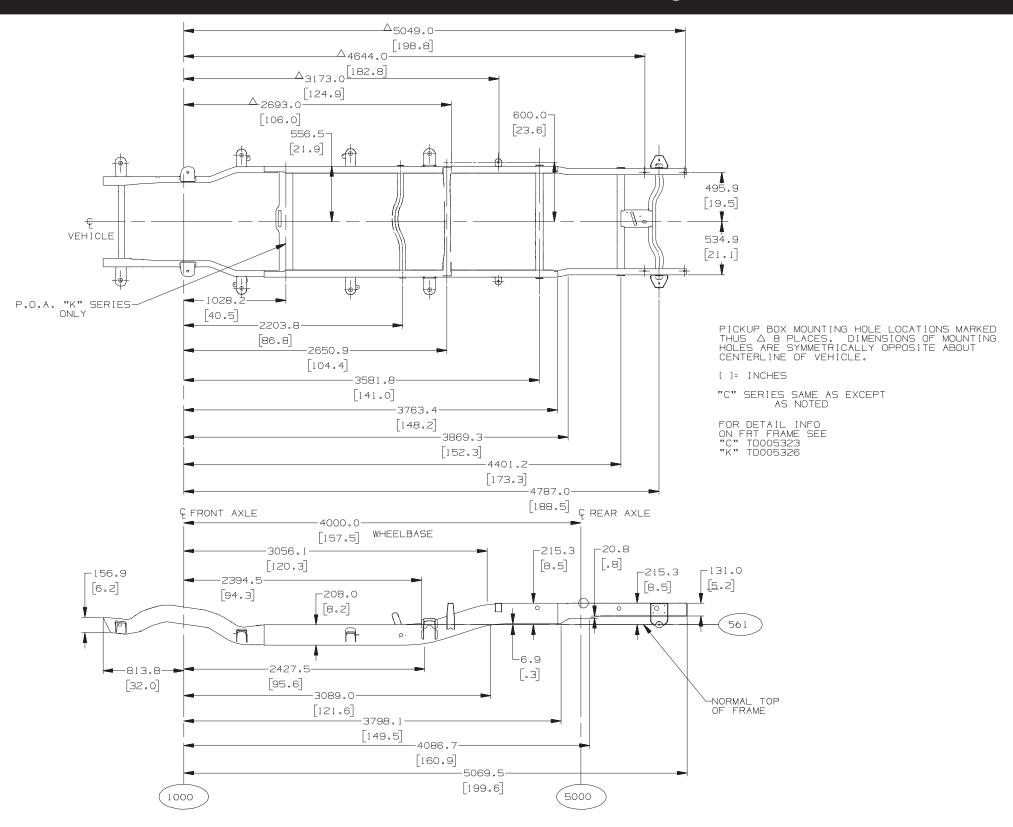


C/K TRUCK (NEW)

C/K 25753 Rail and Crossmember Arrangement

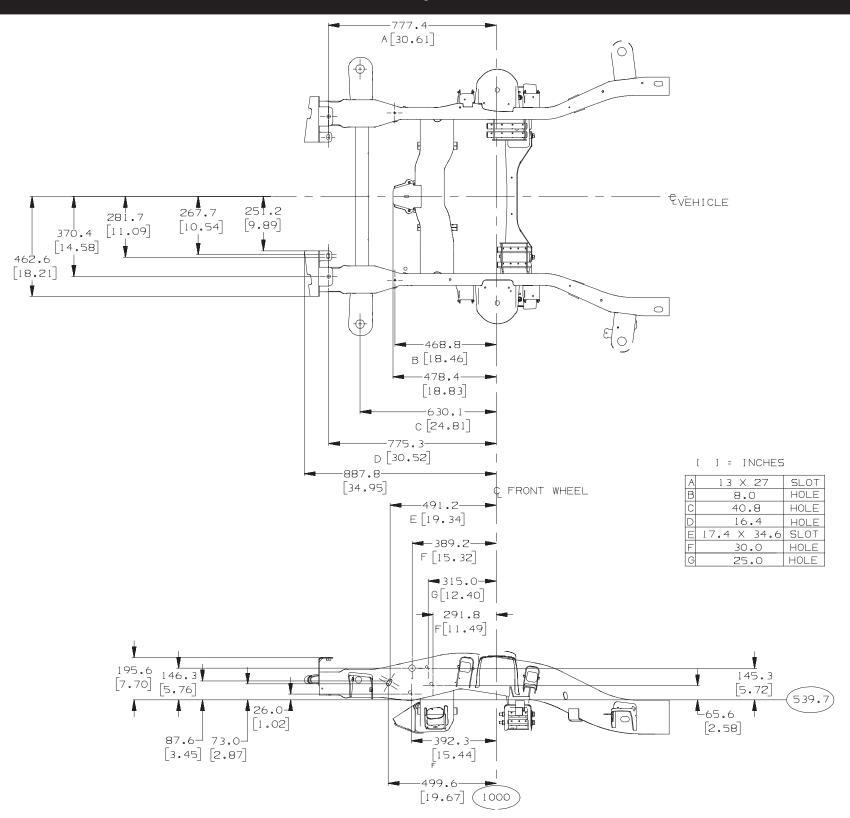


C/K 25953 Rail and Crossmember Arrangement

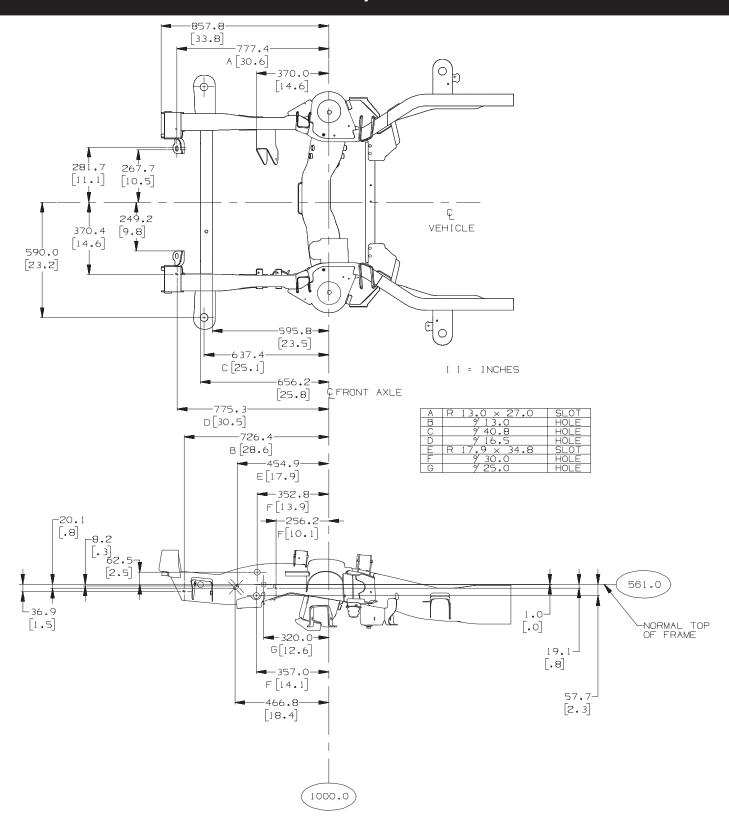


C/K TRUCK (NEW)

C 15000 Pickup Front Frame

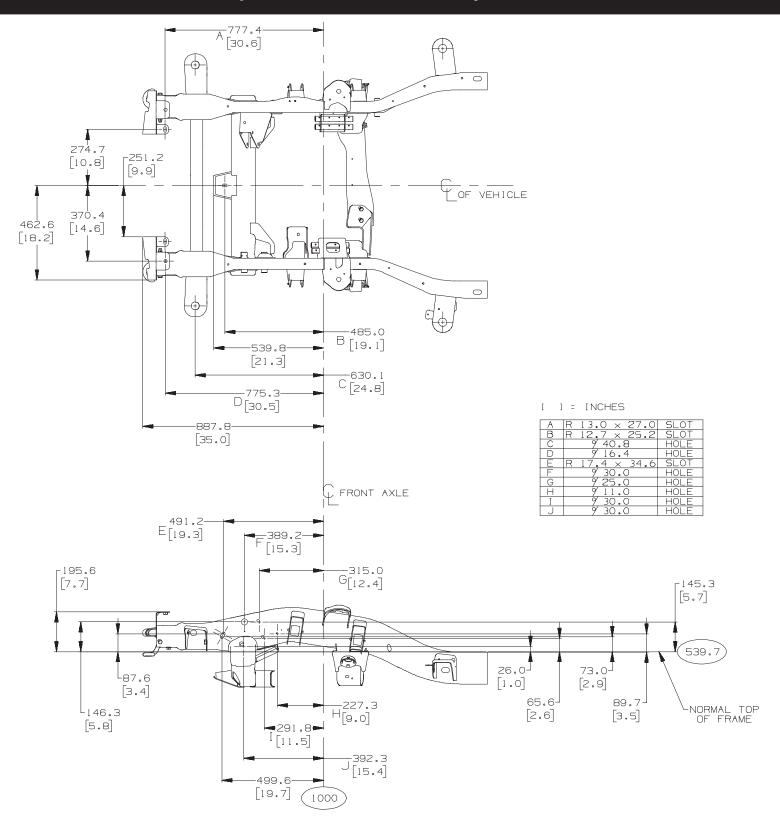


C 25000 Pickup Front Frame

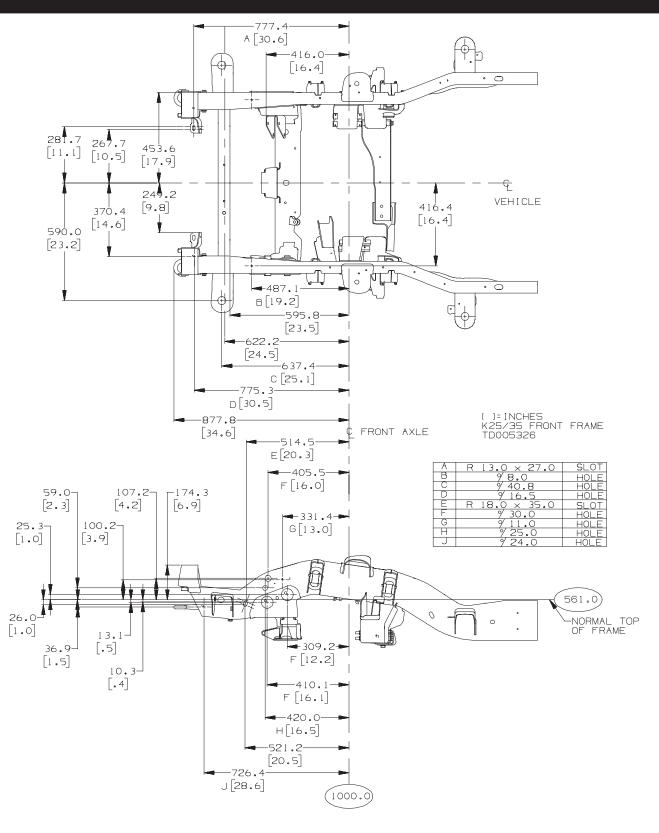


C/K TRUCK (NEW)

K Pickup 15000/CK 15000 Utility Front Frame

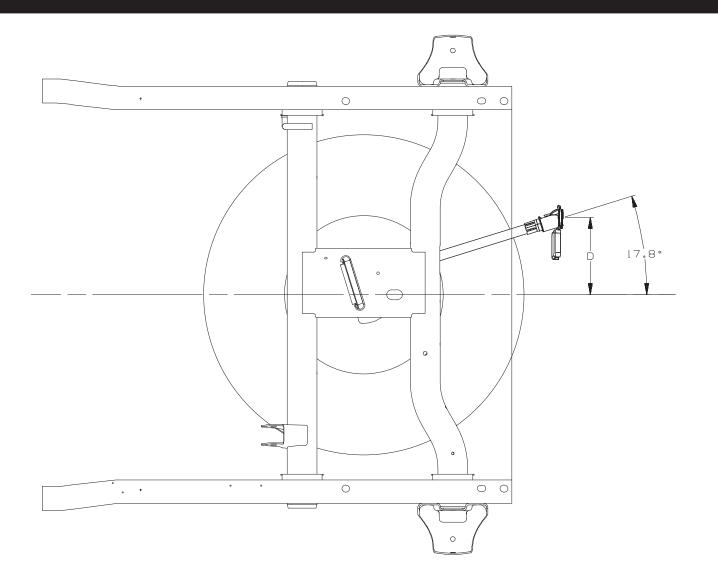


K 25000 Pickup/CK 25000 Utility Front Frame



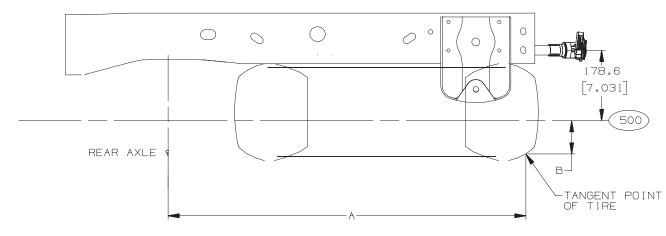
C/K TRUCK (NEW)

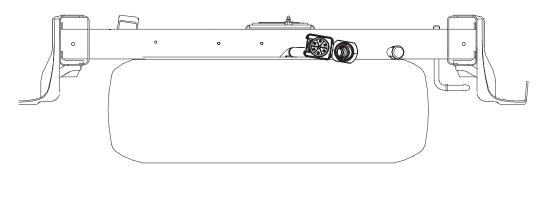
C/K (15/25)000 Spare Tire Carrier



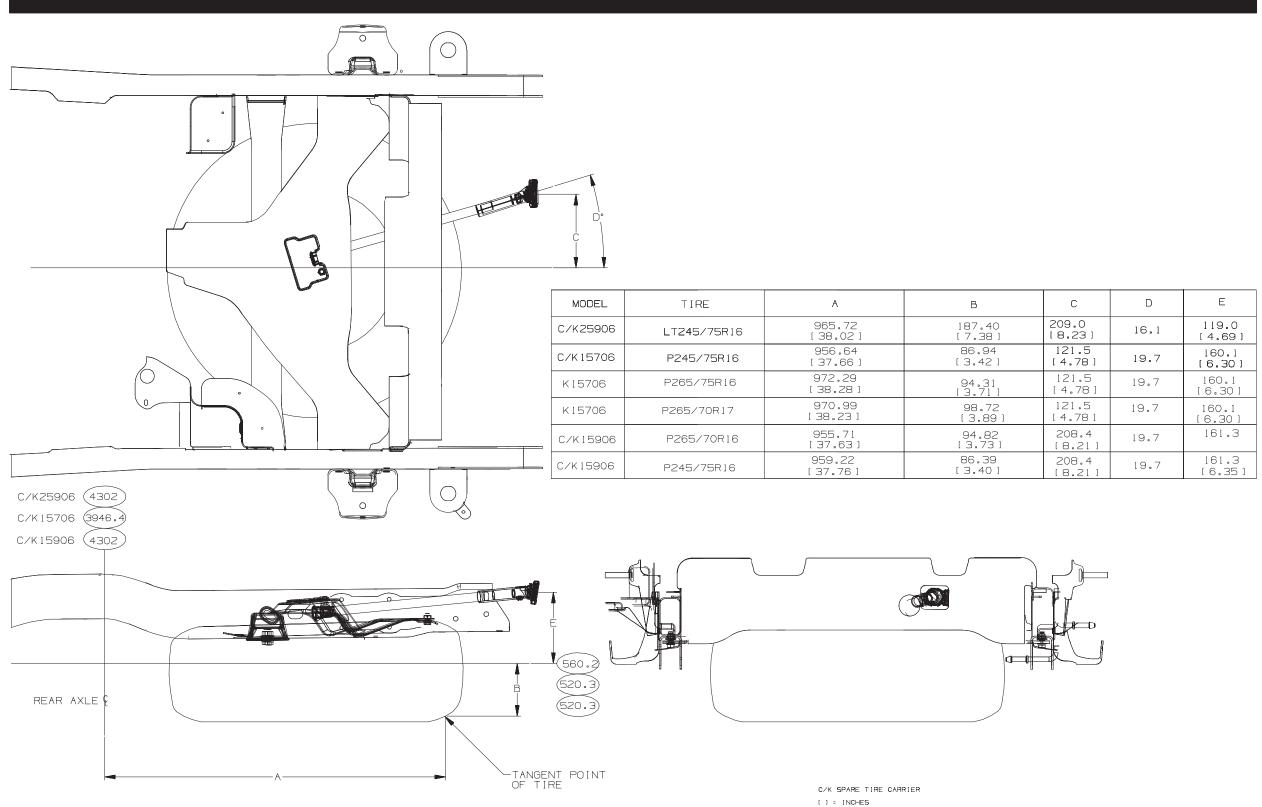
MODEL	TIRE	А	В
C/K25753	LT225/75R16	895.2 [35.24]	58.6 [2.31]
C/K15703	P235/75R16	877.7 [34.56]	80.5 [3.17]
C/K25903	LT245/75R16	906.1 [35.67]	67.1 [2.64]
C/K15953	P245/75R16	881.9 [34.72]	77.8 [3.06]

MODEL	D
703-753	209.3
903-953	204.1
TO HOLE IN BUMPER	209.08

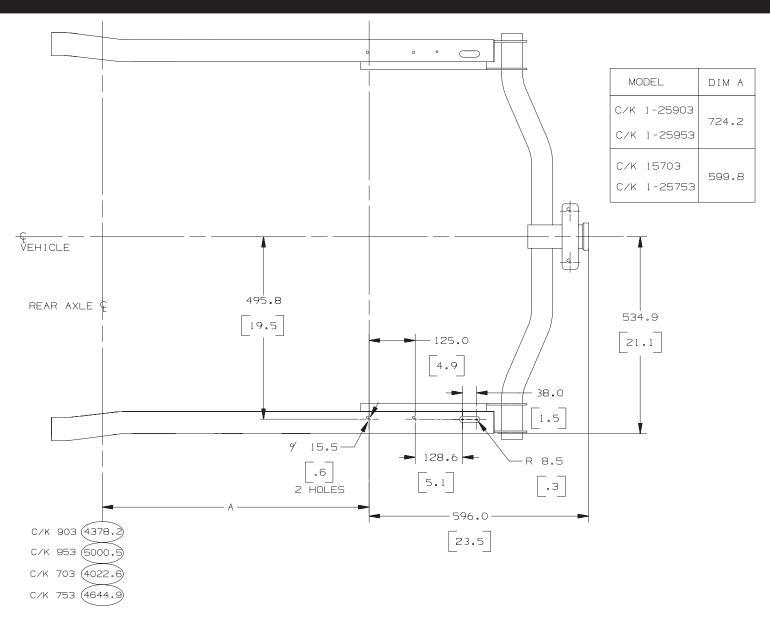




C/K (15/25) 000 Utility – Spare Tire Carrier

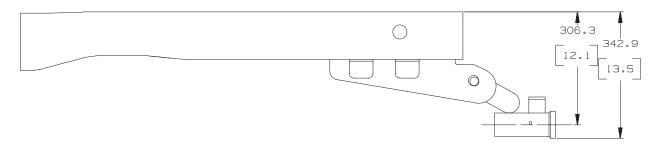


C/K (15/25)000 Pickup Platform Hitch Mounting

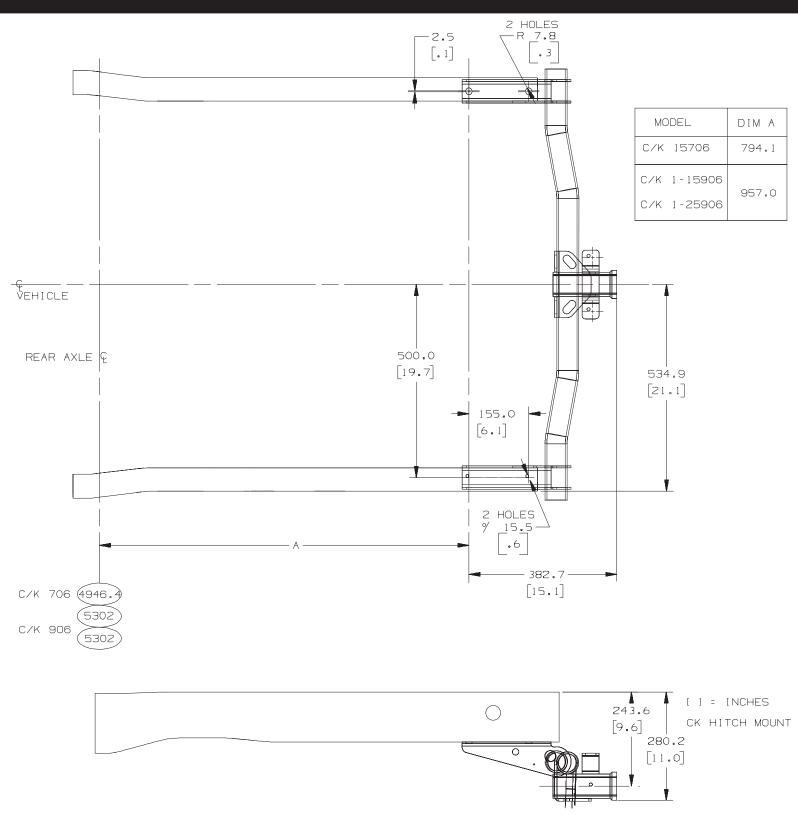


[] = INCHES

CK HITCH MOUNT

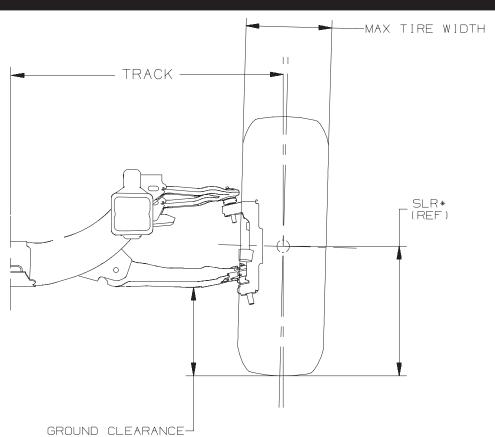


C/K (15/25)(7/9) 06 Utility – Platform Hitch Mounting



C/K TRUCK (NEW)

C (15/25)000 Front Axle/Tire Data, 2 Wheel Drive

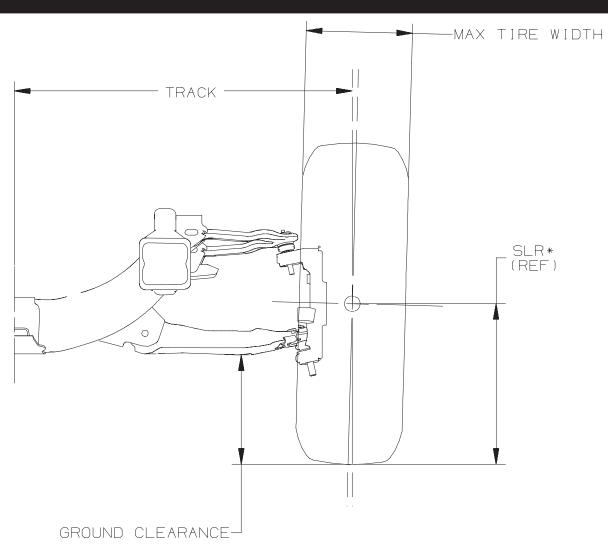


*MINIMUM GROUND CLEARANCE TO BE CALCULATED BY USING GROSS AXLE WEIGHT AND RECOMMENDED TIRE PRESSURE

() = INCHES TD005335

MODEL	TIRE	MAX GVW	REAR WHEEL	TRACK	WHEEL OFFSET	GROUND CLEARANCE	MAX TIRE WIDTH
C15703	P235/75R16	6100	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	252.0 (9.9)
	P255/70R16	6100	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	268.0 (10.6)
C15753	P235/75R16	6200	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	252.0 (9.9)
C1 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 -	P255/70R16	6200	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	268.0 (10.6)
C15903	P235/75R16	6400	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	252.0 (9.9)
C1 3903	P255/70R16	6400	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	268.0 (10.6)
C15953	P235/75R16	6200	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	252.0 (9.9)
013733	P255/70R16	6200	SINGLE	1651.0 (65.0)	31.0 (1.2)	202.8 (8.0)	268.0 (10.6)
C25753	LT225/75R16D	7200	SINGLE	1666.0 (65.6)	28.0 (1.1)	190.4 (7.5)	239.0 (9.4)
(2)/33	LT245/75R16E	7200	SINGLE	1666.0 (65.6)	28.0 (1.1)	202.4 (8.0)	256.0 (10.1)
	LT225/75R16D	7200	SINGLE	1666.0 (65.6)	28.0 (1.1)	190.4 (7.5)	239.0 (9.4)
C25903	LT245/75R16E	7200/8600	SINGLE	1666.0 (65.6)	28.0 (1.1)	202.4 (8.0)	256.0 (10.1)
005053	LT225/75R16D	7200	SINGLE	1666.0 (65.6)	28.0 (1.1)	190.4 (7.5)	239.0 (9.4)
C25953	LT245/75R16E	7200/8600	SINGLE	1666.0 (65.6)	28.0 (1.1)	202.4 (8.0)	256.0 (10.1)

C (15/25)(7/9) 06 – Front Axle/Tire Data 2 Wheel Drive



*MINIMUM GROUND CLEARANCE TO BE CALCULATED BY USING GROSS AXLE WEIGHT AND RECOMMENDED TIRE PRESSURE

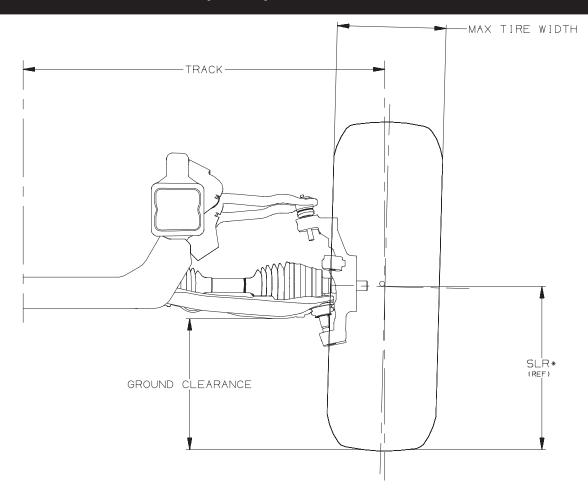
() = INCHES

#=FRT GROSS AXLE WEIGHT RATE

MODEL	TIRE	MAX GVW	REAR WHEEL	TRACK	WHEEL OFFSET	GROUND CLEARANCE	MAX TIRE Width
C15706	P245/75R16	6300	SINGLE	1651.0 (65.0)	31.0 (1.2)	207.8 (8.2)	261.0 (10.3)
	P265/70R16	6300	SINGLE	1651.0 (65.0)	31.0 (1.2)	208.8 (8.2)	276.0 (10.9)
C15906	P245/75R16	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	207.8 (8.2)	261.0 (10.3)
C1 J 700	P265/70R16	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	208.8 (8.2)	276.0 (10.9)
C25906	LT245/75R16E	8600	SINGLE	1666.0 (65.6)	28.0 (1.1)	202.4 (8.0)	256.0 (10.1)
023900	-	-	-	-	-	-	-

C/K TRUCK (NEW)

K (15/25)000 Front Axle/Tire Data, 4 Wheel Drive



TD005336

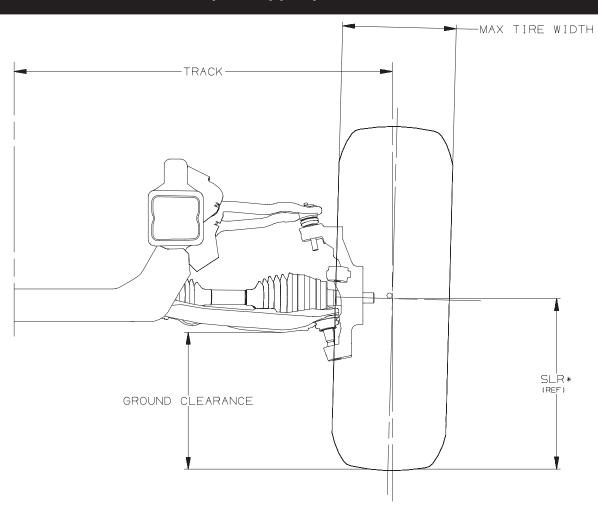
K15/25 FRONT AXLE/TIRE DATA CHART

*MINIMUM GROUND CLEARANCE TO BE Calculated by Using Gross axle Weight & recommended tire pressure

[]=[NCHES

MODEL	TIRE	MAX GVW	REAR WHEEL	TRACK	WHEEL OFFSET	GROUND CLEARANCE	MAX TIRE WIDTH
K15703	P245/75R16	6100	SINGLE	1651.0 165.01	31.0 [1.2]	214.7 [8.5]	261.0 [10.3]
	P265/75R16	6100	SINGLE	1651.0 165.01	31.0 [1.2]	227.7 [9.0]	276.0 [10.9]
	LT245/75R16C	6100	SINGLE	1651.0 165.01	31.0 [1.2]	229.7 [9.0]	256.0 [10.1]
K15753	P245/75R16	6400	SINGLE	1651.0 165.01	31.0 [1.2]	214.7 [8.5]	261.0 [10.3]
	P265/75R16	6400	SINGLE	1651.0 165.01	31.0 [1.2]	227.7 [9.0]	276.0 [10.9]
	LT245/75R16C	6400	SINGLE	1651.0 165.01	31.0 [1.2]	229.7 [9.0]	256.0 [10.1]
K15903	P245/75R16	6400	SINGLE	1651.0 165.01	31.0 [1.2]	214.7 [8.5]	261.0 [10.3]
	P265/75R16	6400	SINGLE	1651.0 165.01	31.0 [1.2]	227.7 [9.0]	276.0 [10.9]
	LT245/75R16C	6400	SINGLE	1651.0 165.01	31.0 [1.2]	229.7 [9.0]	256.0 [10.1]
K 1 5 9 5 3	P245/75R16	6400	SINGLE	1651.0 165.01	31.0 [1.2]	214.7 [8.5]	261.0 [10.3]
	P245/75R16	6400	SINGLE	1651.0 165.01	31.0 [1.2]	227.7 [9.0]	276.0 [10.9]
	LT245/75R16C	6400	SINGLE	1651.0 165.01	31.0 [1.2]	229.7 [9.0]	256.0 [10.1]
K25753	LT245/75R16C LT245/75R16C	7200 7200/8600	SINGLE SINGLE	1742.0 168.61 1742.0 168.61	28.0 [1.1]	198.2 [7.8] 210.2 [8.3]	239.0 [9.4] 256.0 [10.1]
K25903	LT245/75R16C	8600	SINGLE	1742.0 168.61	28.0 [1.1]	210.2 [8.3]	256.0 [10.1]
K25953	LT245/75R16C	8600	SINGLE	1742.0 168.61	28.0 [1.1]	210.2 [8.3]	256.0 [10.1]

K (15/25)(7/9) 06 – Front Axle/Tire Data 4 Wheel Drive



K15/25 FRONT AXLE/TIRE DATA CHART

*MINIMUM GROUND CLEARANCE TO BE CALCULATED BY USING GROSS AXLE WEIGHT & RECOMMENDED TIRE PRESSURE

[]=[NCHES

MODEL	TIRE	MAX GVW	REAR WHEEL	TRACK	WHEEL OFFSET	GROUND CLEARANCE	MAX TIRE WIDTH
	P245/75R16	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	214.7 (8.5)	261.0 (10.3)
	P265/75R16	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	227.7 (9.0)	276.0 (10.9)
K15706	P265/70R16	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	215.7 (8.5)	276.0 (10.9)
K13700	LT245/75R16C	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	229.7 (9.0)	256.0 (10.0)
	LT265/75R16	6800	SINGLE	1651.0 (65.0)	31.0 (1.2)	237.7 (9.4)	276.0 (10.9)
	-	_	-	-	-	-	-
	P245/75R16	7200	SINGLE	1651.0 (65.0)	31.0 (1.2)	214.7 (8.5)	261.0 (10.3)
K15906	P265/75R16	7200	SINGLE	1651.0 (65.0)	31.0 (1.2)	227.7 (9.0)	276.0 (10.9)
N 1 3 9 0 0	P265/70R16	7200	SINGLE	1651.0 (65.0)	31.0 (1.2)	215.7 (8.5)	276.0 (10.9)
	-	_	-	-	-	-	-
K25906	LT245/75R16E	8600	SINGLE	1742.0 (68.6)	28.0 (1.1)	210.2 (8.3)	256.0 (10.0)
N23900	-	_	-	-	-	-	-

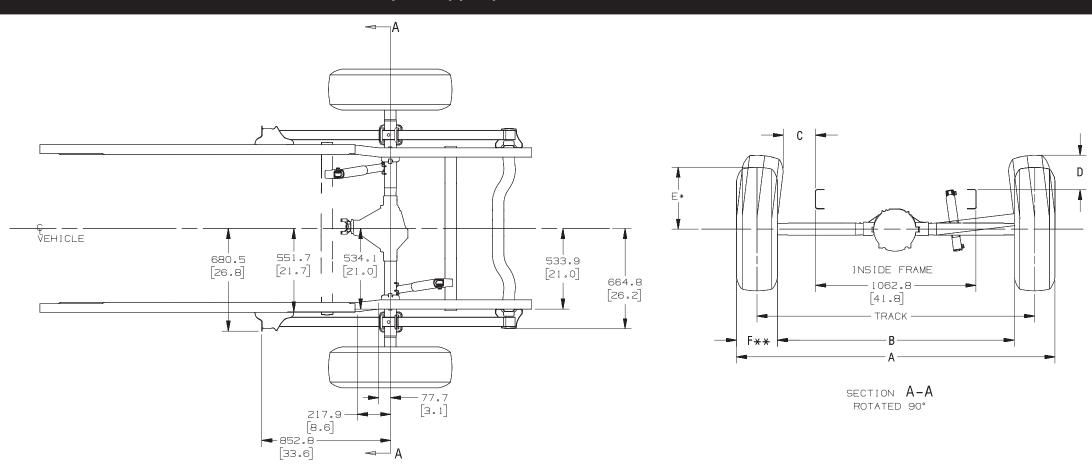
C/K TRUCK (NEW)

C/K (15/25)000 Rear Axle/Tire Data С **VEHICLE** 534.1 680.5 533.9 [21.0] INSIDE FRAME [26.8] [21.0] 664.8 1062.8 [26.2] 41.8 TRACK SECTION A-A -77.7 ROTATED 90° [3.1] 217.9-[8.6] [] = INCHES SINGLE WHEELS A = TRACK + F B = TRACK - F **-**852.8 * MAX GROWN TIRE RADIUS ON NARROWEST RIM [33.6] TIRE CHAINS NOT INCLUDED ** MAX GROWN TIRE WIDTH ON WIDEST RIM DIM F ** DIM E* SERIES REAR WHEEL TRACK WHEEL OFFSET DIM A DIM B DIM D TIRES GVW RANGE DIM C 385.0[15.2] 252.0 [9.9] 31.0 236.3 [9.3] P235/75R16 1676.4 [66.0] [1.2] 1928.4[75.9] 1424.4 [56.1] 149.8 [5.9] 6100/6400 SINGLE C1500 388.0 [15.3] 268.0 [10.6 141.7 [5.6 P255/70R16 6100/6400 SINGLE 1676.4 [66.0 31.0 [1.2] 944.4[76.6 1408.4 [55.5 239.4 [9.4] 396.0 [15.6] [10.3 [8.1] 261.0 1676.4 31.0 [1.2] 1937.4[76.3 1415.4 [55.7 144.7 [5.7] 205.2 T245/75R16 6100/6400 SINGLE [66.0] 147.3 [5.8 395.0 [15.6] 261.0 [10.3 [66.0] 31.0 [1.2] 1937.4[76.3 1415.4 [55.7 204.1 [8.0 P245/75R16 6100/6400 1676.4 SINGLE K1500 410.0 [16.1] 1676.4 [66.0] 31.0 [1.2] 1952.4[76.9 1400.4 [55.1 136.4 [5.4] 219.2 [8.6 276.0 [10.9 6100/6400 P265/75R16 SINGLE [7.5 381.0[15.0] 190.1 239.0 [9.4] 1915.4[75.4] 1437.4 [56.6 155.9 [6.1 _T225/75R16 SINGLE 1676.4 [66.0] 28.0 [] .] 7200 256.0 [10.1 1932.4[76.1 SINGLE 1676.4 [66.0] 28.0 [1.1] 1420.4 [55.9 146.6 [5.8 202.9 [8.0 396.0 [15.6] C2500 LT245/75R16 7200 1932.4[76.1 [1 . 1] SINGLE [66.0] 28.0 202.9 [8.0] 396.0 [15.6] 256.0 [10.1 T245/75R16 8600 1420.4 [55.9 146.6 [5.8 1915.4[75.4] 190.1 [7.5] 381.0[15.0] 1437.4 [56.6 239.0 T225/75R16 7200 SINGLE 1676.4 [66.0] 28.0 155.9 [6.1 [9.4] 146.6 [5.8 396.0 [15.6] 256.0 [10.1 [1.1] 1932.4[76.1] [8.0] K2500 LT245/75R16 7200 SINGLE 1676.4 [66.0] 28.0 1420.4 [55.9 202.9 256.0 [10.1] 1676.4 [66.0] 28.0 1932.4[76.1] 1420.4 [55.9] 396.0 [15.6] _T245/75R16 | 8600 SINGLE 146.6 [5.8] 202.9 [8.0]

C15 & 25 REAR TIRE DATA CHART TD005337

C/K TRUCK (NEW)

C/K (15/25)(7/9) 06 – Rear Axle/Tire Data



[] = INCHES * MAX GROWN TIRE RADIUS ON NARROWEST RIM ** MAX GROWN TIRE WIDTH ON WIDEST RIM

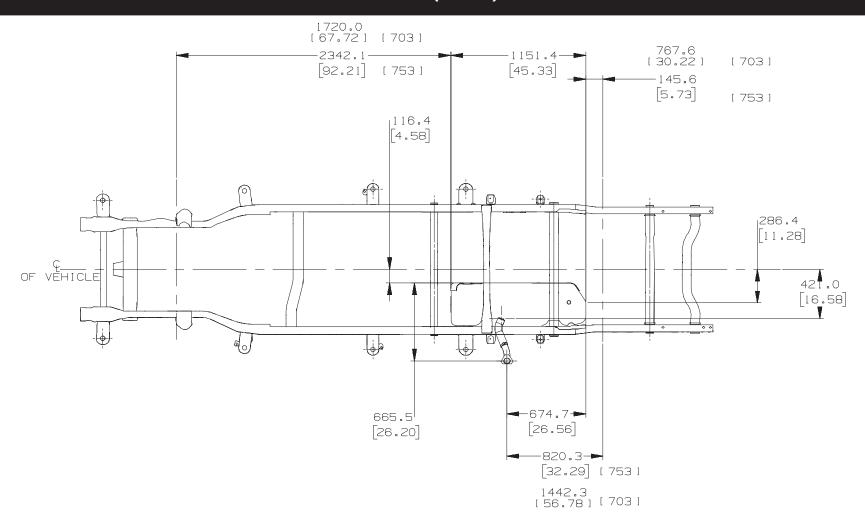
SINGLE WHEELS A = TRACK + F TIRE CHAINS NOT INCLUDED B = TRACK - F

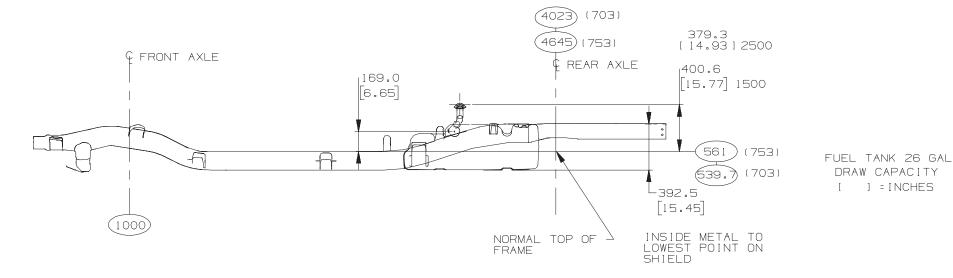
SERIES	TIRES	GVW RANGE	REAR WHEEL	TRACK	WHEEL	OFFSET	DIM A	DIM B	DIM C	DIM D	DIM E*	DIMF	**
C1500	P235/75R16	6100/6400	SINGLE	1676.4 [66.0]	31.0	[1.2]	1928.4[75.9]	1424.4 [56.1]	149.8 [5.9]	236.3 [9.3]	385.0[15.2]	252.0	[9.9]
11500	P255/70R16	6100/6400	SINGLE	1676.4 [66.0]	31.0	[1.2]	1944.4[76.6]	1408.4 [55.5]	141.7 [5.6]	239.4 [9.4]	388.0 [15.3]	268.0	[10.6]
	LT245/75R16	6100/6400	SINGLE	1676.4 [66.0]	31.0	[1.2]	1937.4[76.3]	1415.4 [55.7]	144.7 [5.7]	205.2 [8.1]	396.0 [15.6]	261.0	[10.3]
K1500	P245/75R16	6100/6400	SINGLE	1676.4 [66.0]	31.0	[1.2]	1937.4[76.3]	1415.4 [55.7]	147.3 [5.8]	204.1 [8.0]	395.0 [15.6]	261.0	[10.3]
K 1500		6100/6400	SINGLE	1676.4 [66.0]	31.0	[1.2]	1952.4[76.9]	1400.4 [55.1]	136.4 [5.4]	219.2 [8.6]	410.0 [16.1]	276.0	[10.9]
	LT225/75R16	7200	SINGLE	1676.4 [66.0]	28.0	[1.1]	1915.4[75.4]	1437.4 [56.6]	155.9 [6.1]	190.1 [7.5]	381.0 [15.0]	239.0	[9.4]
C2500	LT245/75R16	7200	SINGLE	1676.4 [66.0]	28.0	[1.1]	1932.4[76.1]	1420.4 [55.9]	146.6 [5.8]	202.9 [8.0]	396.0 [15.6]	256.0	[10.1]
	LT245/75R16	8600	SINGLE	1676.4 [66.0]	28.0	[1.1]	1932.4[76.]]	1420.4 [55.9]	146.6 [5.8]	202.9 [8.0]	396.0 [15.6]	256.0	[10.1]
	LT225/75R16	7200	SINGLE	1676.4 [66.0]	28.0	[1.1]	1915.4[75.4]	1437.4 [56.6]	155.9 [6.1]	190.1 [7.5]	381.0[15.0]	239.0	[9.4]
K2500	LT245/75R16	7200	SINGLE	1676.4 [66.0]	28.0	[1.1]	1932.4[76.]]	1420.4 [55.9]	146.6 [5.8]	202.9 [8.0]	396.0[15.6]	256.0	[10.1]
	LT245/75R16	8600	SINGLE	1676.4 [66.0]	28.0	[1 . 1]	1932.4[76.1]	1420.4 [55.9]	146.6 [5.8]	202.9 [8.0]	396.0 [15.6]	256.0	[10.1]

C15 & 25 REAR TIRE DATA CHART

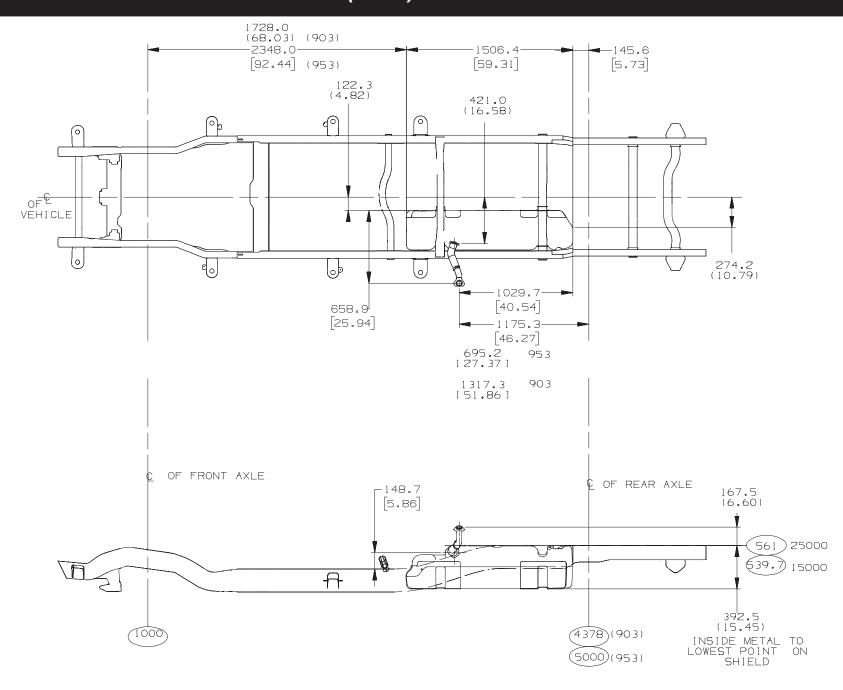
C/K TRUCK (NEW)

CK 157/257 (03/53) 26 Gallon Fuel Tank





CK 159/259 (03/53) 34 Gallon Fuel Tank

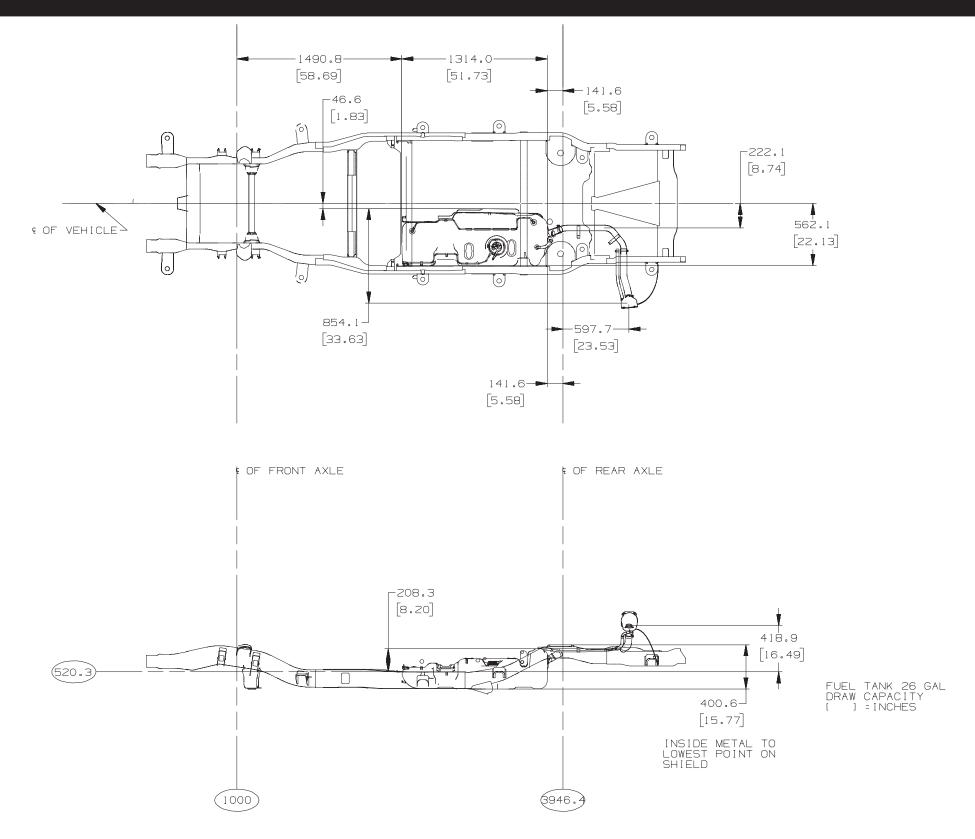


() = INCHES UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE TO INSIDE OF METAL

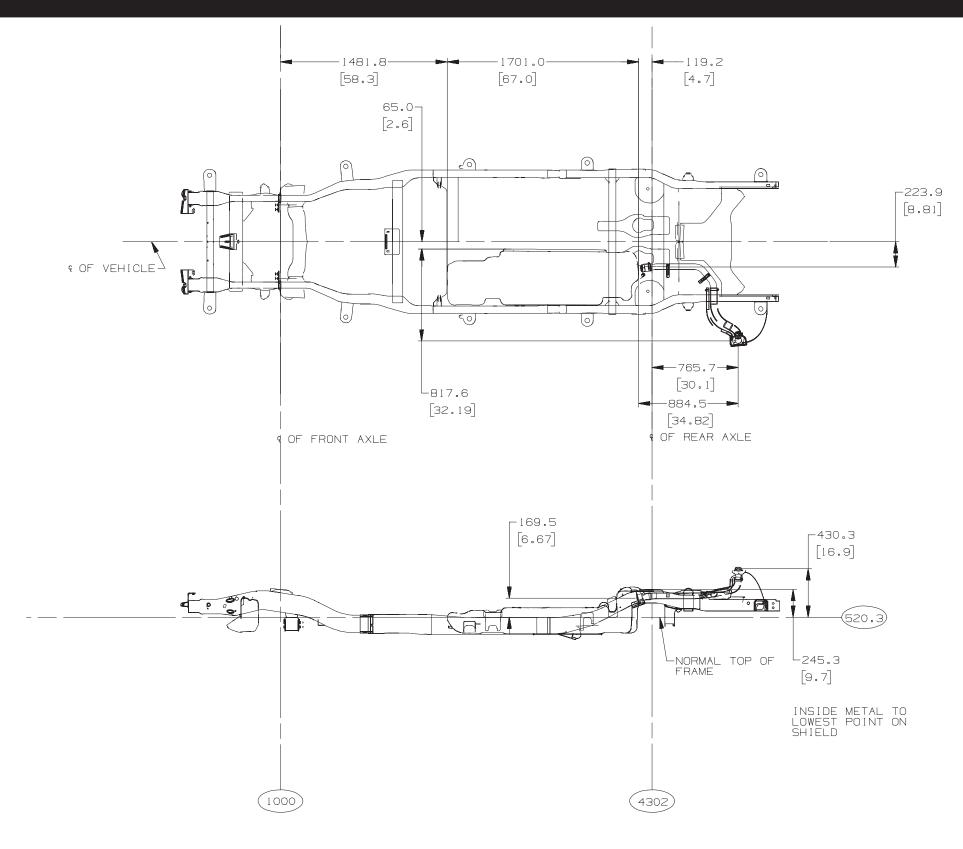
FUEL TANK (34 GAL)

C/K TRUCK (NEW)

C/K 15706 26 Gallon Fuel Tank

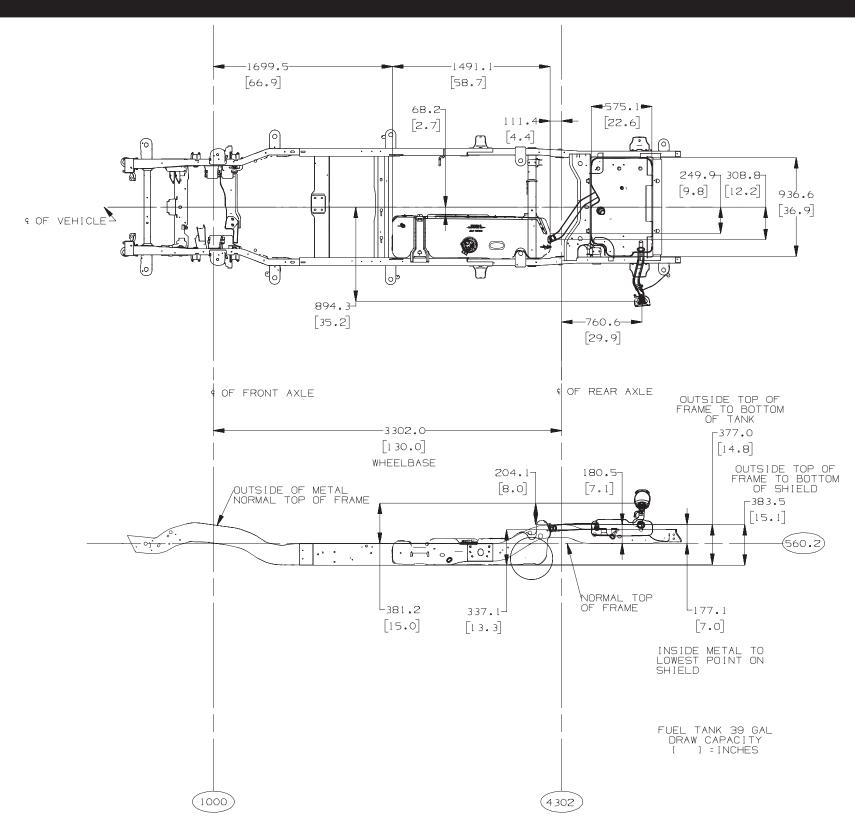


C/K 15906 33 Gallon Fuel Tank

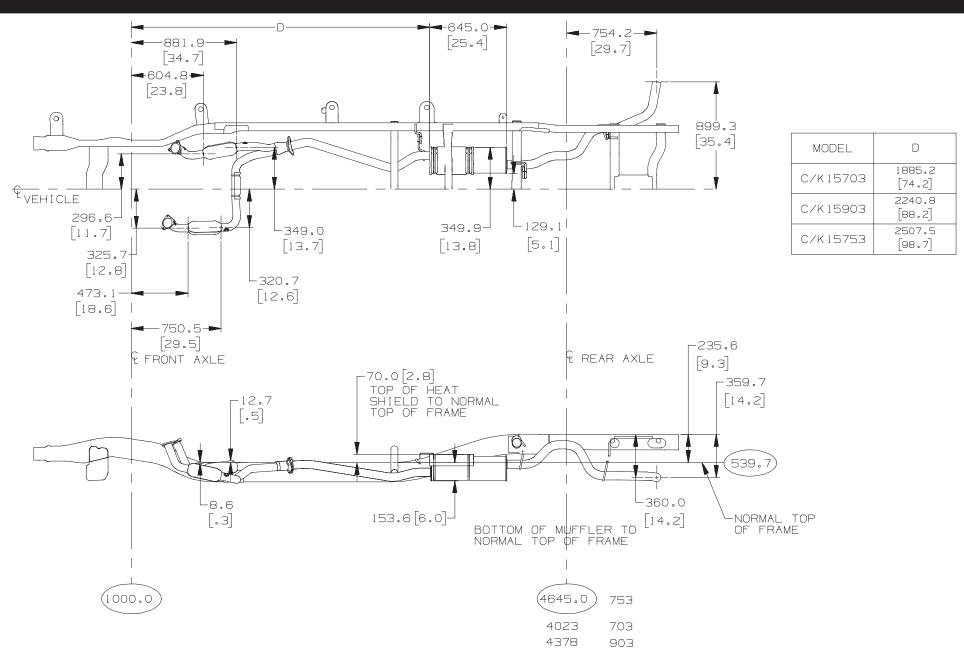


C/K TRUCK (NEW)

C/K 25906 36 Gallon Fuel Tank



4.3L Gas Engine, Option L35



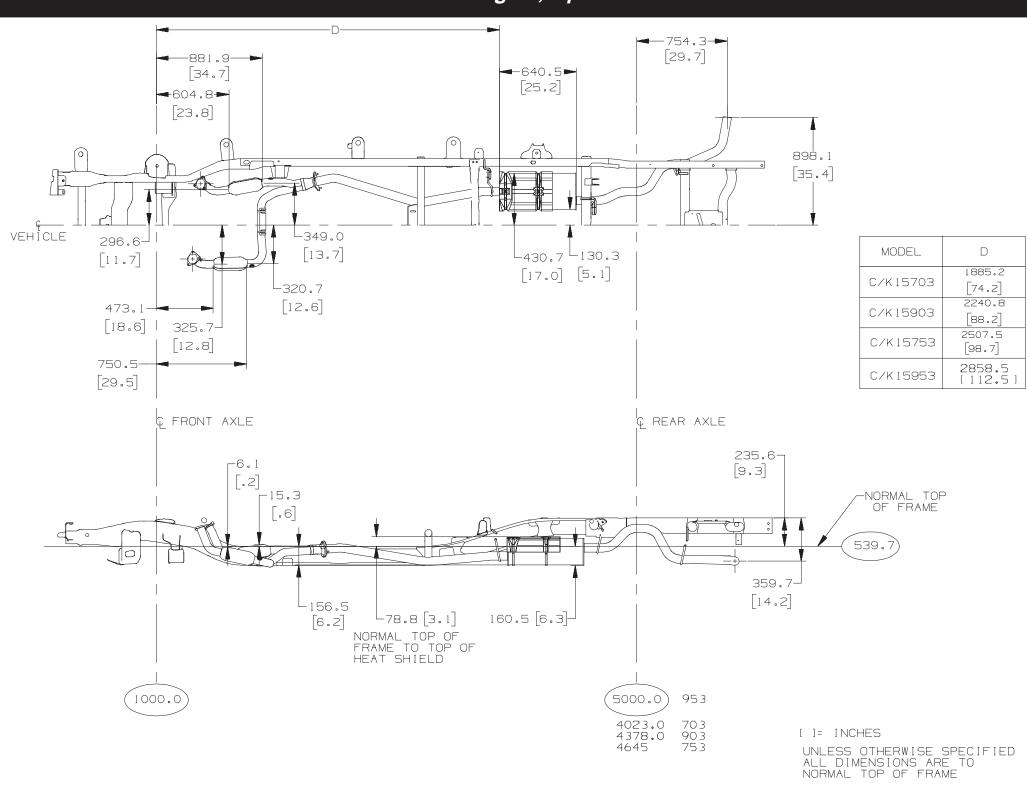
[] = INCHES

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE TO NORMAL TOP OF FRAME

EXHAUST, OPTION L35 4.3L GAS ENGINE

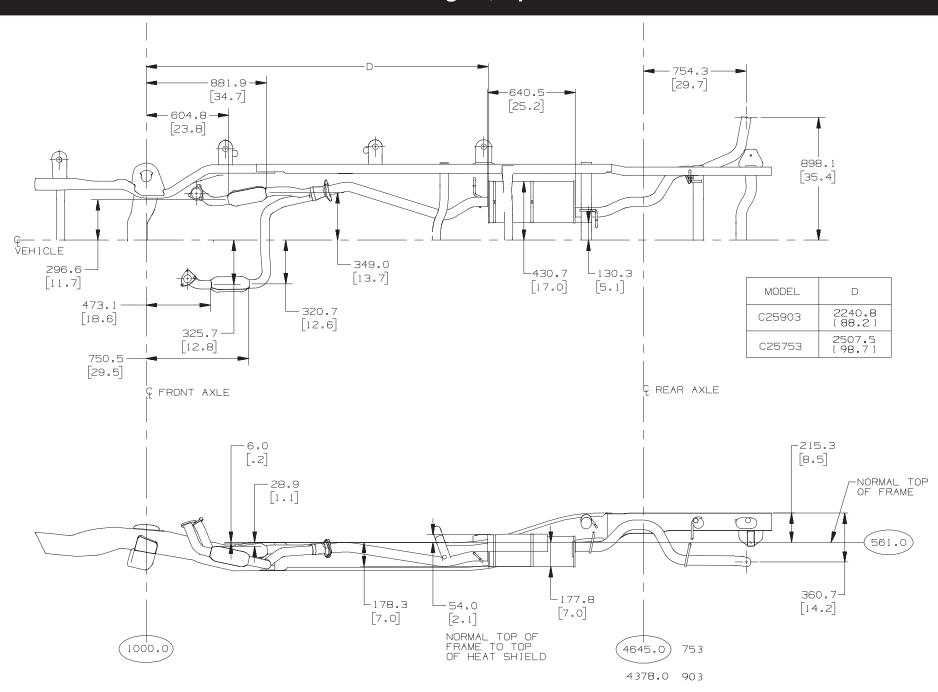
C/K TRUCK (NEW)

4.8L Gas Engine, Option LR4



EXHAUST OPTION LR4/LM7

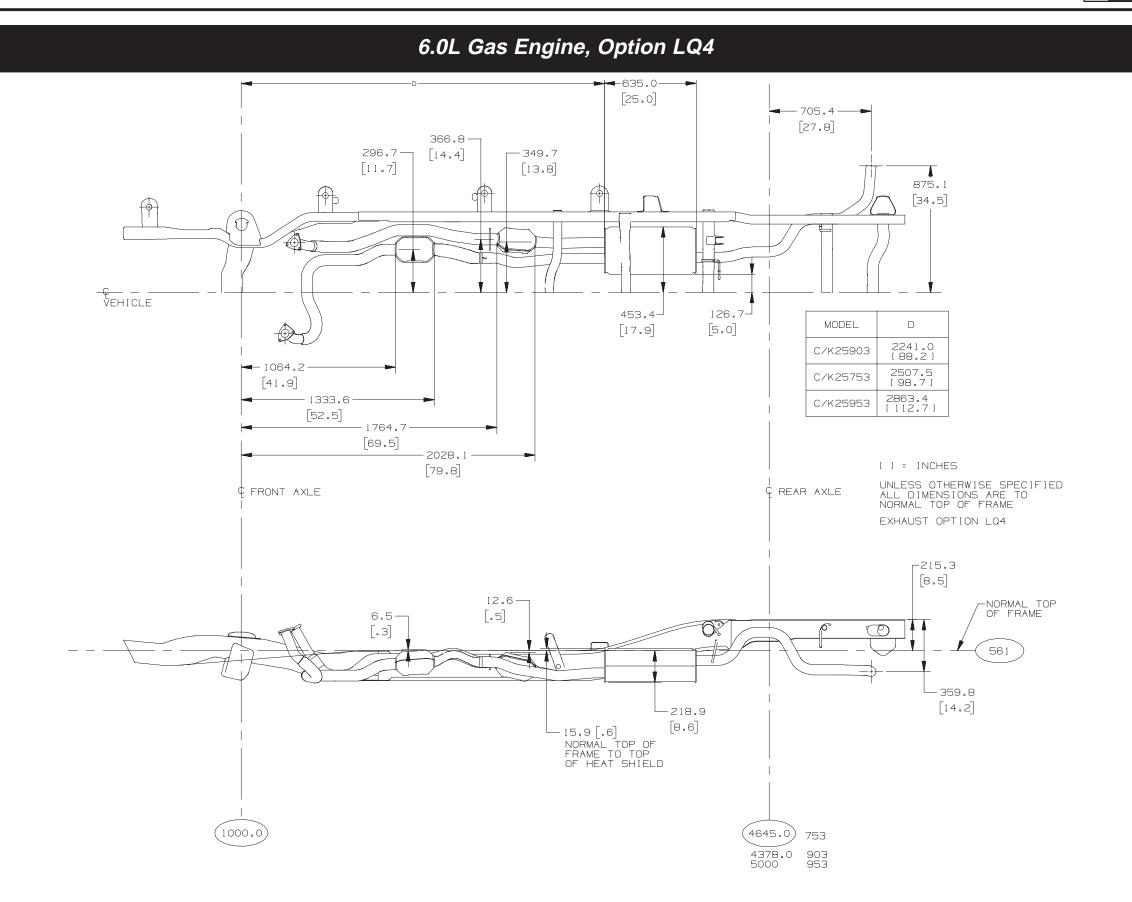
5.3L Gas Engine, Option LM7



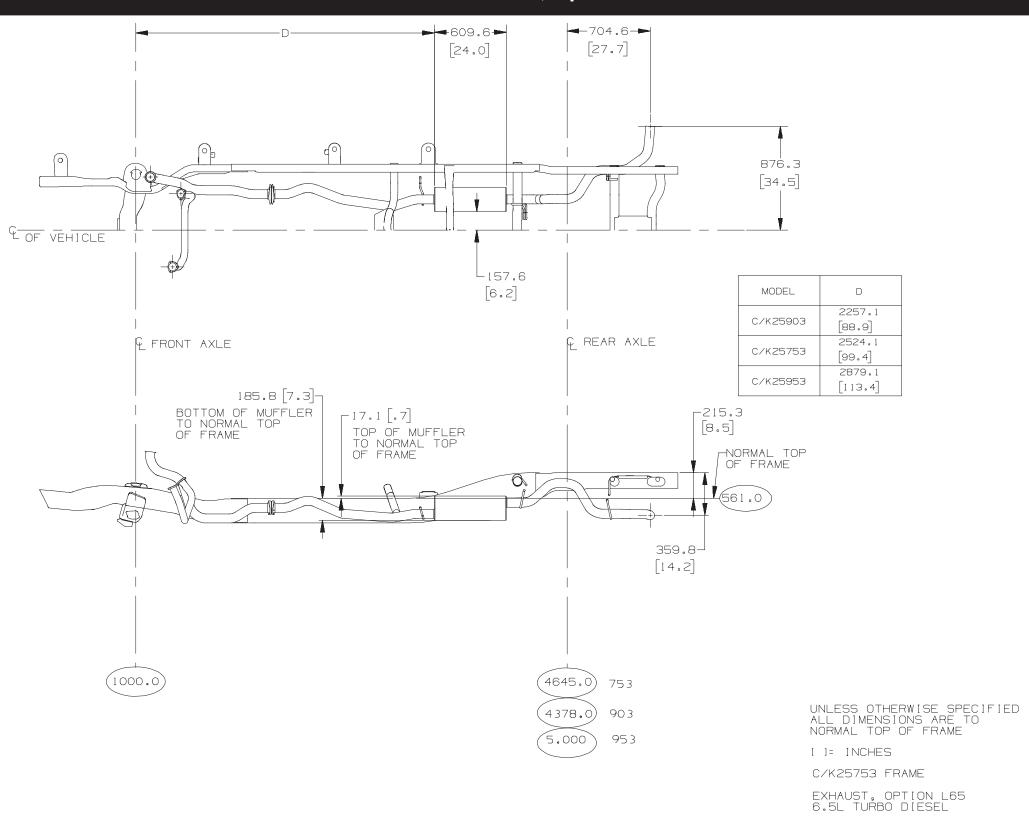
[] = INCHES

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE TO NORMAL TOP OF FRAME

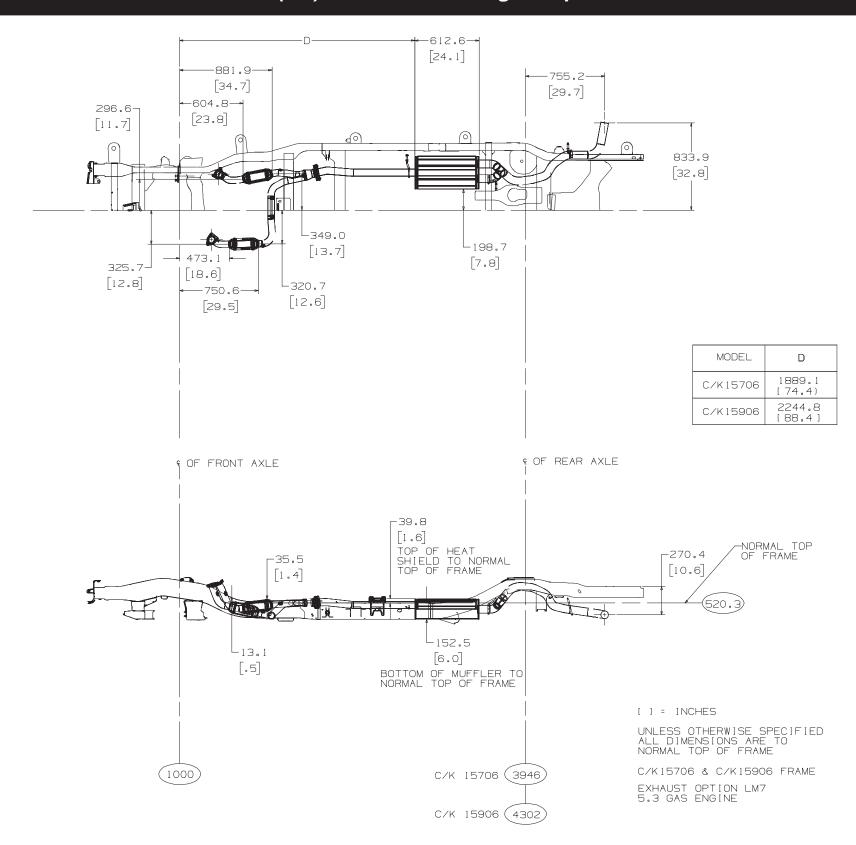
EXHAUST OPTION LM7/LR4



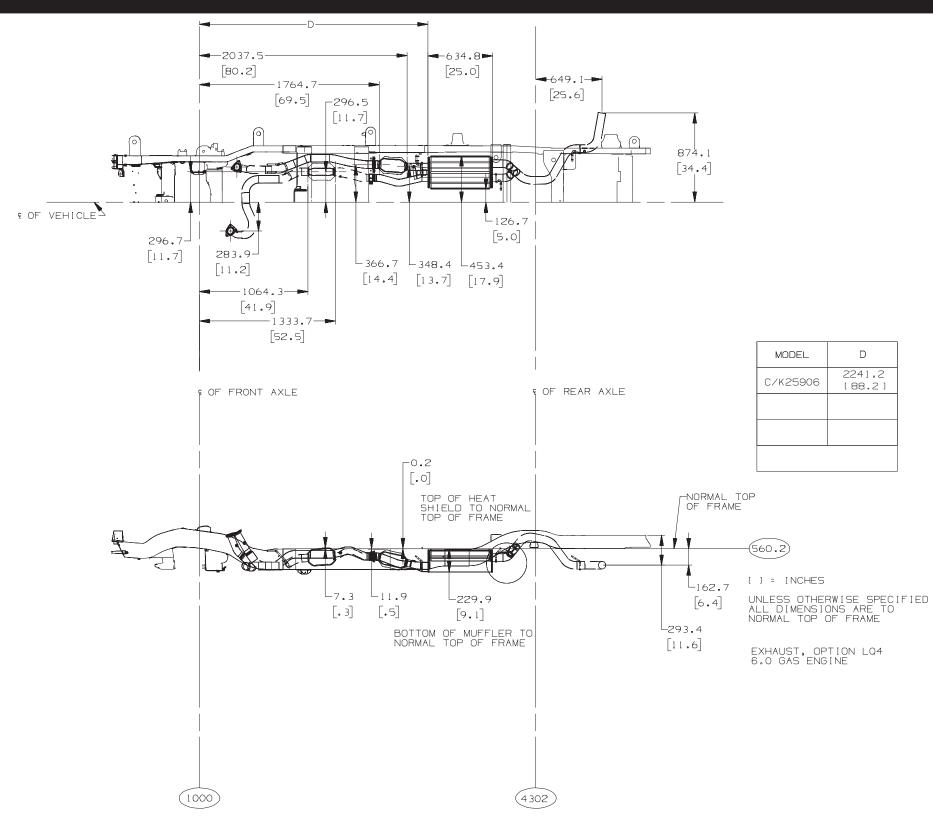
6.5L Turbo Diesel, Option L65



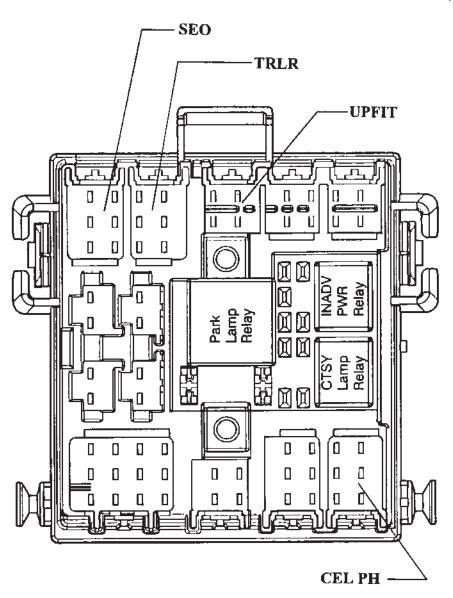
C/K 15 (7/9) 06 – 5.3L Gas Engine Option LM7



C/K 25906 – 6.0L Gas Engine Option LQ4

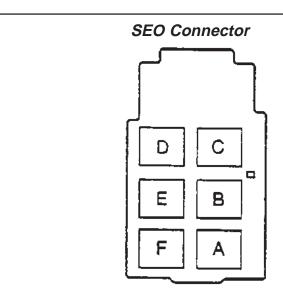


Mid



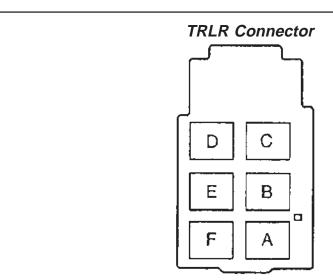
The Mid Bussed Electrical Center (MBEC) is located underneath the instrument panel to the left of the steering column. The MBEC provides access to a number of circuits that upfitters use. These circuits include: Battery, Ground, Ignition, Park Lamp, Speed Signal, etc. The connectors shown above may be used to obtain these feeds provided that they are not used for other purposes (i.e., RPO's, SEO's Trailer Tow, etc.). Please refer to the Circuit Function Charts of these connectors for the circuits, connector part numbers and related information.

MBEC



Mating Part: 12193930 Color: Black

<u>Cavity</u>	Wire Color	Circuit No.	<u>Function</u>
Α	ORN	2340	Hot at all times
В			Not used
С	BLK	2550	Ground
D	YEL	243	Hot in Accessory or Run
E	PNK	739	Hot in Run or Start
F	ORN	2240	Hot at all times



Mating Part: 12193924 Color: Brown

Cavity	Wire Color	Circuit No.	<u>Function</u>
Α	BLU LT	1620	Trailer Brake Switch Feed
В	RED	142	Hot at all times 1)
С	BLU DK	47	Trailer Brake Feed 2)
D	BRN	2409	Interior Park Lamp Feed
Е			Not used
F	BLK	1850	Ground

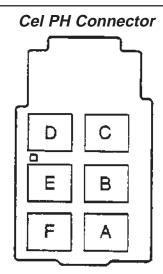
MBEC

Upfit Connector

Connector face not available at time of printing

Mating Part: 12194033 Color: Cream

<u>Cavity</u>	Wire Color	Circuit No.	<u>Function</u>
Α	WHT	156	Courtesy Lamp Output
В		***	Not used
С	DK GRN w/WHT	817	Vehicle Speed Signal
D	ORN	2240	Hot at all times



Mating Part: 12193928 Color: Gray

Cavity	Wire Color	Circuit No.	<u>Function</u>
Α	ORN	2240	Hot at all times
В	DK GRN	835	Diagnostic Signal (E&C)
С	YEL	243	Hot in Accessory or Run
D	ORN	1044	Serial Data Link
E	PNK	739	Hot in Run or Start
F	BLK	1850	Ground