

CHASSIS REQUIREMENTS

MECHANIC TRUCKS



11690 N. 132nd Ave, Surprise, AZ 85379
Tel: 602.269.3581 | www.southwestproducts.com

Table of Contents

Chassis Length - Cab to Axle (CA).....	3
Clean CA Required	3
After Frame (AF) Required	3
Fuel Tanks	4
DEF Tank	4
Air Tank	4
Exhaust.....	4
Battery Location.....	4
PTO Requirement	4
Cab Configuration.....	5
Cab Strobe Lights.....	5
Suspension	5
Rear View Camera.....	5
Trailer Towing.....	5
Recommended Axle Ratings.....	5
Photos - Chassis Layout Per Requirements.....	6-7
86" Chassis.....	6
122" Chassis.....	7
Glossary	8

Have More Questions?

If you need technical assistance or have questions regarding Chassis Requirements, please contact your sales representative via email or phone.

CUSTOMER MUST PROVIDE CHASSIS LAYOUT DRAWING AND/OR DETAILED PHOTOS AND CONFIRM MEASUREMENTS BEFORE BODY WILL BE RELEASED INTO PRODUCTION.

1. CHASSIS LENGTH – CAB TO AXLE (CA)

- Cab to Axle (CA) is the distance from the back for the cab to the center of the rear axle. See reference photos on pages 6-7.
- Specific CA by body type and length:
 - CA for IMT Dominator 1: 84"
 - CA for IMT Dominator 2 or 3 – 11': 84-86" (86" preferred)
 - CA for IMT Dominator 2 or 3 – 14': 120-122" (122" preferred)
 - CA for IMT Dominator 4 – 14': 122"
 - CT for IMT Dominator 4 – 19': 152"

See FUEL TANKS section below for CA recommendations if a larger chassis fuel tank is desired.

2. CLEAN CA REQUIRED

- "Clean CA Required" means the sides of the frame must be clean or clear from any items mounted outside the frame rail. See reference photos on pages 6-7.
- When working with your chassis supplier, make sure the following equipment is inside the frame rails or located under the cab.
 - Air dryer
 - Air tanks
 - DEF tank (locate under the cab or mount as far forward as possible)

Note: There will be an additional cost for relocating items mounted outside of the frame rails.

3. AFTER FRAME (AF) REQUIRED

- The After Frame (AF) is the distance from the center of the rear axle (or trunnions) to the rear of the frame.
- There is a minimum amount of After Frame (AF) required for mounting the body. The following are the minimum AF lengths:
 - AF for IMT Dominator 1: 50"
 - AF for IMT Dominator 2 or 3 – 11': 52"
 - AF for IMT Dominator 2 or 3 – 14': 52"
 - AF for IMT Dominator 4 – 14': 58"
 - AF for IMT Dominator 4 – 19': 88"

4. FUEL TANKS

- Fuel tanks should be either mounted under/along the cab or between the frame rails (Class 5 only). See reference photos on pages 6-7.
- For Peterbilt 337 or Kenworth T270/370, the 56-gallon tank works well with the body configuration. If a 75-gallon tank is used, the CA must be increased by an additional 5" from the minimum CA listed. Please confirm this requirement with SWP before ordering the chassis.

5. DEF TANK

- DEF tank should be mounted either under the cab or immediately behind the cab. See reference photos on pages 6-7.
- If the DEF tank protrudes any amount behind the cab back wall, this may interfere with the body and/or front stabilizers. We must have this information and layout prior to the body arriving to determine if installation is possible or if modification will be required.

6. AIR TANK

- The air tank should be mounted between or under the frame rails. See reference photos on pages 6-7.

7. EXHAUST

- IMT Dominator 1 – Horizontal exhaust exiting behind curbside rear tires is recommended to avoid additional costs for relocation.
- IMT Dominator 2 and larger – Vertical exhaust mounted next to passenger door preferred to avoid additional cost for relocation.

The "Clean CA" includes the exhaust location. If the exhaust extends behind the cab, that is where the "clean" measurement starts.

8. BATTERY LOCATION

- The preferred location for the batteries is under the passenger seat or mounted along the cab side. The batteries can be remote mounted in one of the boxes on the mechanic body if either of the other locations are not available.
- For Remote Mounting Only - The batteries will typically ship from the OEM mounted on plywood secured on the frame rails for remote mounting.

9. PTO REQUIREMENT

- Unless the unit will be self-powered (i.e. Enpak, Vanair, engine-driven compressor

and/or electric-over-hydraulic crane), the chassis must come with a PTO provision for installation of a hydraulic pump. The PTO provision must include an accessible PTO mounting flange capable of 20 HP for single function (typically a Dominator 1 configuration) or 38HP for dual simultaneous function with standard 40-45 cfm compressors (typical Dominator 2 or 3 configuration). For larger compressors and/or other special requirements, confirm the chassis requirements with SWP prior to ordering the chassis.

10. CAB CONFIGURATION

- Cab Switches – Be sure to include a PTO switch. We recommend you order the chassis with additional switches when possible for use with lighting, strobes or other body functions. There is an extra charge for switch installation so ordering extra switches from the OEM/dealer is recommended.

11. CAB STROBE LIGHTS

- Order cab mounted strobes if you want them or at least include strobe prewire in the chassis configuration from the OEM/dealer.

12. SUSPENSION

- Spring or air suspension are both acceptable for mechanic truck configurations.
- If air suspension, add the dual leveling valve option if available.

13. REAR VIEW CAMERA

- If a rear view camera or pre-wire is available, include in the chassis configuration from the OEM/dealer.

14. TRAILER TOWING

- If you plan to tow a trailer, order the chassis from the dealer with the necessary air and other hookups to the rear of the frame from the OEM/dealer.

15. RECOMMENDED AXLE RATINGS

- IMT Dominator 1 chassis (18-26k GVW): Standard axles vary by OEM
- IMT Dominator 2 or 3 (26k GVW) chassis: 10k front / 21k rear
- IMT Dominator 2 or 3 (33k GVW) chassis: : 12k front / 21k rear
- IMT Dominator 4 chassis: : Consult SWP sales representative

86" Chassis Layout Per Requirements - Mechanic Trucks



If you have questions,
please contact your SWP
sales representative.

122" Chassis Layout Per Requirements - Mechanic Trucks



If you have questions,
please contact your SWP
sales representative.

GLOSSARY

Truck Terminology

AF	After Frame - CL (center line) of axle(s) to the end of Frame - sometimes called Overhang
EOF	End of Frame
BA	Bumper to Axle - Front axle
CA	Cab to Axle*
CT	Cab to Trunnion*
BOC	Back of Cab
WB	Wheelbase - Center to Center
BBC	Bumper to Back of Cab
SFFA	Set Forward Front Axle
SBFA	Set Back Front Axle
FET	Federal Excise Tax
GVWR	Gross Vehicle Weight Rating
GCVR	Gross Combination Weight Rating

GVWR (Gross Vehicle Weight Rating) is the maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number - along with other weight limits, as well as tire, rim size and inflation data - is shown on the vehicle's Safety compliance Certification Label, located on the left front door facing or the door latch post pillar. (The GVW, the actual total weight of the vehicle and payload, must never exceed the GVWR.)

GCWR (Gross Combination Weight Rating) is the maximum allowable weight of the towing vehicle and loaded trailer - including all cargo and passengers. (The measured GCW must never exceed the GCWR.)