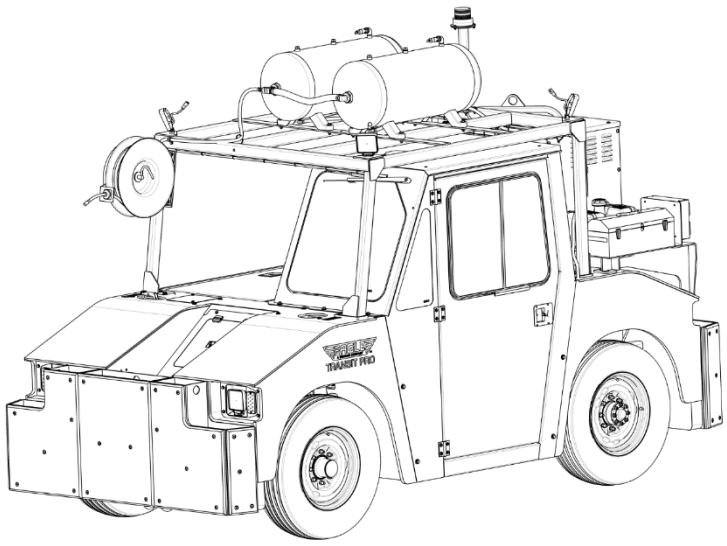
OPERATION & SERVICE MANUAL



Model: TTR-6TP
Tow Tractor

11/2029 – Rev. 29

For Spare Parts, Operations & Service Manuals or Service Needs
Scan the QR code or visit tronair.com/pages/tronair-information-center

Eagle Tugs
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REVISION	DATE	TEXT AFFECTED
01	08/2020	Original release
02	10/2020	Modified 23.1.4 Front Push Bumper with Quick-Attach Snow Plow, 23.5.1 Standard Heated Cab, 23.5.2 No Cab Option, 23.5.3 Heated Cab With A/C Option
03	10/2020	Modified 12.8 Electrical System
04	12/2020	Modified 11.1 Steer Cylinder Sub
05	01/2021	Major Revision
06	02/2021	Modified 22.0 Miscellaneous Components and 6.1 Preventive Maintenance Schedule
07	03/2021	Modified 7.2 Ordering Spare/Service Parts, 12.8 Electrical System, 13.3 Fuel System
08	08/2021	Modified 18.0 Mounted Compressor, 23.5.1 Standard Heated Cab, 23.5.2 No Cab Option , 23.5.3 Heated Cab with A/C Option
09	02/2022	Modified 5.4.1 Starting the Unit, 5.4.3 Load Towing and Pushing Safety, 5.5 Controls and Instrumentation, 12.0 Electrical, 14.0 Dash Panel, 23.5.1 Standard Heated Cab, 23.5 Cab and Overhead Guard Feature, 23.14 Front Push Bumper with Quick-Attach Snow Plow, 23.5.3 Heated Cab with A/C Option, added 7.3 Recommended Spare Parts List, 10.7 Dipstick
10	07/2022	Modified 10.6 Engine Assembly Parts List
11	09/2022	Modified 23.5.1 Standard Heated Cab, 23.5.2 No Cab Option, and 23.5.3 Heated Cab With A/C Option
12	10/2022	Modified 5.3.2 Weekly Operation Checklist, 7.3 Recommended Spare Parts List, 12.4 Electrical System, and 18.0 Mounted Compressor
13	10/2022	Modified 11.2 Manifold Sub and 15.5 Chassis Components
14	01/2023	Modified 23.1.4 Front Push Bumper With Quick-Attach Snow Plow
15	01/2023	Added 22.6 Mounted Compressor Feature
16	03/2023	Modified 14.1 Shifter Sub, and 22.5 Cab and Overhead Guard Feature
17	06/2023	Modified 21.0 Miscellaneous Components and 22.5 Cab and Overhead Guard Feature
18	07/2023	Modified 14.1 Shifter Sub and 14.5 Dash Panel Assembly
19	10/2023	Modified 10.2 Front Axle and 10.4 Rear Axle graphics
20	12/2023	Modified 22.6.1 High Frequency Compressor Option
21	02/2024	Modified 17.0 Cooling System and 22.6.1 High Frequency Compressor Option
22	04/2024	Modified 22.6.1 High Frequency Compressor Option
23	04/2024	Modified 5.4.2 Shutting Down the Unit and 12.4 Electrical System
24	09/2024	Modified 10.6 Engine Assembly, 11.8 Hydraulic System,14.3 Steering Column Sub, 14.5 Dash Panel Assembly
25	10/2024	Modified 10.1 Front Axle Sub and 14.4 Instrument Panel Sub
26	03/2025	Modified 11.8 Hydraulic System
27	09/2025	Modified 22.7.2 10# ABC Fire Extinguisher
28	12/2025	Modified 9.1 Eagle Warranty
29	06/2026	Modified 6.1 Preventative Maintenance Schedule

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From everyone at Eagle Tugs, we would like to say thank you for purchasing an Eagle TTR series tow tractor. We take a lot of pride in the quality of the products that we build, as well as, our continued customer service. Our goal is to build a long term relationship with our customers. We want you, the customer, to be 100% satisfied with your Eagle experience. To us, this means that your Eagle TTR series tractor is functionally superior to any other products you have used. This also means that your Eagle product is continually supported in a professional, timely manner.

WARNING!

Read this manual in its entirety before putting your Eagle tow tractor into service. This manual contains important safety instructions. Improper usage or a failure to follow the safety requirements listed in this manual could result in severe injury or death.

CALIFORNIA - Proposition 65 Warning
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm

1.0 PRODUCT INFORMATION

1.1 DESCRIPTION

This manual is designed as a reference guide to make the reader more familiar with the Eagle-specific components of the Eagle TTR series tow tractor models. This manual includes part numbers and descriptions to assist the reader in ordering component spare/service parts. The manual also outlines the Scheduled Maintenance Intervals recommended by Eagle in order to keep your vehicle running properly.

1.2 MODEL & SERIAL NUMBER

Reference nameplate on unit

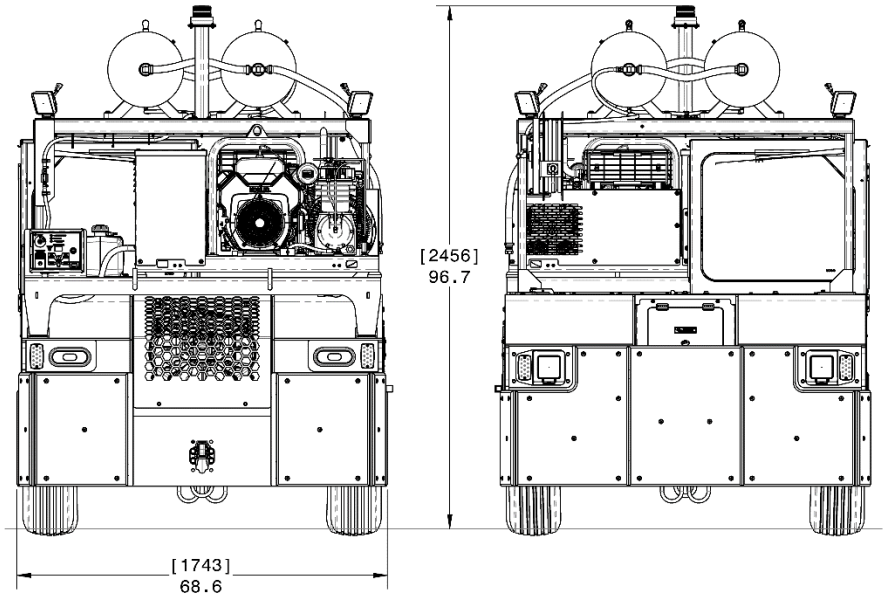
1.3 MANUFACTURER

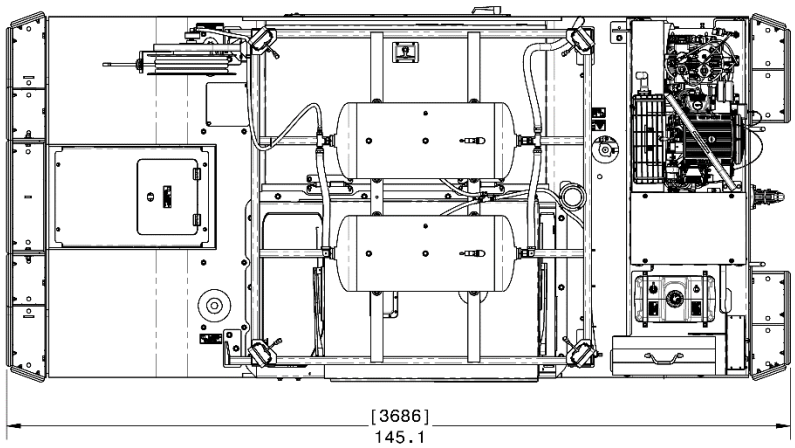
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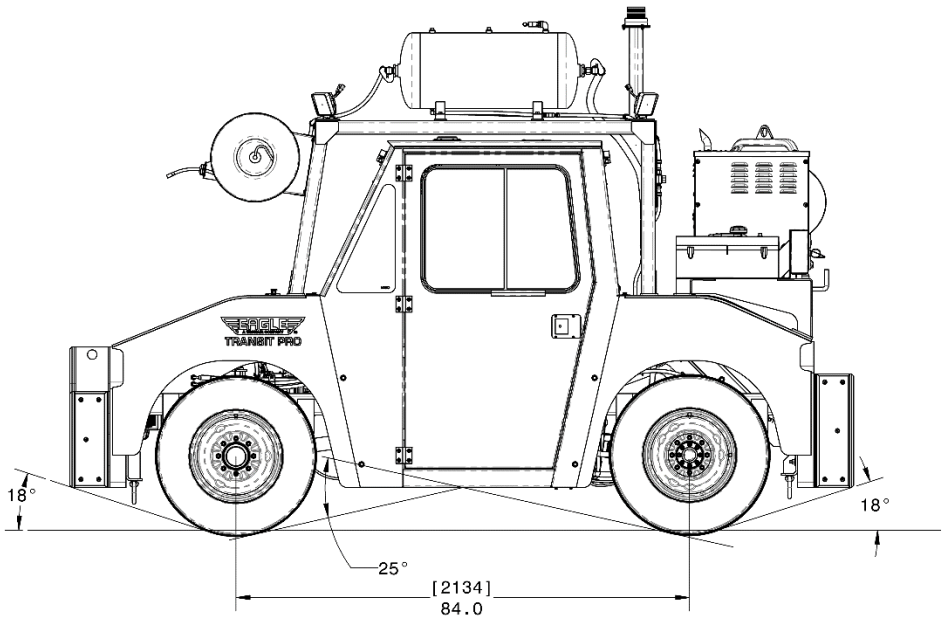
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E-mail: sales@tronair.com
Website: www.tronair.com

Please check www.eagletugs.com periodically for updates to this manual, operations manual, and service bulletins that affect your tractor

1.4 SPECIFICATIONS







1.4.1 Vehicle Specifications

Model	GVW lbs (kg)	Rated DBP lbf (kN)	Vertical Hitch Capacity lbf (N)	Towing Capacity † lbs (kg)
TTR-6TP	9,400 (4,263)	8,000 (36)	500 (2200)	85,000 (38,500)

† Towing Capacity applies to 1% grade, wet surface condition.

1.4.2 Chassis System

Length ..... 145.1 in (3,686 mm)
Width ..... 68.6 in (1,743 mm)
Height at Deck ..... 43.9 in (1,115 mm)
Height at Beacon ..... 96.7 in (2,456 mm)
Step-in Height ..... 11 in (279 mm)
Ground Clearance ..... 8 in (203 mm)

1.4.3 Vehicle Weights

Gross Vehicle Weight ..... 9,400 lbs (4,263 kg)
Weight Distribution ..... 50% Front / 50% Rear

1.4.4 Engine Specifications

Engine Model ..... Kohler KDI 1903 T4f
Displacement ..... 114 cubic in (1.86 l)
Configuration ..... Inline Three Cylinder
Emissions Rating ..... EPA Tier4f/EU Stage IIIB
Power Rating ..... 56 hp (42 kW)
Peak Torque @ 1500 rpm ..... 166 ft-lbf (225 N-m)
Fuel Sulfur Requirement Tier4f / Stage 4 ..... Ultra Low Sulfur Diesel, Sulfur ≤ 15 ppm
Rotation Direction ..... CCW Looking from Flywheel End
Lubrication Oil Volume ..... 9.4 qt (8.9 l)
Flywheel Housing ..... Kohler Engine Plate

1.4.5 Transmission

Model ..... Ford 6F35
Type ..... 5 Speed Electronic
Controller ..... Powertrain Control Solution TCM-2800

1.4.6 Axle Front

Model ..... Dana 44
Type ..... Heavy Duty Drive/Steer
Track Width ..... 57 in (1,448 mm)
Axle Ratio 5.89
Wheel End ..... 8x 1/2-20 on 6.5 B.C.
Input ..... 1350 U-Joint Yoke

1.4.7 Axle Rear

Model ..... Dana 60
Type ..... Heavy Duty Drive
Track Width ..... 58 in (1,473 mm)
Axle Ratio 5.89
Wheel End ..... 8x 1/2-20 on 6.5 B.C.
Input ..... 1350 U-Joint Yoke

1.4.8 Tires

Tire Size ..... LT225/75R16 Load Range E
Tire Capacity Rating ..... 2,680 lbs (1,216 kg)
Tire Inflation Pressure ..... 80 psi (550 kPa)

1.4.9 Electrical

System Type	12 Volt Negative Ground
Alternator Rating	14V, 80A
Starter Rating	12V, 2.0 kW
Battery Type	Group 65, 860 CCA
Battery Configuration	Single Battery

1.4.10 Fuel Tank

Capacity	14.5 gal (55 l)
Tractor Run Time (50% of rated engine power)	10.1 hours
Tractor Run Time (100% of rated engine power)	5.1 hours

1.4.11 Performance

Drawbar Pull Ratting (.9 COF)	8,000 lbf (35.6 kN)
Top Speed - Low	4.3 mph (6.9 kph)
Top Speed - Drive	17 mph (27 kph)
Outside Turning Radius	211 in (5,360 mm)
Approach Angle Without Hitch	24º
Departure Angle Without Hitch	24º
Breakover Angle	25º

2.0 SAFETY INFORMATION

2.1 USAGE AND SAFETY INFORMATION

To ensure safe operations please read the following statements and understand their meaning. Also refer to your equipment manufacturer's manual for other important safety information. This manual contains safety precautions which are explained below. Please read carefully.

WARNING!
Warning is used to indicate the presence of a hazard that can cause ***severe personal injury, death, and/or substantial property damage*** if the Warning Notice is ignored.

CAUTION!
Caution is used to indicate the presence of a hazard, which will or can cause ***minor personal injury or property damage*** is the Caution Notice is ignored.

2.2 IMPORTANT SAFETY NOTICE

Appropriate service methods and proper repair procedures are essential for the safe and reliable operation of all industrial equipment as well as the personal safety of the individual performing the work. This service manual provides general directions for accomplishing service and repair work with tested and effective techniques. Following them will help assure reliability.

There are numerous variations in procedures, techniques, tools, and parts for servicing equipment, as well as in the skill of the individual doing the work. This manual cannot anticipate all such variations and provide advice or cautions as to each. Accordingly, anyone who departs from the instructions provided in this manual must first establish that he compromises his/her personal safety and/or the equipment integrity by his/her choice of methods, tools or parts.

2.3 GENERAL

The following list contains some general warnings that you should follow when you work on equipment:

- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires you to be under the equipment.
- Be sure that the ignition switch and battery is disconnected unless otherwise required by the procedure.
- Set the parking brake when working on the equipment. Place wheel chocks on the tires to provide further restraint from inadvertent equipment movement.
- Keep yourself and your clothing away from moving parts when the motor is running.
- Do not smoke while working on the equipment.
- To avoid injury, always remove rings, watches, loose hanging jewelry, and loose clothing before beginning to work on the equipment. Tie long hair securely behind the head.

For more information regarding safety please refer to the operations manual provided with your tug. This manual can also be found on the Eagle Tugs website at www.eagletugs.com.

2.4 GENERAL SAFETY

The following safety recommendations are not intended to cover all possible safety aspects of the TTR series tow tractor. Please use common sense in addition to the safety recommendations that follow.

WARNING!

Failure to comply with the following safety precautions can result in serious injury or death as well as equipment damage.

- Always do the Pre-Operation Inspection before using the tractor.
- If you have not operated this equipment previously, practice driving and operating it in a safe and clear (not congested) area until you are familiar with all aspects of its operation.
- Always operate the tractor at a speed appropriate for the environmental conditions and the towed load. Slow down in congested areas, when moving a large load, or when conditions reduce traction or visibility.
- Always take care when driving on a slope or uneven ground. Reduce speed and take turns slowly in a controlled manner.
- When working on or around the tractor, take care to keep well clear of any moving components including tires, fans, belts, and driveshafts. Also keep clear of hot surfaces such as exhaust and cooling components.
- The TTR series tractor is intended to be operated on hard improved surfaces. Never drive on soft surfaces, and avoid potholes and damaged pavement.
- The engine of the tractor emits potentially harmful gases when running. Always operate the tractor outdoors or in an environment with adequate ventilation.

3.0 TRAINING

3.1 TRAINING REQUIREMENTS

The employer of the operator is responsible for providing a training program sufficient for the safe operation of the unit.

3.2 TRAINING PROGRAM

The employer provided operator training program should cover safety procedures concerning use of the unit in and around the intended aircraft at the intended aircraft servicing location.

3.3 OPERATOR TRAINING

The operator training should provide the required training for safe operation of the unit.

NOTE: Maintenance and Trouble Shooting are to be performed by a skilled and trained technician.

4.0 PUTTING INTO SERVICE

4.1 UNPACKING AND SETTING UP

The following directions specify the correct steps that should be taken once you receive delivery of your TTR series tow tractor. These steps will ensure that the tow tractor will operate safely. Reference the Parts and Preventive Maintenance Manual for details as appropriate.

- During the unloading of your tractor, note any shipping damage and report it to Eagle Tugs and the shipping company. Verify that all components appear to be in order and undamaged.
- Remove manual and any shipped-loose components from the operator compartment.
- Install shipped-loose components per the Parts and Preventive Maintenance Manual.
- Read this manual in its entirety, paying close attention to all safety requirements.
- Verify that tires are inflated.
- Fill the fuel tank with the appropriate diesel fuel.
- Check the following fluid levels:
  - Engine Oil
  - Hydraulic Fluid
  - Transmission Fluid
  - Coolant
- Familiarize yourself with the tractor operation and control.

5.0 OPERATION

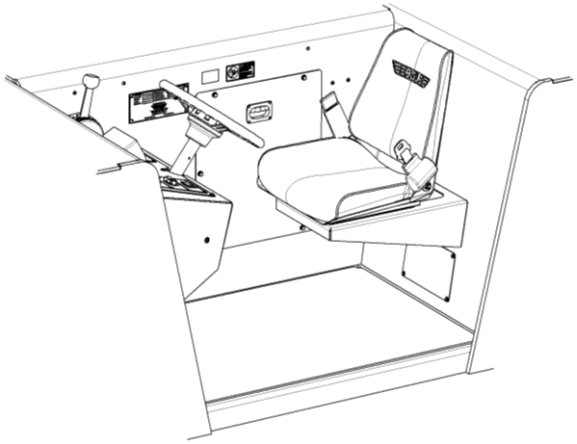
5.1 OPERATOR REQUIREMENTS

The TTR series tow tractor is a piece of industrial equipment and has inherent safety risks. As such, the operator of the tow tractor is expected to have a fork truck or similar license, or be otherwise trained in the usage of material handling equipment.

The operator should read this manual in its entirety before operating the tow tractor.

The operator should be familiar with all aspects of the tow tractor before operating it.

5.2 OPERATOR WORKSTATION



Your TTR series tow tractor features an ergonomically designed operator's workstation. This is the only operator workstation on the tractor. Do not sit on or stand on the tractor outside of this area during tractor movement.

The operator should be seated with the seatbelt secured when moving or operating the tractor.

Keep arms and legs within the perimeter of the tractor's frame to avoid injury. Always place the tractor in Neutral or Park and apply the parking brake before exiting the tractor.

5.3 PRE-OPERATION CHECKLIST

The following inspections should be conducted as stated below. Additional inspections may be required due to unusual operating conditions.

WARNING!

Any problems noted during inspection should be corrected as soon as possible. Failure to promptly attend to problems could compromise safety and/or the tractor's performance. Do not attempt to make repairs. Contact a qualified mechanic.

5.3.1 Daily Pre-Operation Checklist

Daily Pre-Operation Checklist	Satisfactory	Service Required	Not Applicable
Walk-Around Inspection			
Verify no evidence of leaks under and around the tractor			
Verify fuel cap securely in place			
Visually verify tires are fully inflated			
Verify rims and tires free from damage including tire tread			
Verify tire tread is free from debris			
Verify lights, mirrors, and reflectors are clean			
Operational Checks (tractor engine running)			
Verify that the dash LED indicators are free of errors and warnings			
Verify that battery voltage is above 12V			
Verify that horn is operational			
Verify that lights, flashers, and beacon work properly			
Cab Inspection (if equipped)			
Verify windows clean			
Verify windows free of cracks and chips			
Verify windshield wipers operate properly			
Verify heater and fans operate properly			
Drain water from overhead air tanks			

5.3.2 Weekly Operation Checklist

Weekly Pre-Operation Checklist	Satisfactory	Service Required	Not Applicable
Walk-Around Inspection			
Verify tire inflation pressure at 80 psi / 550 kPa			
Engine Compartment Inspection			
Check engine oil level (top off in necessary)			
Check engine coolant level (top off if necessary)			
Check hydraulic fluid level (top off if necessary)			
Drain water from fuel/water separator			
Verify wiring, hoses, and tubing free of leaks and damage			
Remove dust from air cleaner dust valve			
Follow instructions in Mi-T-M-Start manual			
Follow instructions in Goodall Super Boost-All manual			

5.4 STARTUP/SHUTDOWN AND SAFE TOWING

5.4.1 Starting The Unit

1. With feet firmly on the floor mat, adjust the seat to a comfortable position.
2. Sit in the operator seat and buckle the seat belt.
3. Verify that the gear selector is in the park or neutral position.
4. Verify that the parking brake is set. If not, set it now.
5. Start the engine with the ignition switch.
6. Select the desired transmission gear (L or R for towing, D or R for unloaded travel)
7. While holding the service brake pedal, release the parking brake.
8. Verify that the intended path of the tractor is clear of obstructions and personnel and then proceed with driving.

5.4.2 Shutting Down The Unit

1. Bring the tractor to a complete stop with the service brake.
2. Put the tractor in park using the shift lever.
3. Set the parking brake by pulling the parking brake handle.
4. Turn the tractor off by turning the ignition switch. Do not use the battery disconnect to shut down the tractor.**

****WARNING!**

The key switch should be turned off for 30 full seconds before turning the battery disconnect switch off. Using the battery switch to turn the truck off interrupts the engine shutdown process and can cause engine errors.

5.4.3 Load Towing And Pushing Safety

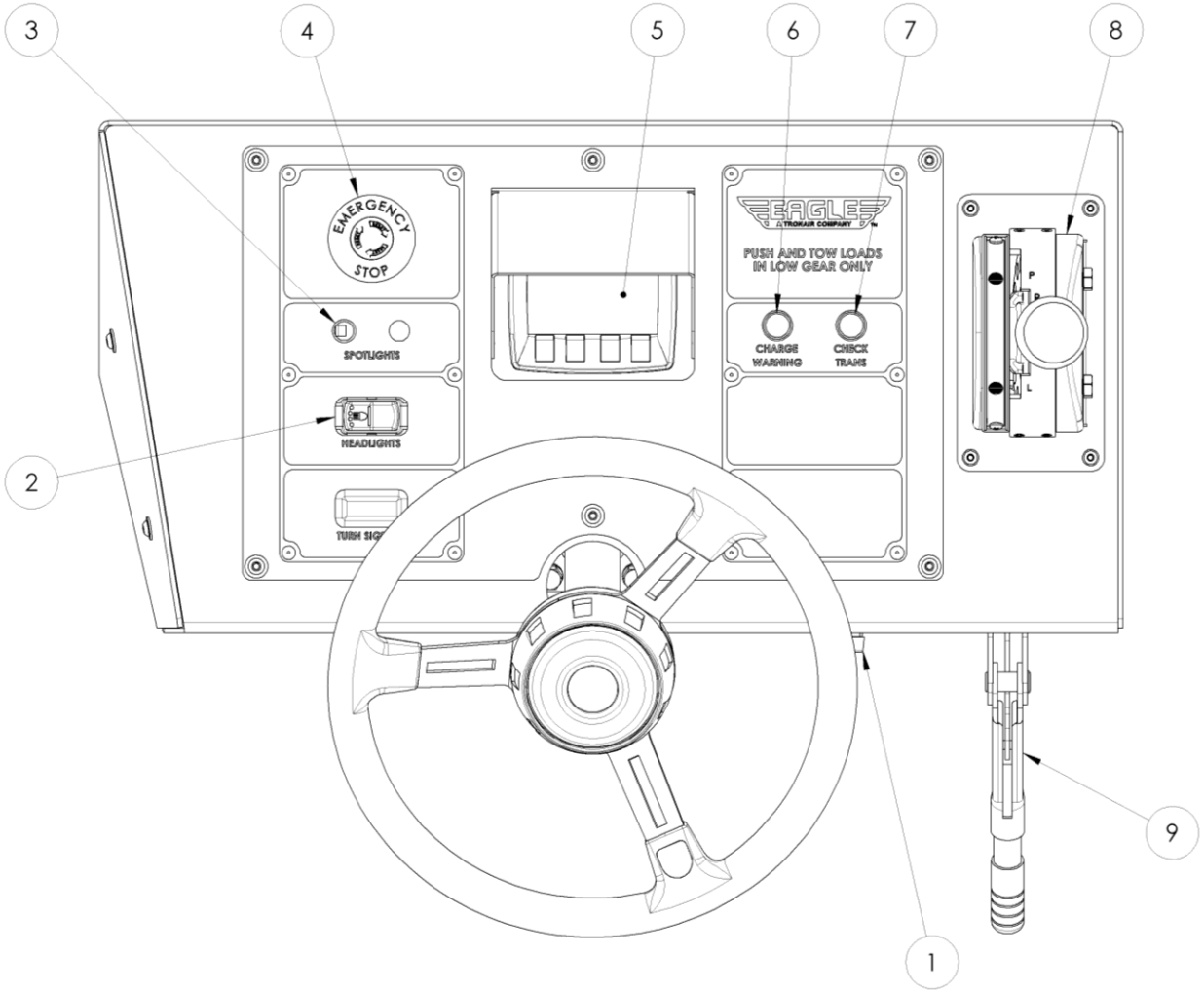
If towing or pushing a load, check to see that:

- The towed load is securely connected to the hitch of the tractor. Be sure hitch is locked/fastened into the closed position.
- For maximum tractor and load control and stability, as well as towing power, be sure the towbar is parallel to the ground when connected to the tractor's hitch.
- Ensure the plane or other towed load clears all obstacles when towing.

5.4.4 Safety Shutdown System

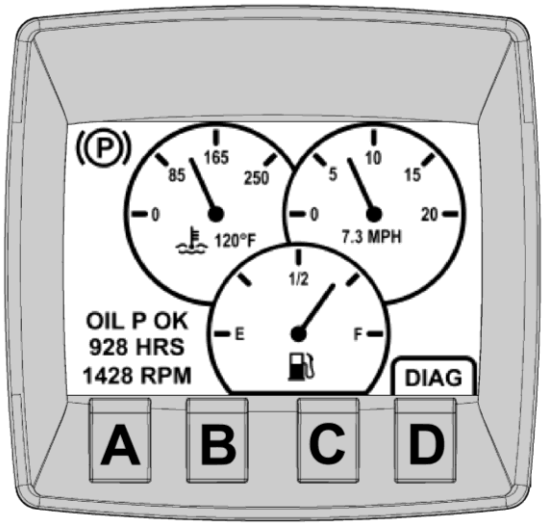
- The TTR is equipped with an engine shutdown system that will cut power to the engine if the system detects uncontrolled movement of the tractor.
- The truck should never be left unattended while running unless the transmission is set to the Park position and the parking brake is set.

5.5 CONTROLS AND INSTRUMENTATION



1. **Ignition Switch:** Your tractor is equipped with a keyed or keyless ignition switch. The switch provides power to the tractor and is used to crank the engine.
2. **Headlight Switch:** The headlight switch is an on/off type. There is no hi/low beam control position.
3. **Spotlight Switches:** The spotlight switches are on/off types. The rear spotlight is standard equipment. The rear and front spotlights (if equipped) are controlled independently.
4. **Emergency Stop:** In the event of an emergency, the emergency stop button will shut down the engine of the tractor.
   Note that steering and braking functionality is greatly impeded when the engine is not running.
5. **Multi-function Digital Display:** The digital display module provides critical information on the tractor operational status. The digital display module includes detailed I/O diagnostics that enable troubleshooting of various tractor systems without needing a laptop or other external device. The digital display can provide specific engine diagnostic codes that allow easy troubleshooting of engine issues.
6. **Charge Warning Lamp:** The charge warning lamp is illuminated any time the alternator is not charging properly. If the engine is running and the charge warning lamp illuminates, the charge system (alternator, battery, and battery cables) should be inspected by maintenance personnel. Continued usage with a faulty charging circuit will lead to a dead battery.
7. **Transmission Warning Lamp:** The transmission warning lamp can provide notification of an issue with the transmission, and can relay specific blink codes that allow easy troubleshooting of transmission issues
8. **Transmission Shifter:** The transmission shifter is a cable style in a standard automotive PRNDL layout. Only use L (low) or R (reverse) for towing operations to maintain a safe tow speed. Rapid shifting between forward and reverse gears can result in a no-shift scenario due to transmission abuse protections. If the tractor refuses to shift into the selected gear, put the shift lever in Neutral and then back into the desired gear.
9. **Parking Brake Lever:** The parking brake can be engaged or released with the parking brake lever. The parking brake should never be used to stop a moving unit except in an emergency situation.

5.5.1 Multi-Function Display



Operation Screen:
The multi-function display allows for monitoring a wide range of vehicle parameters. The default running operation screen includes all of the following diagnostic information:

- Parking brake indicator
- Coolant temperature
- Vehicle speed
- Fuel level
- Oil pressure switch status
- Engine Hours
- Engine speed

Brightness/Contrast:
Press A from the Operation Screen. Use the A and B buttons to adjust the brightness. Use the C and D buttons to adjust the contrast.

The display will return to the Operation Screen after 5 seconds without a key press.

Imperial/Metric Units:
Press C then B at the same time for 3 seconds to toggle from Imperial to Metric Units.

Engine Fault Codes:
Press B to from the Operation Screen to view the Engine Fault Screen. This will show active and inactive faults that have occurred since the vehicle was turned on. If you are receiving a fault code, take careful note of it before powering down the tractor. It may not be present on the next startup.

Error Messages:
The multi-function display is capable of showing many error, warning, and informational messages such as Low Fuel Level, Drivetrain Fault, and others.

I/O Diagnostics:
Press D to from the Operation Screen to view the I/O diagnostics menu. This menu allows you to review a wide range of data about the vehicle. Flip between diag screens using the arrows, and use D to exit the diagnostics.

See below for a brief description of each parameter.

Diagnostic Screen 1 - Engine:

- ENG HRS: Engine hours as recorded on the engine ECU and broadcast over the J1939 communication bus.
- REQ SPD: The requested engine RPM as calculated by the vehicle controller and sent to the engine over the J1939 communication bus. Range is 900-2600.
- ACT SPD: The actual engine RPM as read by the engine ECU and broadcast over the J1939 communication bus.
- % LOAD: The engine power output as read by the engine ECU and broadcast over the J1939 communication bus.
- OIL P: Oil pressure status as read by the engine ECU and broadcast over the J1939 communication bus. Values are “OK” or “LOW”.
- WTR TEMP: The coolant temperature as read by the engine ECU and broadcast over the J1939 communication bus.
- FUEL TEMP: The fuel temperature as read by the engine ECU and broadcast over the J1939 communication bus.
- INTK TEMP: The air intake temperature as read by the engine ECU and broadcast over the J1939 communication bus.
- WIF SENS: The status of the water-in-fuel sensor as read by the engine ECU and broadcast over the J1939 communication bus. Values are “DRY” or “DRAIN”.
- FAN REQ: The requested cooling fan speed percentage as calculated by the vehicle controller and used to drive the proportional relief valve in the hydraulic manifold.

5.5.1 Multi-Function Display *(continued)*

Diagnostic Screen 2 - Transmission:

- SH IN PRCS: Whether or not the transmission is in process of shifting as recorded by the transmission TCU and broadcast over the J1939 communication bus. Values are “YES” or “NO”.
- SHTR POS: Shift lever position as recorded by the transmission TCU and broadcast over the J1939 communication bus. Valid positions are “P”, “R”, “N”, “6” (Drive), and “1” (Low).
- SEL GR: Shifter selected gear as recorded by the transmission TCU and broadcast over the J1939 communication bus.
- CUR GR: Current gear as recorded by the transmission TCU and broadcast over the J1939 communication bus.
- OIL TMP: Current transmission fluid temperature as measured by the transmission TCU and broadcast over the J1939 communication bus.
- IN SPD: Current transmission input speed as measured by the transmission TCU and broadcast over the J1939 communication bus.
- OUT SPD: Current transmission output speed (before final drive) as measured by the transmission TCU and broadcast over the J1939 communication bus.
- % SLIP: Ratio between input and output speed as measured by the transmission TCU and broadcast over the J1939 communication bus.
- TRQ C LK: Torque converter lockup status as recorded by the transmission TCU and broadcast over the J1939 communication bus. Values are “YES” or “NO”.

Diagnostic Screen 3 - TPS:

- TPS1 CAL H: Current calibrated max voltage for the primary throttle position sensor.
- TPS1 CAL L: Current calibrated min voltage for the primary throttle position sensor.
- TPS1 VALUE: Current actual voltage for the primary throttle position sensor.
- TPS2 CAL H: Current calibrated max voltage for the secondary throttle position sensor.
- TPS2 CAL L: Current calibrated min voltage for the secondary throttle position sensor.
- TPS2 VALUE: Current actual voltage for the secondary throttle position sensor.
- CMDN SPEED: The requested engine RPM as calculated by the vehicle controller based on throttle position and sent to the engine over the J1939 communication bus. Range is 900-2600.
- ACTL SPEED: The actual engine RPM as read by the engine ECU and broadcast over the J1939 communication bus.

Diagnostic Screen 4 - Inputs and Outputs:

- FL SND: Measured resistance of the fuel sender.
- FUEL LVL: Calculated fuel percent based on the resistance of the fuel sender.
- SRVC BRK: Status of the service brake pressure switch as measured by the vehicle controller. Values are “ON” or “OFF”.
- P-BRAKE: Status of the parking brake handle proximity switch as measured by the vehicle controller. Values are “ON” or “OFF”.
- NTRL SFTY: Status of the parking brake handle proximity switch as measured by the vehicle controller. Values are “ON” or “OFF”.
- KEY CRNK: Status of the crank output from the key switch. Values are “ON” or “OFF”.
- FAN PWM: The PWM duty cycle driving the proportional relief valve in the hydraulic manifold that controls cooling fan speed.
- STRT INH: The ignition crank output from the vehicle controller to the start relay. Values are “ON” or “OFF”.
- BATTERY: The system voltage as measured by the vehicle controller.

Diagnostic Screen 5 - Parameters:

- IDLE RPM: Engine RPM that the vehicle controller will command with the throttle pedal in the full up position.
- WOT RPM: Engine RPM that the vehicle controller will command with the throttle pedal in the full down position.
- AXLE GR: Gear ratio for the final drive and axle, used to calculate vehicle speed.
- TIRE RAD: Tire radius in inches, used to calculate vehicle speed.
- LOW FUEL: The fuel percentage set point below which the display will prompt with a “LOW FUEL LEVEL” warning message.
- START CUT: The engine RPM above which the starter will refuse to engage for starter protection.
- RAMP UP: The maximum speed increase rate in milliseconds from idle to WOT for smoothing of engine response.
- RAMP DWN: The maximum speed decrease rate in milliseconds from WOT to idle for smoothing of engine response.
- DISP SOFT: The current software version loaded on the display module.
- CNTL SOFT: The current software version loaded on the vehicle controller module.

6.0 MAINTENANCE

6.1 PREVENTIVE MAINTENANCE SCHEDULE

NOTE: Refer to Vanair Cap-Start manual for all Cap-Start maintenance

Preventive Maintenance Item	Daily	Weekly	First 150 hours	250 hours	500 hours	1000 hours or annually †	5000 hours
Perform daily pre-operation checklist	X						
Check engine oil level and top off as necessary		X					
Check coolant level and top off as necessary		X					
Check hydraulic fluid level and top off if necessary*		X					
Verify tire pressure at 80 psi / 550 kPa and add air as necessary		X					
Drain water from fuel/water separator*		X					
Re-torque axle U-bolts			X				
Re-torque 3/8-24 spindle nuts on front axle to 40 ft-lbs (see Appendix II, item 52)			X				
Check transmission oil level and top off if necessary (engine at idle)			X	X			
Adjust alternator belt tension*				X			
Replace fuel filter cartridge*					X		
Drain and replace engine oil and replace oil filter cartridge*					X		
Check axle brakes and replace pads/discs/drums if necessary					X		
Grease steering grease fittings on axles					X		
Grease driveshaft U-joints and slip shafts					X		
Inspect wheel lug nuts and tighten if necessary					X		
Inspect steering linkage jam nuts and tighten is necessary			X		X		
Check engine belt for damage/wear and replace if necessary*						X	
Drain water from charge air cooler/pipes						X	
Check all battery cable connections for tightness and corrosion						X	
Flush and replace engine coolant						X	
Check coolant hoses for damage/wear and replace if necessary						X	
Replace the air cleaner primary filter*						X	
Check/replace the air cleaner safety filter*						X	
Check tractor batteries and replace if necessary						X	
Drain hydraulic fluid from tank and replace						X	
Remove and clean hydraulic fluid magnetic drain plug						X	

6.1 PREVENTIVE MAINTENANCE SCHEDULE *(continued)*

Preventive Maintenance Item	Daily	Weekly	First 150 hours	250 hours	500 hours	1000 hours or annually †	5000 hours
Replace hydraulic filter*						X	
Re-torque axle U-bolts if they show signs of loosening						X	
Re-torque driveshaft U-joint retainers						X	
Inspect all hydraulic and coolant hoses for wear/damage and leaks						X	
Inspect all hydraulic tube clamps and tighten if necessary						X	
Inspect hitch pins for wear and replace if beyond specifications						X	
Inspect engine mount brackets and re-torque if necessary						X	
Inspect transmission mount brackets and re-torque if necessary						X	
Inspect engine/trans mount isolators and replace if necessary						X	
Replace the intake manifold hose (air filter to intake manifold)							X
Replace coolant hoses							X
Replace fuel hoses							X
Inspect/replace hydraulic hoses							X
Drain and replace transmission fluid							X

Any items found to be deficient during the preventive maintenance review should be repaired or replaced. All fluids found low should be topped off. Refer to section 10 for fluid and filter specifications and part numbers.

* See relevant diagrams/instruction in this section for these items.

† Whichever time period is shorter.

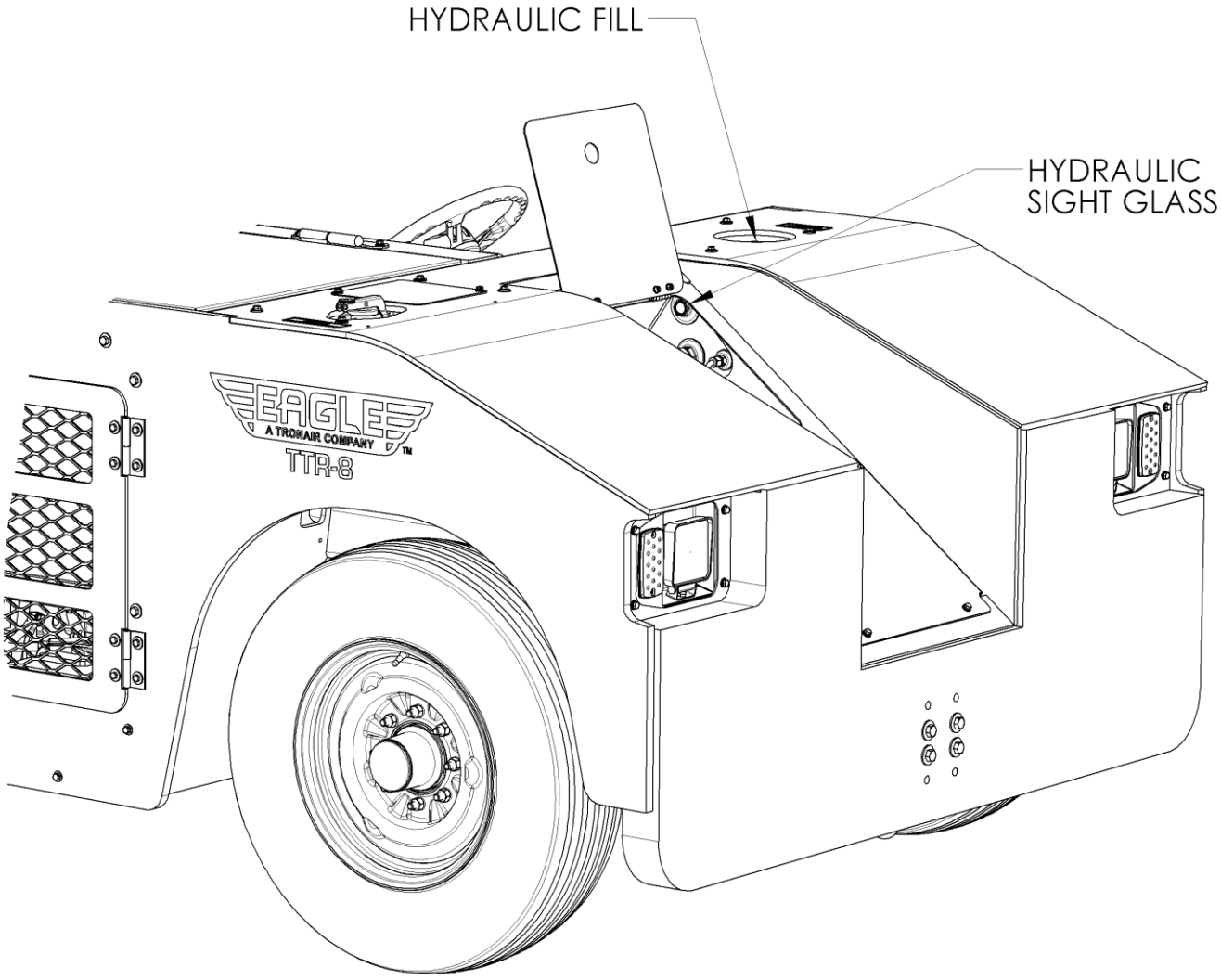
6.2 FLUIDS AND FILTERS

FLUID SPECIFICATIONS			
Fluid	**Recommendation**	**Requirement**	**Volume** approximate
Engine Oil (Tier 4f)	Shell Rotella T6 Synthetic 5W-40	API CJ4, Low SAPS	2.38 gal (9 l)
Transmission Fluid	Motorcraft Mercon LV	Mercon LV	2.25 gal (8.5 l)
Hydraulic Fluid	Castrol Dual Range HV 32	ISO 32 Mineral Oil Based	12 gal (45.5 l)
Front Axle Gear Oil	N/A	SAE 80W90 Hypoid Gear Oil	6 pt (2.8 l)
Rear Axle Gear Oil	N/A	SAE 80W90 Hypoid Gear Oil	9.2 pt (4.3 l)
Coolant	N/A	50/50 Ethylene Glycol Mix	4.8 gal (18.2 l)
Brake Fluid	N/A	DOT 3	1.5 pt (0.7 l)

6.3 HYDRAULIC SIGHT GLASS AND FILL

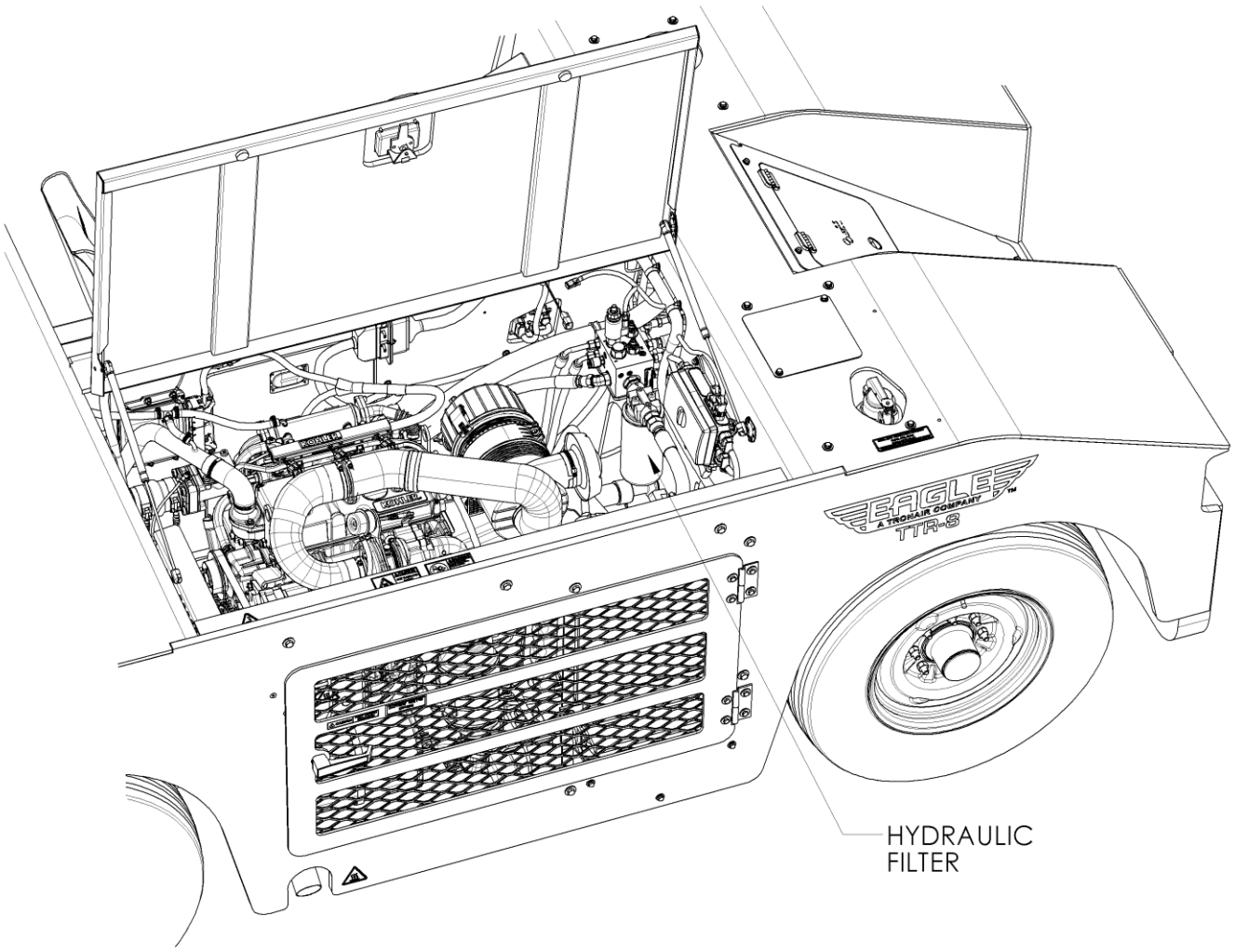
Hydraulic Fluid:

Recommendation ..... Castrol Dual Range HV 32
Total Volume ..... 12 gal (45 l) approximate
Tank Volume ..... 10 gal (38 l) approximate



6.4 HYDRAULIC FILTER

Hydraulic Filter NVSP-09-018-CA



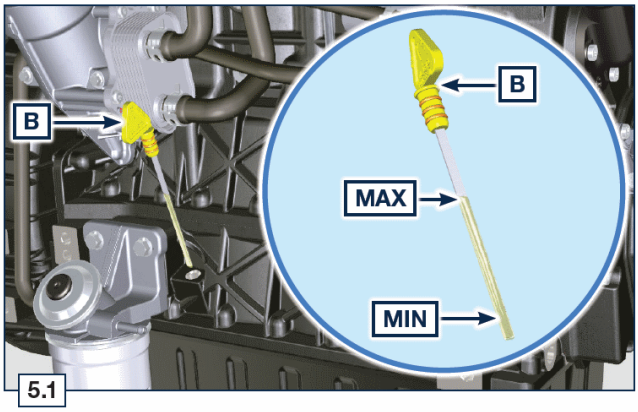
6.5 ENGINE OIL CHECK

Oil level check

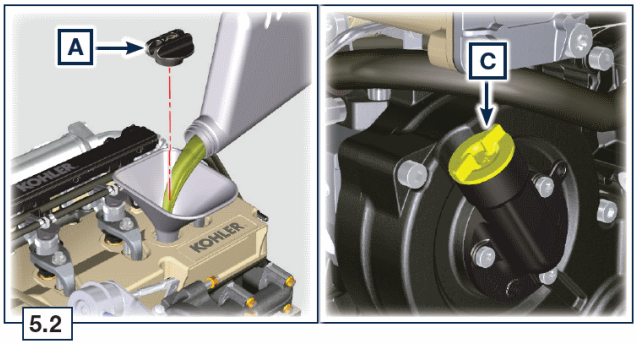
1. Loosen the oil filler cap A.
   Remove the oil dipstick B and check that the level is up to MAX.
2. Pour in recommended oil until reaching the MAX level mark.
3. Reinstall the oil dipstick B completely.
4. Re-tighten the cap A and/or C (Fig. 5.2).

Important

- Do not use the engine with the oil level below the minimum.



5.1

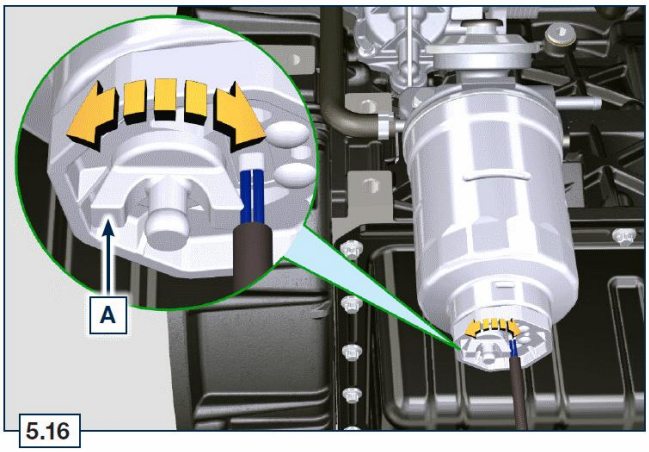


5.2

6.6 FUEL FILTER WATER DRAIN

Fuel filter water drain

1. Gently loosen the wing screw A without removing it.
2. Drain the water if present.
3. Re-tighten the wing screw A as soon as the fuel begins to flow.



5.16

6.7 ENGINE OIL REPLACEMENT

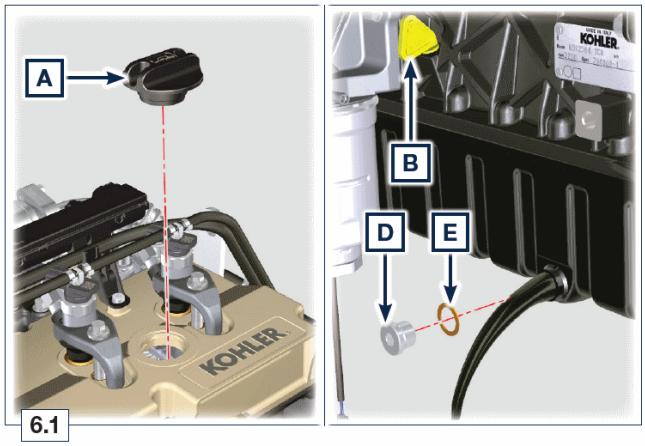
Engine oil replacement

Important

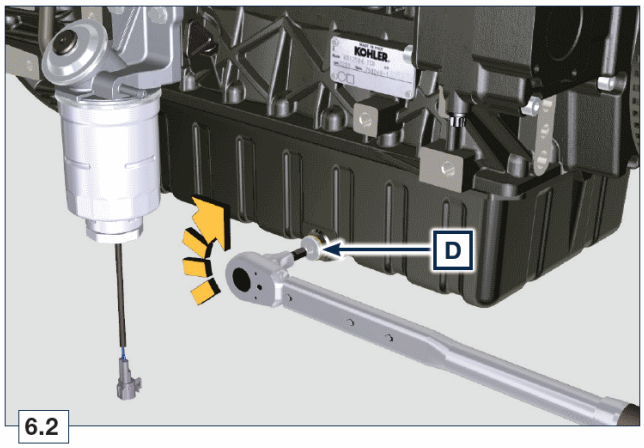
• Place engine on level surface to ensure accurate measurement of oil level.

NOTE: ***Perform this operation with warm engine, to get a better fluidity of the oil and get a full discharge of oil and impurities contained in it.***

1. Unscrew the oil filter cartridge holder cover.
2. Loosen the oil filler cap A (Fig. 6.1).
3. Remove the oil dipstick B.
4. Remove the oil drain plug D and the gasket E (the oil drain plug is on both sides of the oil sump).
5. Drain oil in an appropriate container.
6. Replace gasket E.
7. Tighten the drain oil plug D (tightening torque at 35 Nm).
8. Replace the oil filter cartridge.
9. Add the type oil recommended.



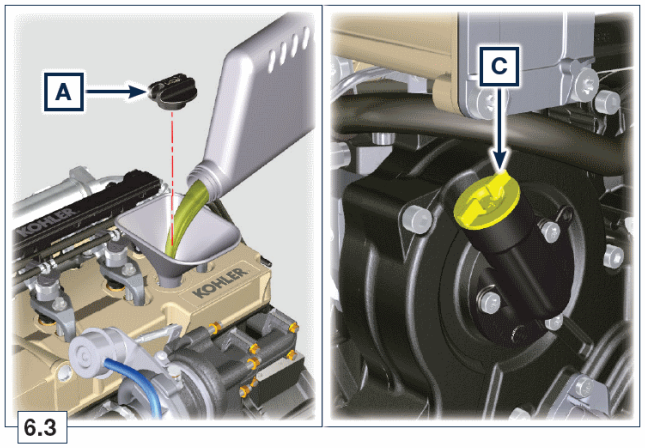
6.1



6.2

Important

• Do not exceed the MAX level on the dipstick.



6.3

6.8 ENGINE OIL FILTER CARTRIDGE REPLACEMENT

Oil Filter Cartridge Kit K-5303
Oil Filter Seal Kit K-5304

Oil filter cartridge replacement

Important

• Electric/pneumatic screwdrivers are forbidden.

1. Unscrew cartridge holder cover A by performing three complete turns and wait 1 minute.

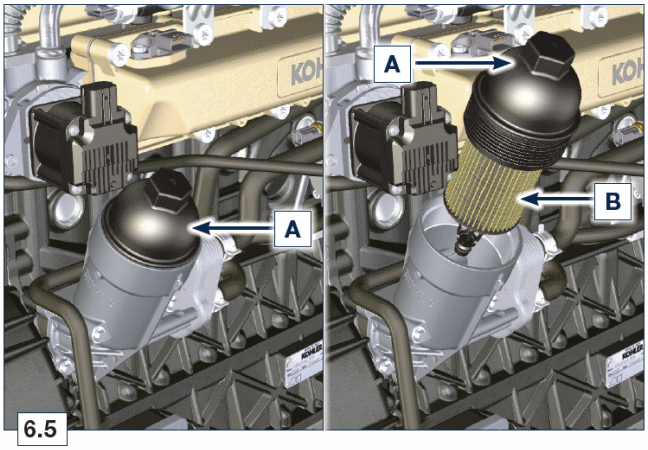
NOTE: ***This operation allows to oil contained in the support F to flow into the oil sump in the correct way.***

2. Unscrew cartridge holder cover A and check that the oil in the lub. oil filter support F has flowed towards the oil sump.

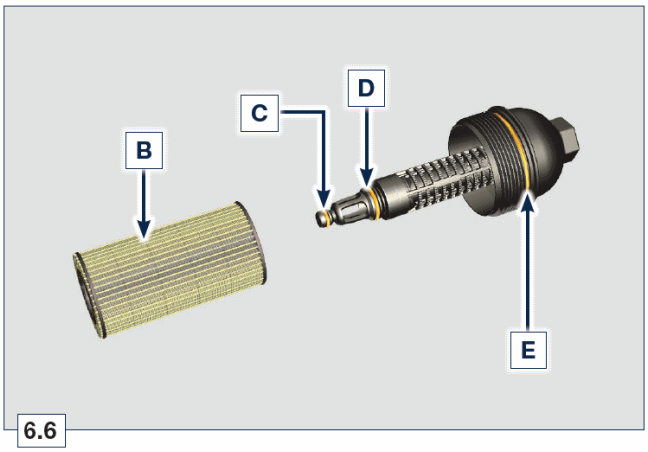
3. Remove the cap A as well as the oil cartridge B from the oil filter support.

4. Remove and replace the oil cartridge B with a new one. Remove and replace the gaskets C, D and E with new ones.

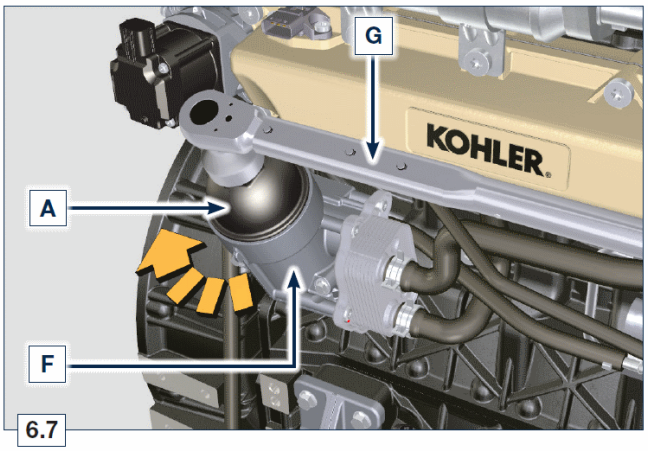
5. Fit and tighten the cover A on the oil filter support F, tightening it with a torque wrench G (tightening torque of 25 Nm).



6.5



6.6



6.7

6.9 ENGINE FUEL FILTER CARTRIDGE REPLACEMENT

Fuel Filter Cartridge Kit K-5305

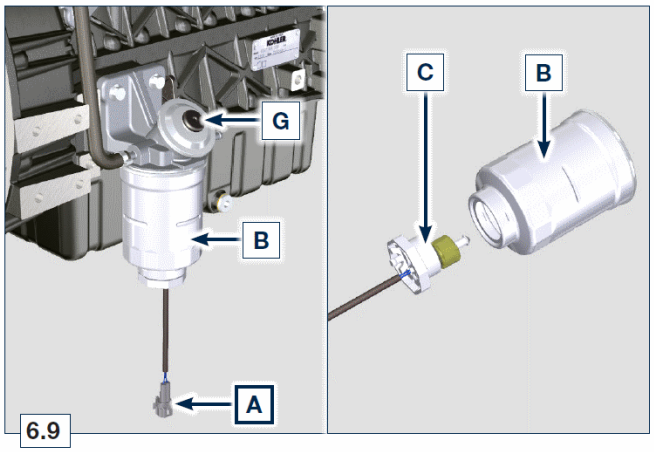
Filter cartridge and fuel pre-filter replacement

1. Disconnect the cable A of the water presence sensor C.
2. Remove the water presence sensor C from its cartridge B.
3. Loosen the cartridge B using the appropriate wrench F (Fig. 6.10).
4. Lubricate the gasket D of the new cartridge B.

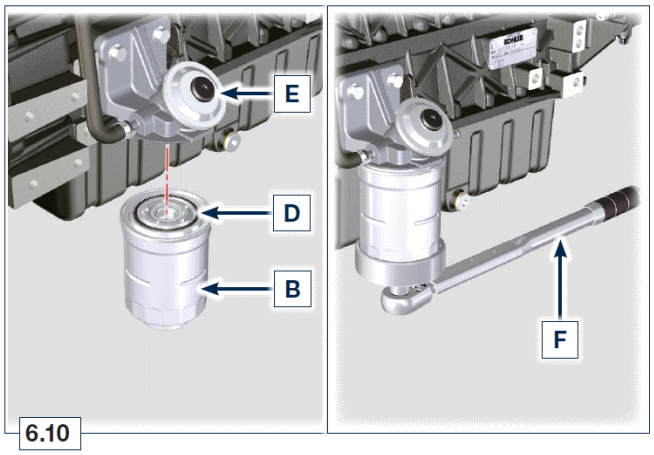
Important

• Do not fill the new cartridge B with fuel.

5. Tighten the new empty cartridge B (Fig. 6.10) on the diesel fuel filter support E using the special wrench F (tightening torque of 17 Nm).
6. Tighten the water presence sensor C on the new cartridge B (tightening torque of 5 Nm).
7. Reconnect the cable A of the water presence sensor C.
8. Push repeatedly the button G in order to fill the circuit.



6.9



6.10

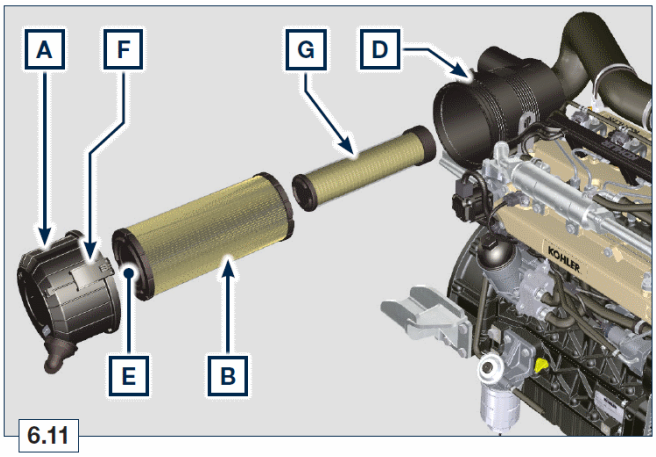
6.10 ENGINE AIR FILTER REPLACEMENT

Air Filter Primary Kit K-5306
Air Filter Secondary Kit..... K-5307

Air filter cartridge replacement

NOTE: ***Component not necessarily supplied by KOHLER.***

1. Release the two fastenings F of the cover A.
2. Remove the cartridges B and G.
3. Reinstall:
   - the new cartridges B and G.
   - the cover A checking the right tightness of fastenings F.



6.11

6.11 ALTERNATOR BELT TENSION

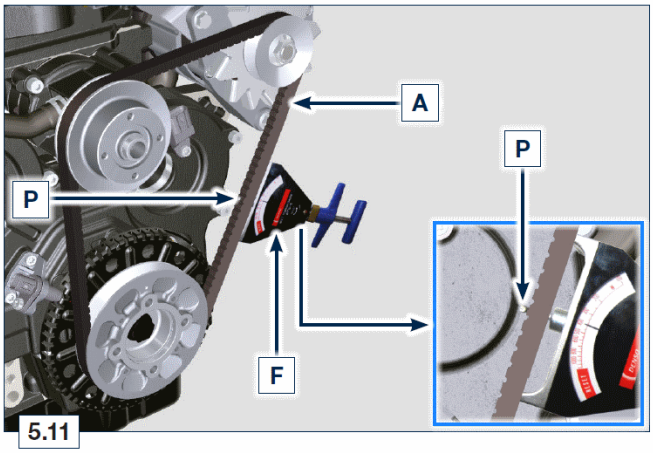
Alternator Belt Kit K-5312

Check and setting alternator standard belt tension

5.9.1 Check

1. Check the belt A condition, if worn out or deteriorated, **replace it**.
2. Check by the appropriate tool that at point p the tension value is between 80 and 85 Hz.

Using the tool F (DENSO BTG-2 or a similar one) shown in the picture, it is possible to check the corresponding value in Newtons, which should be between 350 and 450 N.
Should the correct tool not be available, the belt tension can be checked by applying a force in the direction of arrow G of approx' 10kg on the point p. When correctly tensioned the belt must show a movement of less than 10 mm.
If not adjus it.



5.11

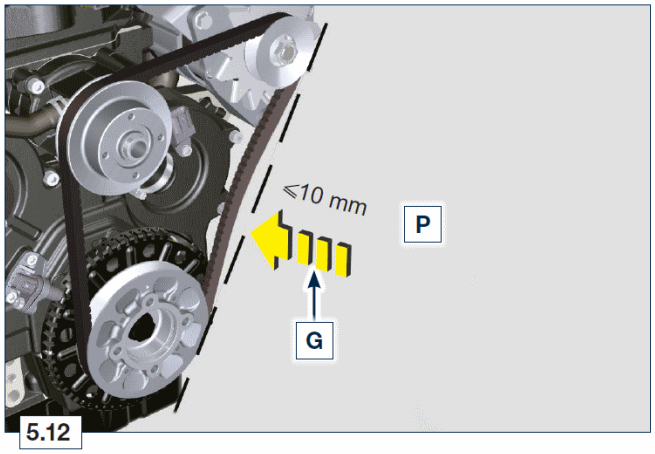
5.9.2 Adjustment

1. Loosen the fastening bolts B and C.
2. Pull the alternator outwards (in direction of the arrow D), to tension the belt.
3. Tension the belt tightening the bolts B and C.
4. Tighten bolts B (tightening torque of 25 Nm) and C (tightening torque of 69 Nm) in sequence with a torque wrench E.
5. Check by the appropriate tool that at point p the tension value is between 80 and 85 Hz.

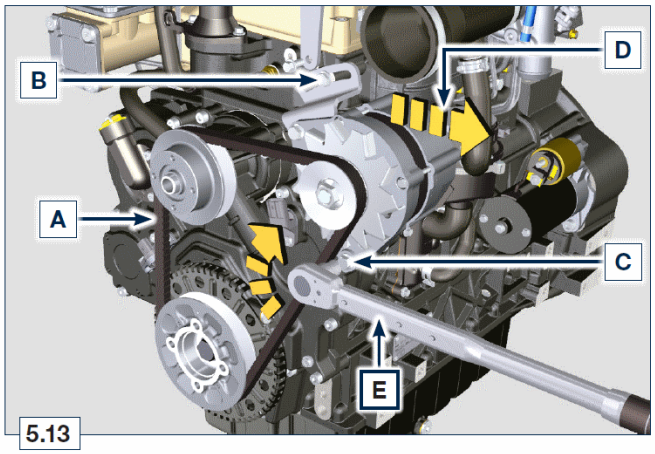
Using the tool F (DENSO BTG-2 or a similar one) shown in the picture, it is possible to check the corresponding value in Newtons, which should be between 350 and 450 N.

Should the correct tool not be available, the belt tension can be checked by applying a force in the direction of arrow G of approx' 10kg on the point p. When correctly tensioned the belt must show a movement of less than 10mm.

Let the engine run for some minutes, then let it cool down at ambient temperature and repeat the operations 2, 3, 4 and 5 in case the belt tension results out of the above mentioned values.



5.12



5.13

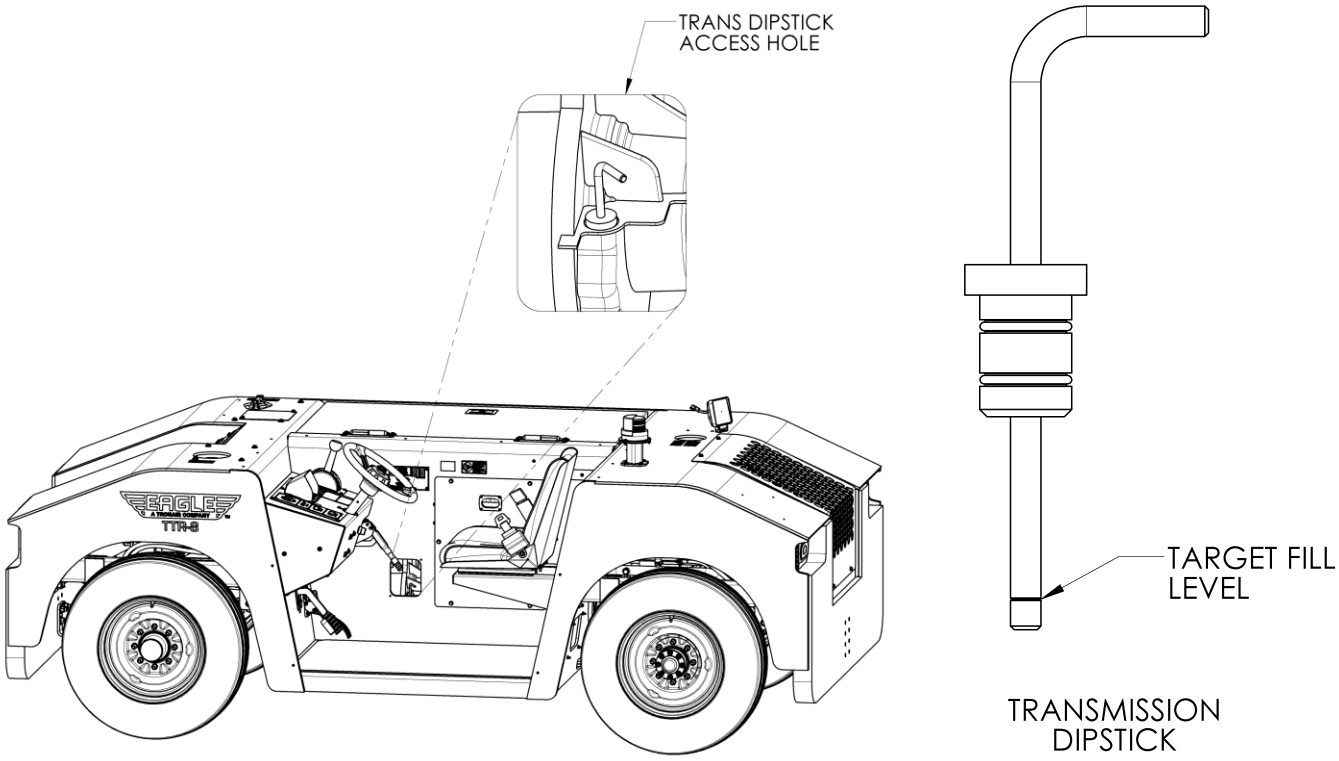
6.12 TRANSMISSION FLUID LEVEL CHECK

Transmission Fluid Check Process:

- Start engine, put transmission in park, and leave engine at idle.
- Remove transmission dipstick access hole cover.
- Check fluid level using the dipstick while engine is idling.
- When checked cold, the fluid level should be between the etched mark and the tip of the dipstick. The ideal fluid level is at the mark, but do not overfill.
- Add fluid if necessary, refer to section 6.2 for proper fluid type.

WARNING!

Overfilling the transmission can lead to premature transmission failure!



7.0 PROVISION OF SPARES

7.1 SOURCE OF SPARE PARTS

Spare parts may be obtained from the manufacturer:

Tronair/Eagle Tugs
1 Air Cargo Pkwy East
Swanton, Ohio 43558 USA

Telephone: (419) 866-6301 or 800-426-6301
Fax: (419) 867-0634
E-mail: sales@tronair.com
Website: www.tronair.com

For Spare Parts, Operations & Service Manuals or Service Needs:
Scan the QR code or visit tronair.com/pages/tronair-information-center

7.2 ORDERING SPARE/SERVICE PARTS

Eagle inventories many of the spare/service parts found in its TTR series tow tractors, and most of these parts can be shipped the day after the order is received. Non-stock parts orders will be shipped as soon as the parts are available.

7.3 RECOMMENDED SPARE PARTS LIST

Description	Part Number	Suggested Replacement Interval
FUEL FILTER CARTRIDGE	K-5305	500 HRS
OIL FILTER CARTRDIGE	K-5303	500 HRS
OIL FILTER SEAL KIT	K-5304	500 HRS
FRONT BRAKE PADS	RD52	AS REQUIRED
REAR BRAKE PADS	FR357	AS REQUIRED
ENGINE BELT	K-5312	AS REQUIRED
PRIMARY AIR FILTER	K-5306	1000 HRS / ANNUALLY
SECONDARY AIR FILTER (SAFETY FILTER)	K-5307	1000 HRS / ANNUALLY
HYDRAULIC FILTER	NVSP-09-018-CA	1000 HRS / ANNUALLY
MIDI FUSE, 23A (RELAY AND FUSE PANEL)	EC-3146-01	AS REQUIRED
MIDI FUSE, 50A (RELAY AND FUSE PANEL)	EC-3146-04	AS REQUIRED
MIDI FUSE, 60A (RELAY AND FUSE PANEL)	EC-3146-05	AS REQUIRED
MIDI FUSE, 100A (RELAY AND FUSE PANEL)	EC-3146-08	AS REQUIRED
MIDI FUSE, 200A (RELAY AND FUSE PANEL)	EC-3146-12	AS REQUIRED
STARTER/GRID HEAT RELAY	7A5012	AS REQUIRED
TURN INDICATOR	Z-9826	AS REQUIRED
HEADLIGHT/SPOTLIGHT	Z-9825	AS REQUIRED
TAIL LIGHT	NVSP-34-010-CA	AS REQUIRED
AMBER STROBE	AE-OPT-0007-LED	AS REQUIRED
MINI FUSE, 2A (POWER DISTRIBUTION BOX)	MIN-2	AS REQUIRED
MINI FUSE, 3A (POWER DISTRIBUTION BOX)	MIN-3	AS REQUIRED
MINI FUSE, 5A (POWER DISTRIBUTION BOX)	MIN-5	AS REQUIRED
MINI FUSE, 10A (POWER DISTRIBUTION BOX)	MIN-10	AS REQUIRED
MINI FUSE, 25A (POWER DISTRIBUTION BOX)	MIN-25	AS REQUIRED
RELAY 35A (POWER DISTRIBUTION BOX)	XL00-81-001-CA	AS REQUIRED
DASH PANEL INDICATOR LAMP	Z-10129	AS REQUIRED
E-STOP	NVSP-14-041-CA	AS REQUIRED
SPOTLIGHT SWITCH	NVSP-14-008-CA	AS REQUIRED
HEADLIGHT SWITCH BASE	NVSP-14-001-CD	AS REQUIRED
HEADLIGHT SWITCH ACTUATOR	NVSP-14-002-CD	AS REQUIRED
TURN SIGNAL SWITCH BASE	NVSP-14-001-CE	AS REQUIRED
TURN SIGNAL SWITCH ACTUATOR	NVSP-14-002-CA	AS REQUIRED
IGNITION SWITCH (KEYED)	NVSP-05-005-CA	AS REQUIRED
IGNITION SWITCH (KEYLESS)	NVSP-05-005-CB	AS REQUIRED
HORN BUTTON	A-TT10-00811	AS REQUIRED
BRAKE PRESSURE SWITCH	H-4286	AS REQUIRED

8.0 IN SERVICE SUPPORT

Contact Eagle Tugs for technical services and information.

8.1 TECHNICAL ASSISTANCE

When addressing a repair procedure or operational problem, please remember that Eagle technical support is only a phone call away. Eagle technicians are available to assist you in vehicle diagnostics and recommended repair procedures. We encourage you to use this service to reduce machine down-time and to gain a better understanding of proper repair procedures.

9.0 GUARANTEES/LIMITATION OF LIABILITY

9.1 EAGLE WARRANTY

Coverage Overview

The Eagle Warranty covers all new Eagle vehicles. Eagle, a Tronair company, warrants that these vehicles will be free from defects in material and workmanship for the period described based on the warranty period of the vehicles listed below. The warranty period begins on the date of shipment to the original purchaser. Coverage extends for the time period or operating hours specified for each vehicle series below, whichever limit is reached first. This warranty is non-transferable and applies only to the original purchaser of the vehicle.

Coverage by Vehicle Series

The Eagle Warranty provides 3-year or 3,000-hour coverage, whichever occurs first, for TT-series, TTR-series, eTT-series, eJP-series, XM-series, XL-series, and USATS vehicles when used in aviation applications. For non-aviation/industrial applications, the Eagle Warranty provides 1-year or 2,000-hour coverage, whichever occurs first, regardless of vehicle series. This includes MTT-series, STT-series, RTT-series, Bobtails, Transit Pro, and any aviation-series vehicle used in non-aviation/industrial applications. Bobtails are covered under Ford Motor Company's standard warranty (three-year/36,000-mile bumper-to-bumper and five-year/60,000-mile powertrain). Eagle provides supplementary 1-year/2,000-hour warranty coverage for Eagle-specific components not covered by Ford's warranty.

Exclusions

This warranty does not apply to any Eagle vehicle or component part(s) that have damage caused by: misuse of the vehicle, accidents, collision or objects striking the vehicle, vandalism, fire, explosion or water damage, using contaminated or improper fuel/fluids, customer-applied chemicals to painted surfaces, improper handling or application, or maintenance neglect including lack of lubricants or fluids. This warranty does not extend to Eagle vehicles and/or parts which have been repaired or altered outside of Eagle's plant or the facility of an Authorized Service Representative without the permission of Eagle.

Any modification to the electrical system must receive prior written approval from Eagle. Unauthorized electrical modifications will void warranty coverage for electrical components only.

This warranty does not apply to routine maintenance or wearable parts of the Eagle vehicle such as: tires, brake pads or shoes, ball joints, kingpins, u-joints, wheel bearings, filters, seals, spark plugs, hoses, belts, light bulbs, batteries (diesel and gas vehicles), fuses, or similar items.

Batteries, battery chargers, snowplows, and Transit Pro options are warranted directly to the user by their respective manufacturers and not by Eagle or an Authorized Service Representative.

This warranty does not cover or provide credit for the following: vehicle rental or other substitute equipment; lodging; loss of time, income, sales or profits; loss of the use of vehicle; telephone calls or communication expense; lift truck; storage fees; injury or death to persons or damage or destruction of property; or consequential, incidental or punitive damages.

Warranty Claim Procedure

When a warranty situation arises, it is essential that the customer contact Tronair Product Support at productsupport@tronair.com or +1 (419) 861-2560. The customer will need to provide Eagle with the vehicle serial number and operating hours. A representative will analyze the problem and determine the next steps. In many cases, technical support personnel will be able to analyze the problem and recommend a solution that will solve the problem and reduce downtime. If further service is required, a customer service representative will work with customer personnel to arrange a service provider and/or will send parts to your facility for the repair as quickly as possible. The determination of a warrantable claim will be at the sole discretion of Tronair.

Notice and Remedies

Notice of any claimed defect must be given to Eagle within the warranty period and within a reasonable time after such defect is discovered, not to exceed thirty (30) days. Liability under this warranty is limited to either replacing or repairing, at Eagle's election, any part or parts deemed defective after examination by Eagle or an Authorized Service Representative. Eagle reserves the right to use remanufactured parts as replacements in warranty claims.

9.1 EAGLE WARRANTY *(continued)*

Third-Party Inspection and Return Requirements

At Eagle's election, any part replaced under warranty as defective can be sent out for third-party inspection. If the part is not found to be defective, or abuse was the cause of the failure, all associated costs related to the warranty claim may be charged to the customer. All parts returned to Eagle by a customer must be received without further damage. If returned items are not properly packaged for return shipping to Eagle or an Authorized Service Representative via prepaid transportation, the customer will be charged for the full value of the item that was damaged upon return. This warranty does not extend beyond its original term for any Eagle vehicle or part replaced or repaired under warranty. Any and all disputes or disagreements will be negotiated in good faith by both parties.

Labor Allowance

A labor allowance may be issued upon request at Tronair's discretion. Allowable labor hours and per-hour labor rate will be determined by Eagle according to reasonable automotive standards.
Limitation of Warranties

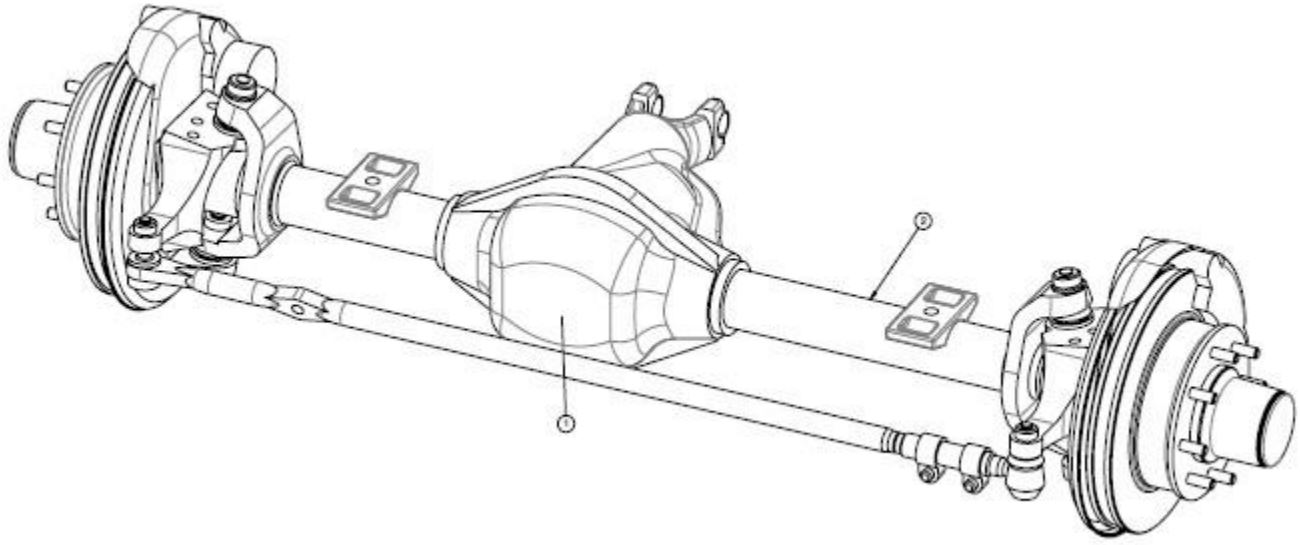
Except as set forth above, all warranties, conditions, representations, indemnities and guarantees, express or implied, whether arising by statute, custom of trade, or under oral or written statements made by or on behalf of Eagle in negotiations with customer, distributor, dealer, or any representative, are hereby waived and excluded, and no liability shall attach to Eagle, either in contract or in tort, or strict liability in tort, for any damage to property, loss of profits, damages, costs, charges, liability or expenses, whether direct or indirect, consequential or otherwise, which arise out of or in connection with the sale or use of any Eagle vehicle or the supply of services.
Definitions

Authorized Service Representative: Service providers approved by Eagle to perform warranty repairs. Contact Tronair Product Support for a list of Authorized Service Representatives in your area.

Eagle reserves the right to modify this warranty without prior notice.

10.0 DRIVETRAIN

10.1 FRONT AXLE SUB

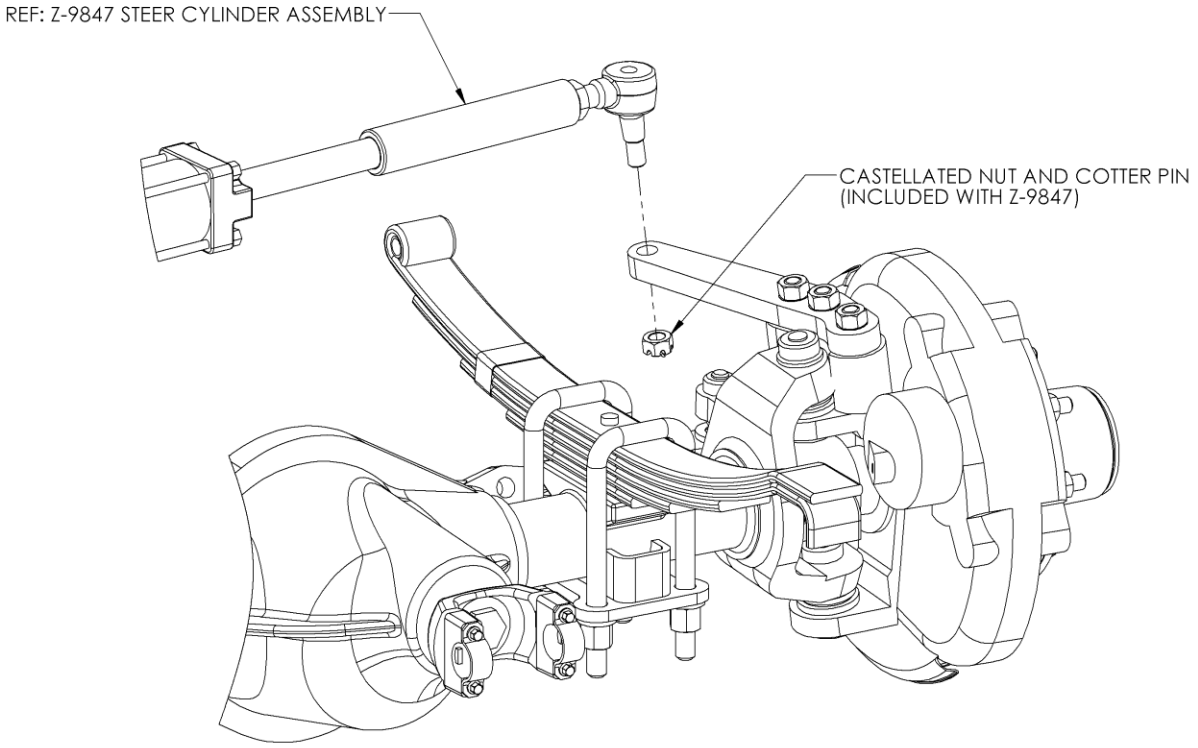


Parts List – Front Axle Sub

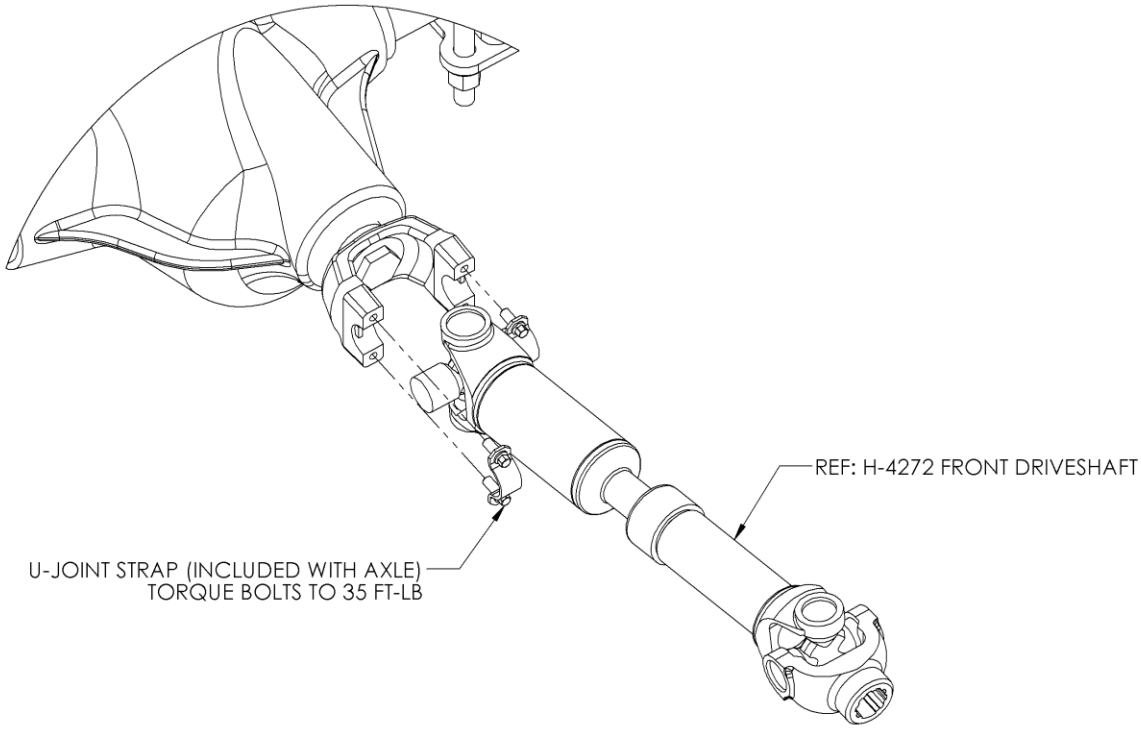
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	L-1016	80/90 WEIGHT OIL (NOT SHOWN)	0.63
2	H-4235-MOD	FRONT DRIVE-STEER AXLE	1

10.2 FRONT AXLE

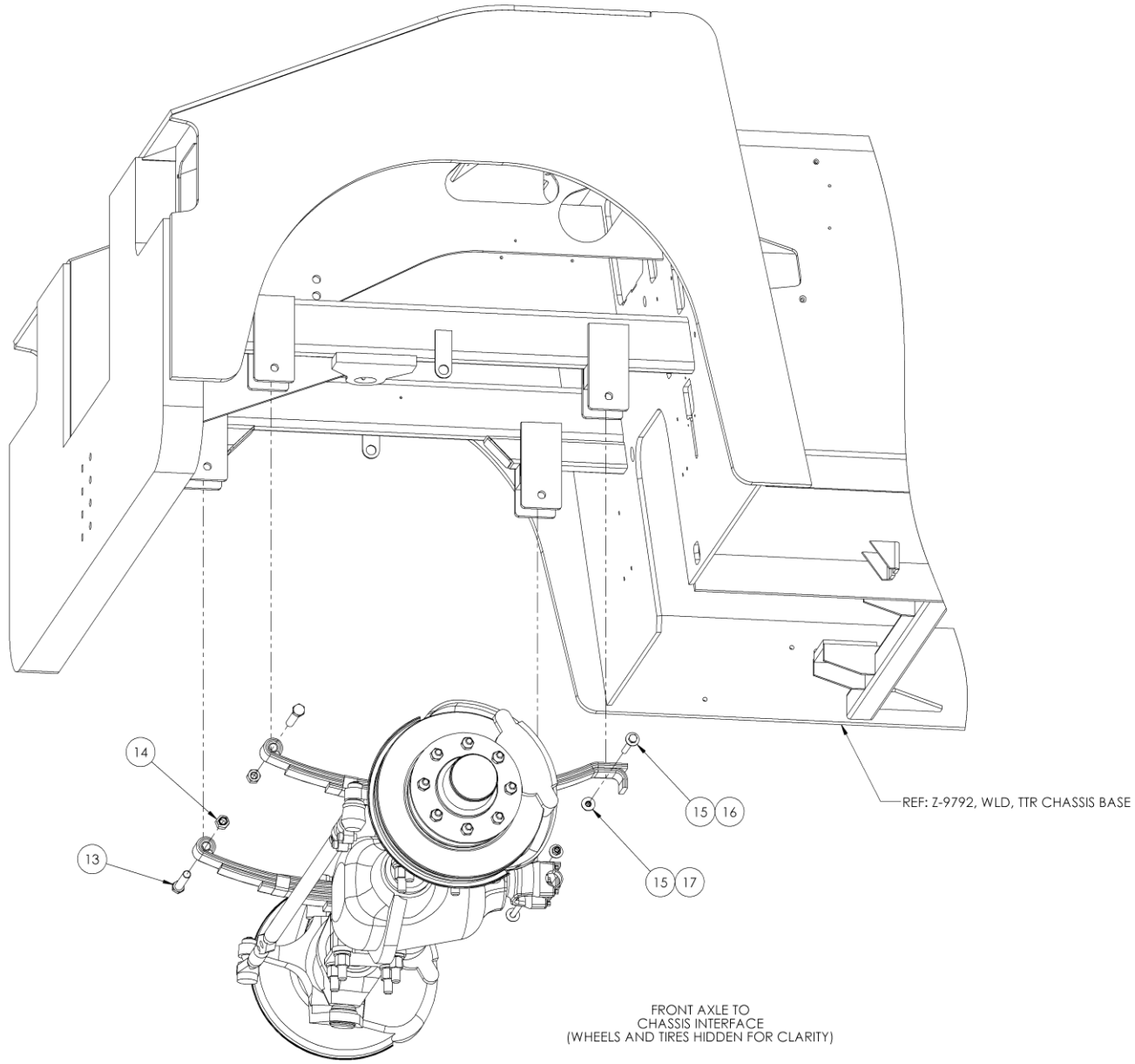


FRONT AXLE TO
STEERING CYLINDER INTERFACE
(WHEEL AND TIRE HIDDEN FOR CLARITY)

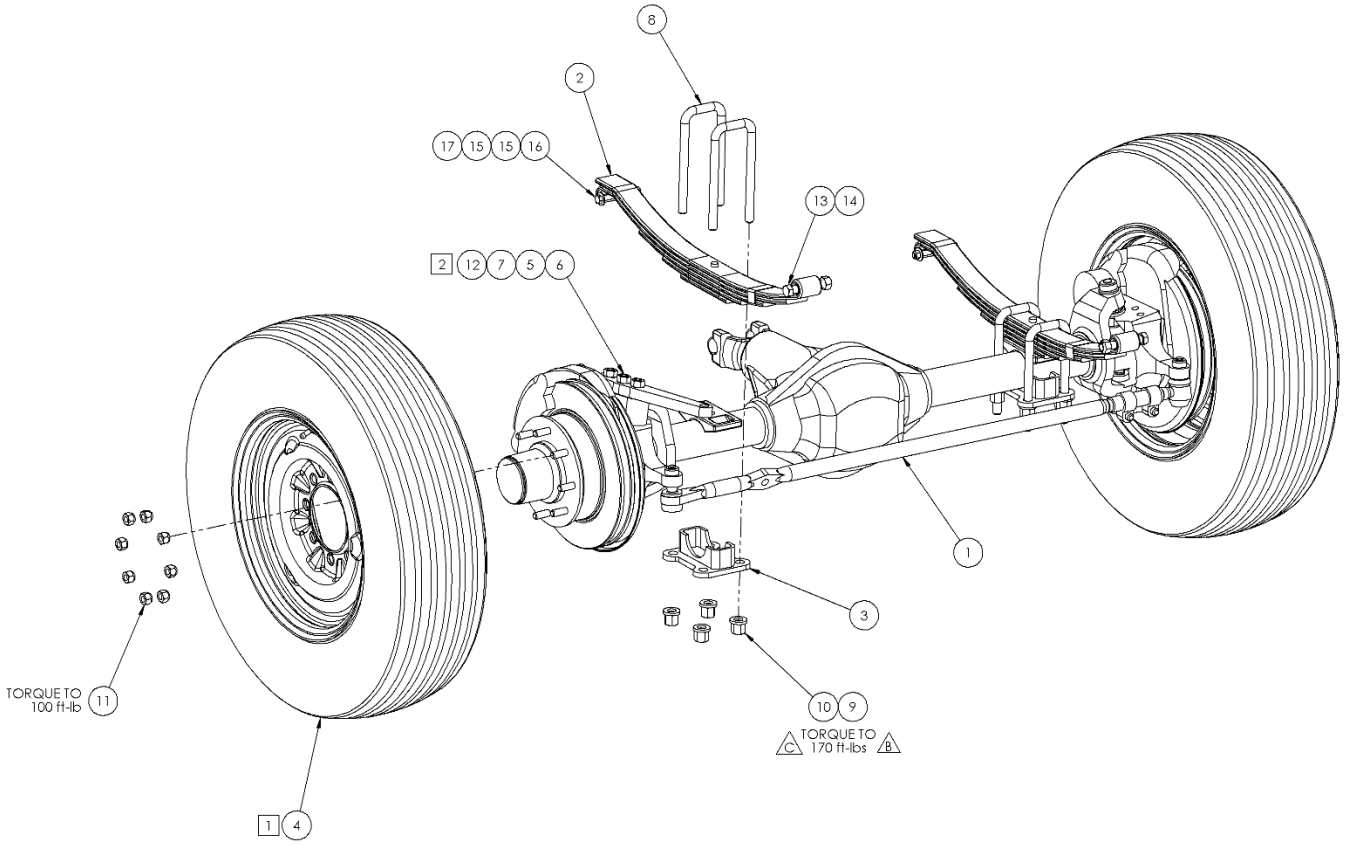


FRONT AXLE TO
DRIVESHAFT INTERFACE

10.2 FRONT AXLE *(continued)*



10.2 FRONT AXLE *(continued)*

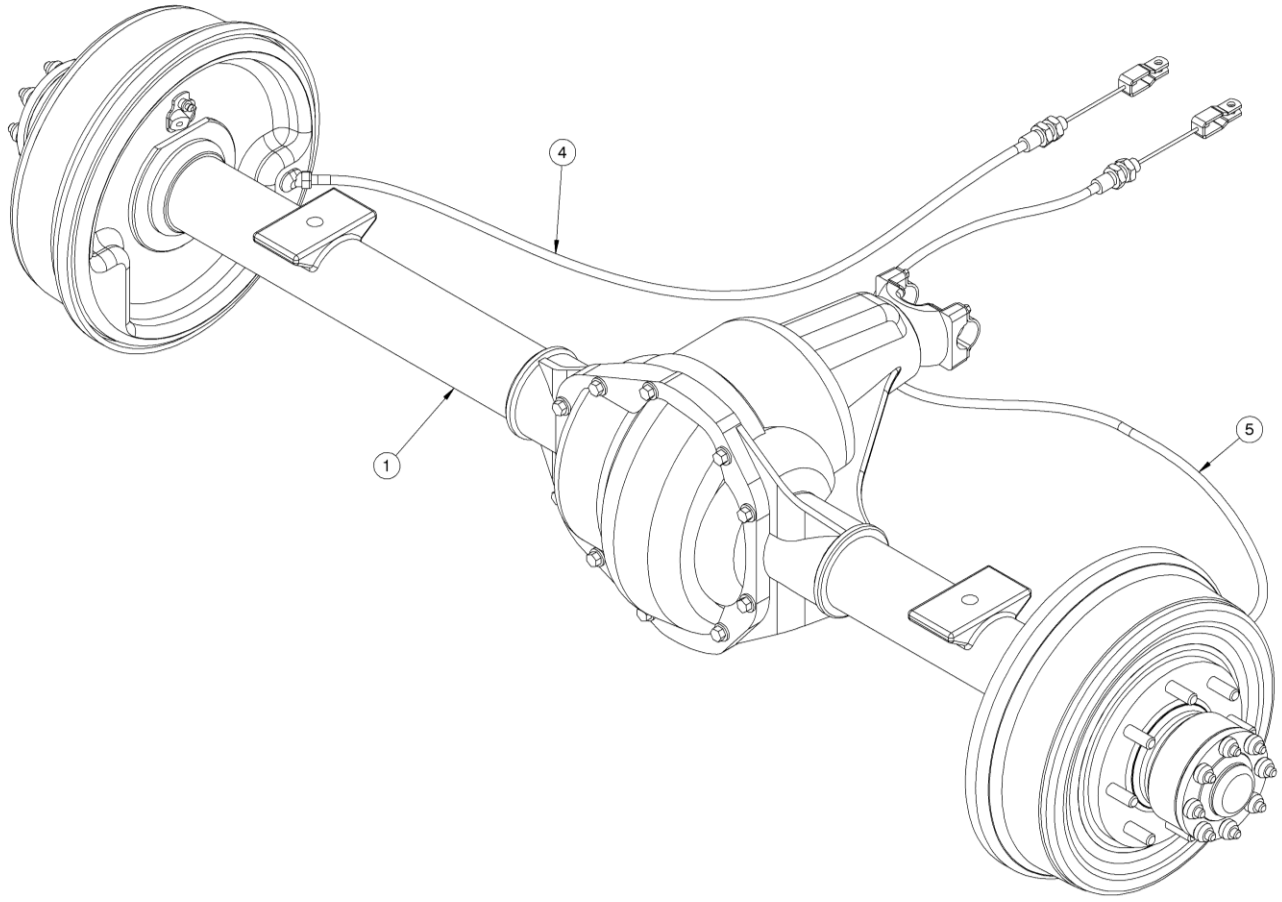


Parts List – Front Axle

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	N/A	FRONT AXLE SUB	1
2	A-TT4-00116	LEAF SPRING	2
3	TT08-04-003-SA	AXLE SADDLE CLAMP, TT4-8	2
4	Z-9815	WHEEL AND TIRE ASSEMBLY	REF
5	Z-9814	STEERING ARM MACHINED	1
6	A-TT8-00115	STUD - STEERING ARM	3
7	3965138	BUSHING (STEERING ARM)	3
8	TT08-04-004-CA	U-BOLT ASSY 7.625 LG	4
9	A-TT4-00366	WASHER, AXLE U-BOLT	8
10	A-TT4-00365	NUT, AXLE U-BOLT	8
11	A-TT4-00123	LUG NUT 1/2-20 X 60 DEG	16
12	G-1632-1097	NUT, 9/16-18 HEX GR 8	3
13	G-1420-121534	BOLT, 9/16-18 X 3.5" HEX HD GR 8	2
14	G-1727-1210	NUT, 9/16-18 TOP LOCK ZINC	2
15	G-1250-1070W	FLATWASHER, 3/8 WIDE	4
16	G-1420-107034	BOLT, 3/8-16 X 3.5" HEX HD GR 8	2
17	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	2

10.3 REAR AXLE SUB



Parts List – Rear Axle Sub

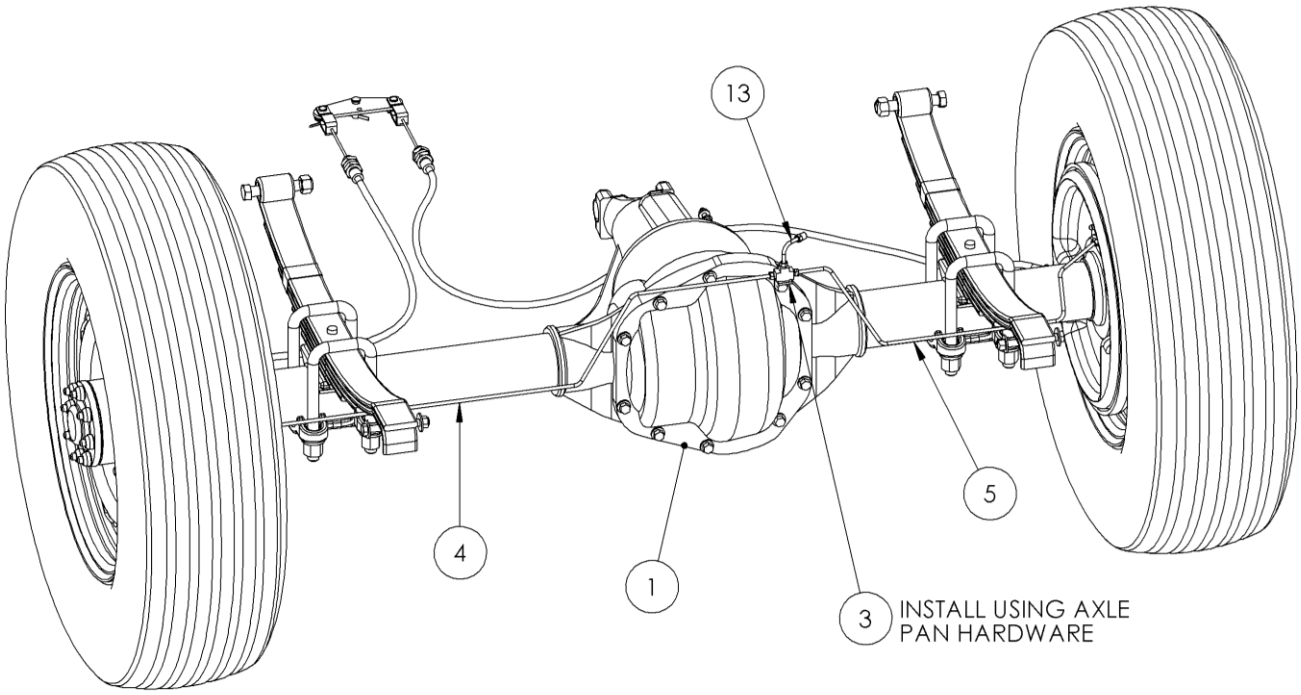
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

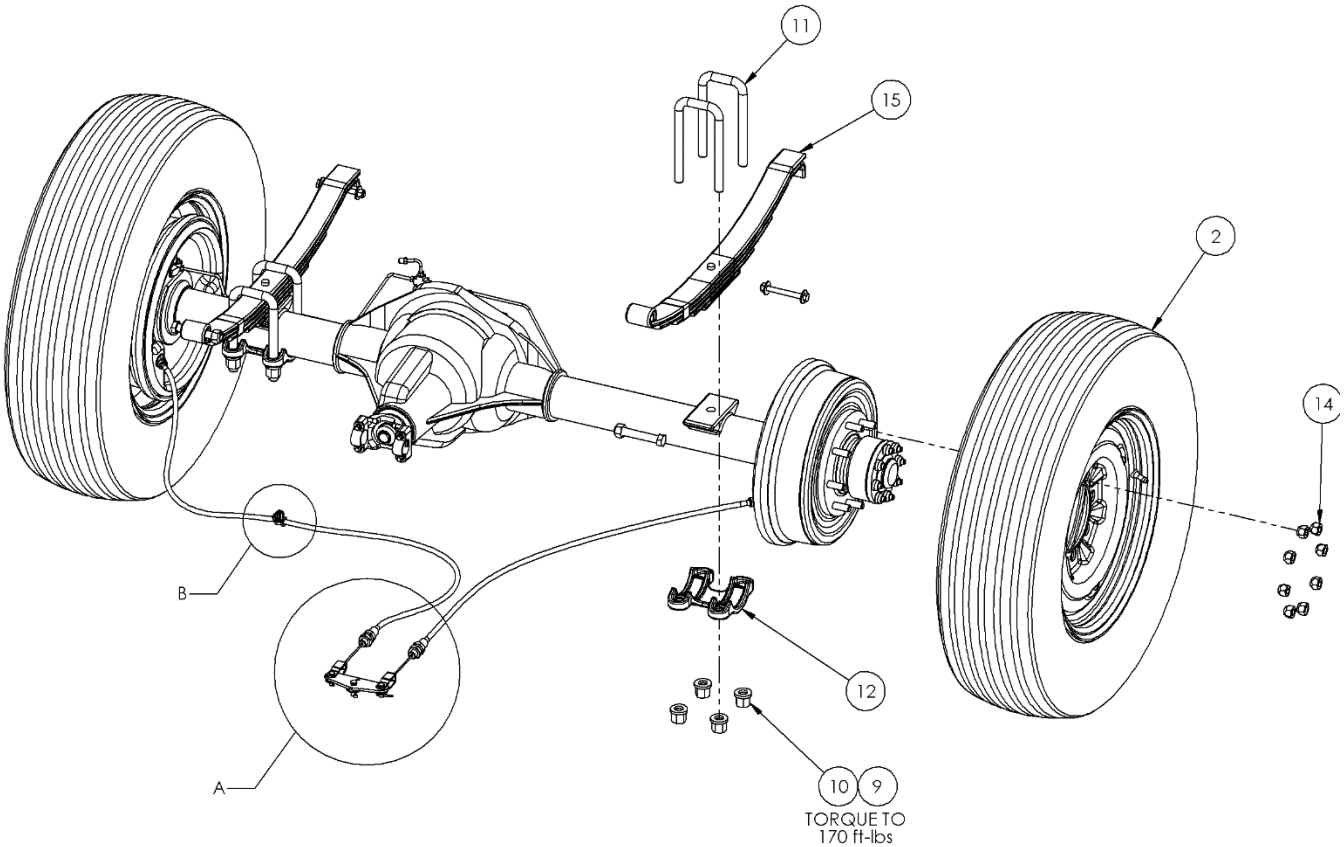
Item	Part Number	Description	Qty
1	H-4236-LS	DANA 60 REAR AXLE, LIMITED SLIP	1
2	L-1016	80/90 WEIGHT OIL (NOT SHOWN)	0.125
3	39697	AXLE GASKET 60 & 70 (NOT SHOWN)	2
4	A-TT4-00151	CABLE PARKING BRAKE SHORT	1
5	A-TT4-00150	CABLE PARKING BRAKE LONG	1
6	AE-OPT-0095-A	LIMITED SLIP FRICTION MODIFIER	1

*Qty of 2 for units built 07/2023 and later

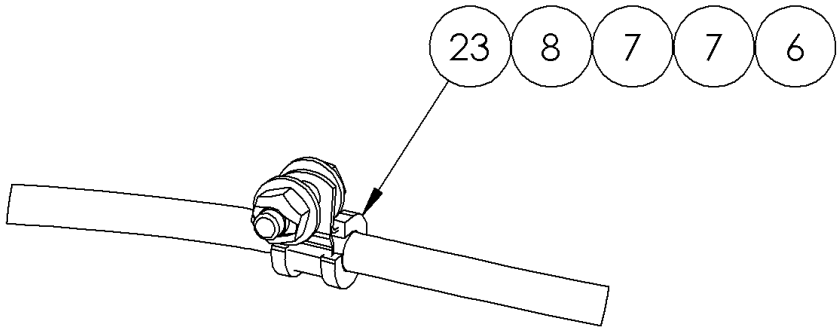
*Qty of 1 for units built prior to 07/2023

10.4 REAR AXLE

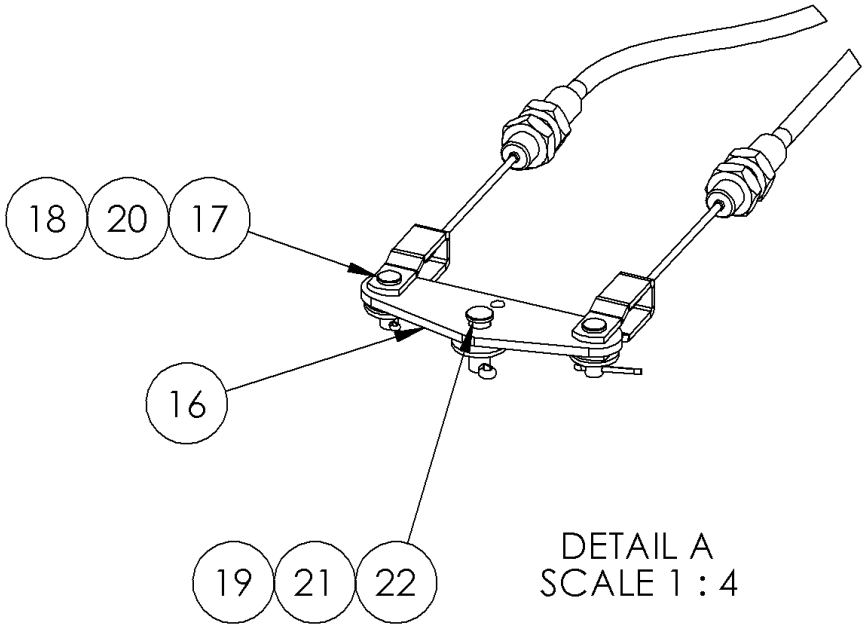




10.4 REAR AXLE *(continued)*

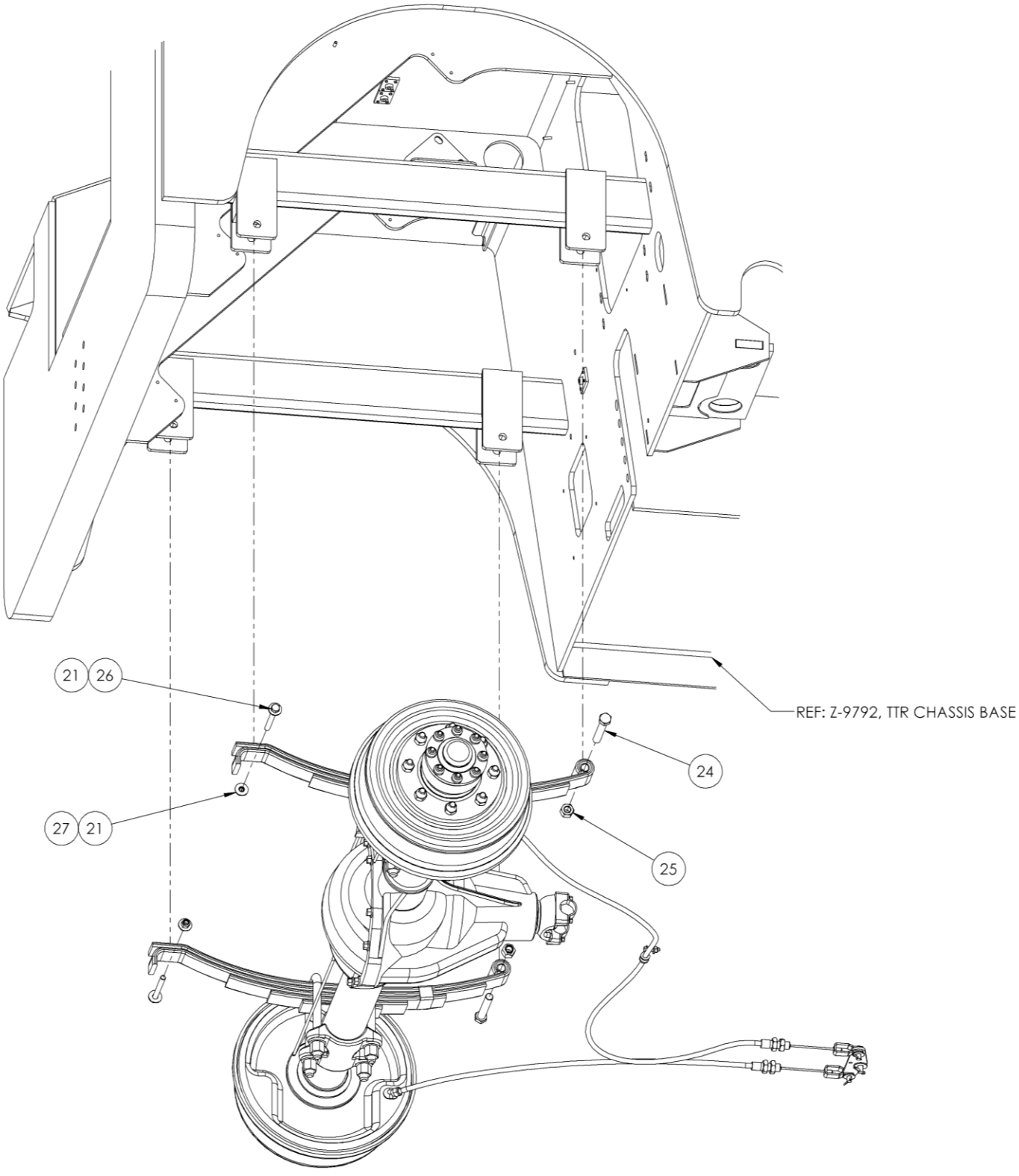


DETAIL B
SCALE 1 : 2

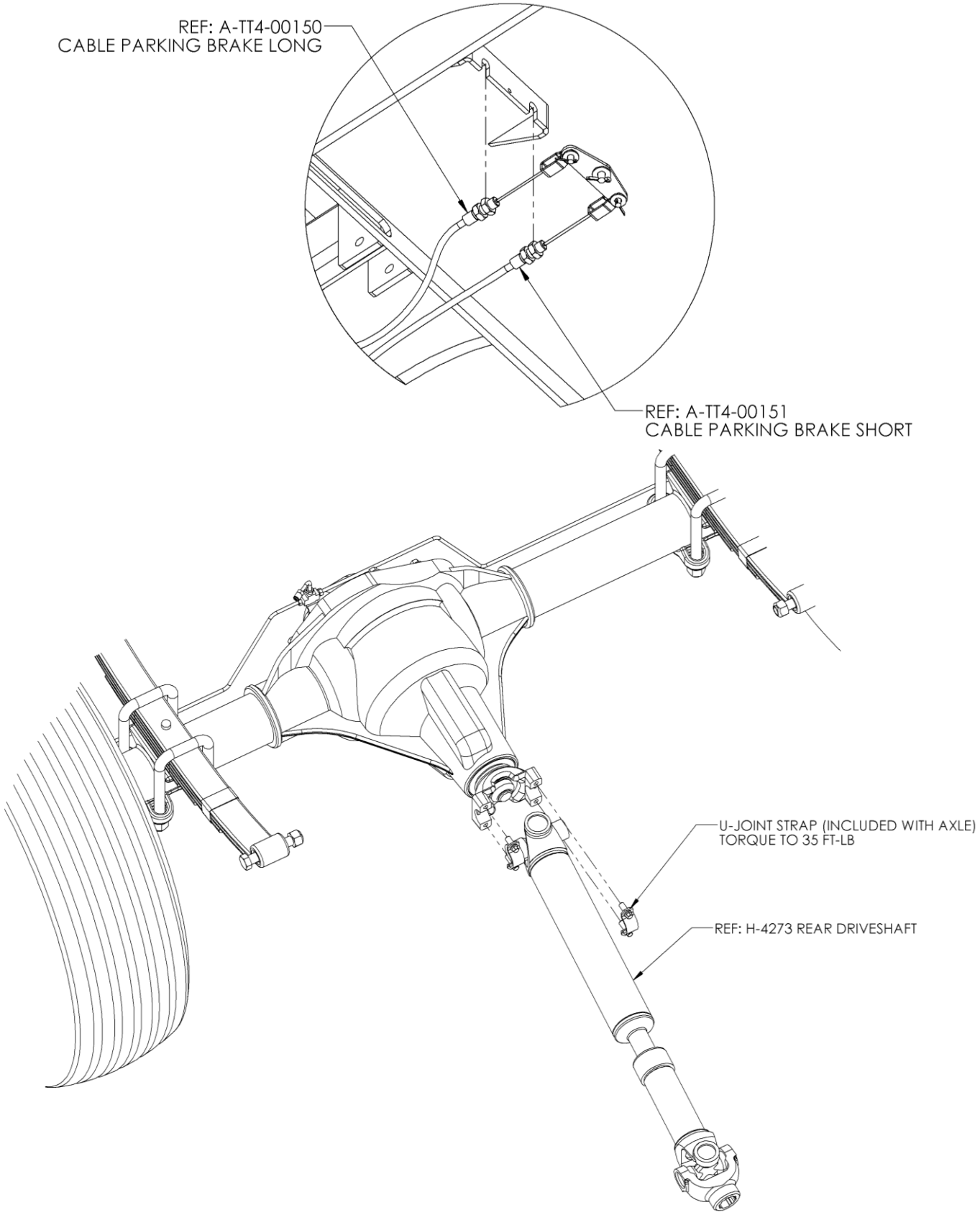


DETAIL A
SCALE 1 : 4

10.4 REAR AXLE *(continued)*



10.4 REAR AXLE *(continued)*



REAR AXLE TO
DRIVESHAFT INTERFACE

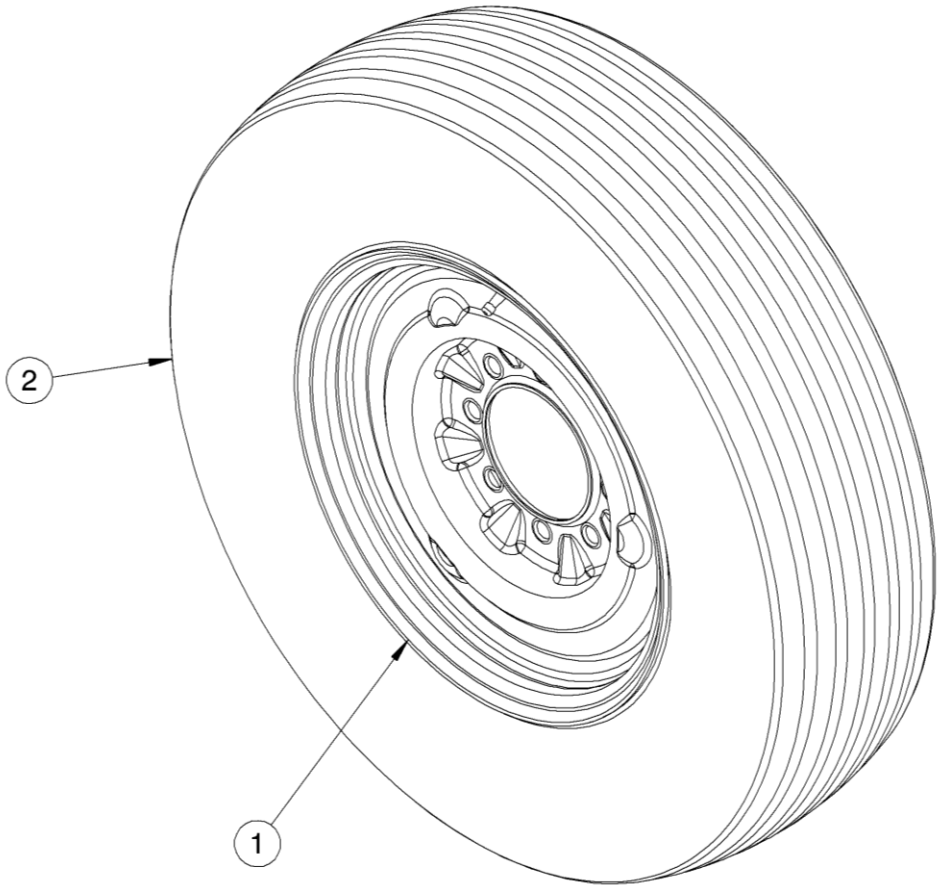
10.4 REAR AXLE *(continued)*

Parts List – Rear Axle

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	N/A	REAR AXLE SUB, LIMITED SLIP	1
2	Z-9815	WHEEL AND TIRE ASSEMBLY	REF
3	N-3068	BRAKE T FITTING, MODIFIED	1
4	H-4285	REAR LH BRAKE LINE	1
5	H-4284	REAR RH BRAKE LINE	1
6	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	1
7	G-1250-1050N	FLATWASHER, 1/4 NARROW	2
8	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	1
9	A-TT4-00366	WASHER, AXLE U-BOLT	8
10	A-TT4-00365	NUT, AXLE U-BOLT	8
11	A-TT4-00364	U-BOLT ASSY 6.625 LG	4
12	A-TT4-00363	AXLE SADDLE CLAMP	2
13	A-TT4-00167	BRAKE LINE SHORT ELBOW	1
14	A-TT4-00123	LUG NUT 1/2-20 X 60 DEG	16
15	A-TT4-00116	LEAF SPRING	2
16	J-6802-00	BRKT, PARK BRAKE EQ (P)	1
17	G-1302-03	PIN, CLEVIS, 5/16 X 0.94" LG.	2
18	G-1301-01	PIN, 3/32 X 1 LG COTTER	2
19	G-1301-04	PIN, 5/32 X 1.0" LG. COTTER	1
20	G-1250-1060W	FLATWASHER, 5/16 WIDE	2
21	G-1250-1070W	FLATWASHER, 3/8 WIDE	5
22	G-1302-18	PIN, 3/8 X 1.00 LG CLEVIS	1
23	H-3521-01	CLAMP, CUSHIONED LOOP 3/8"	1
24	G-1420-121534	BOLT, 9/16-18 X 3.5" HEX HD GR 8	2
25	G-1727-1210	NUT, 9/16-18 TOP LOCK ZINC	2
26	G-1420-107034	BOLT, 3/8-16 X 3.5" HEX HD GR 8	2
27	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	2

10.5 WHEEL AND TIRE

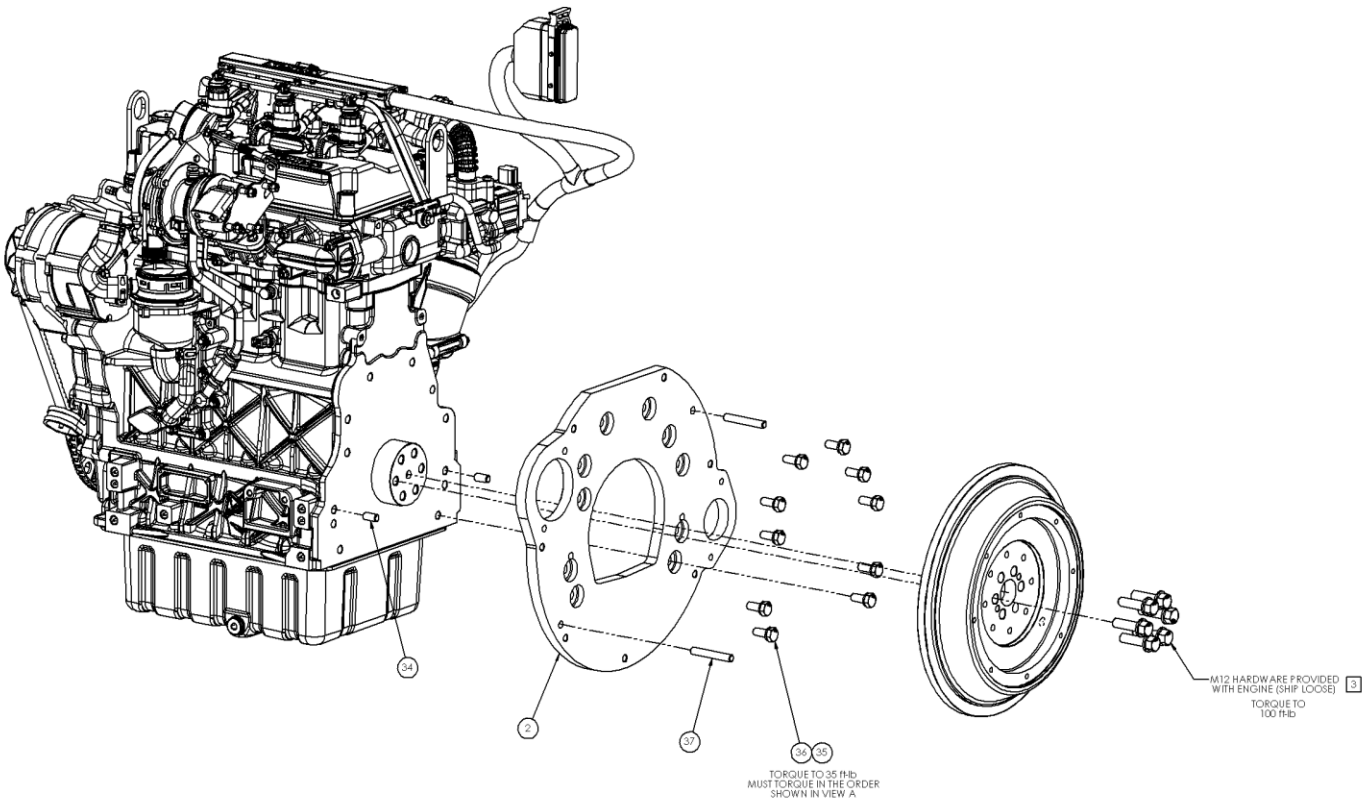


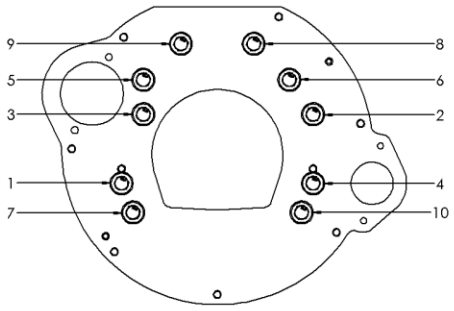
Parts List – Wheel and Tire

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	A-TT4-00122-1	STEEL WHEEL, 16X6 - 8-6.5	1
2	A-TT8/2-00121-1	TIRE, LT225-75R16 LR E	1

10.6 ENGINE ASSEMBLY

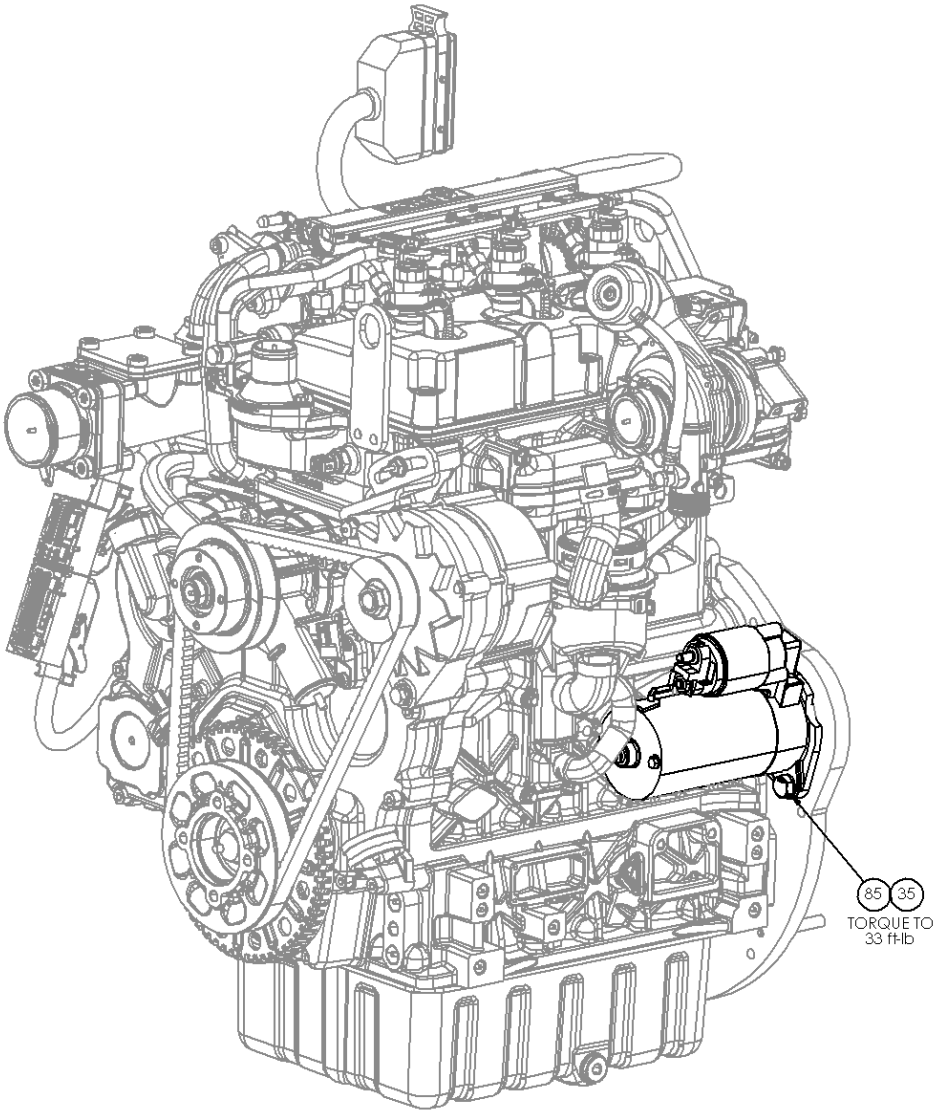




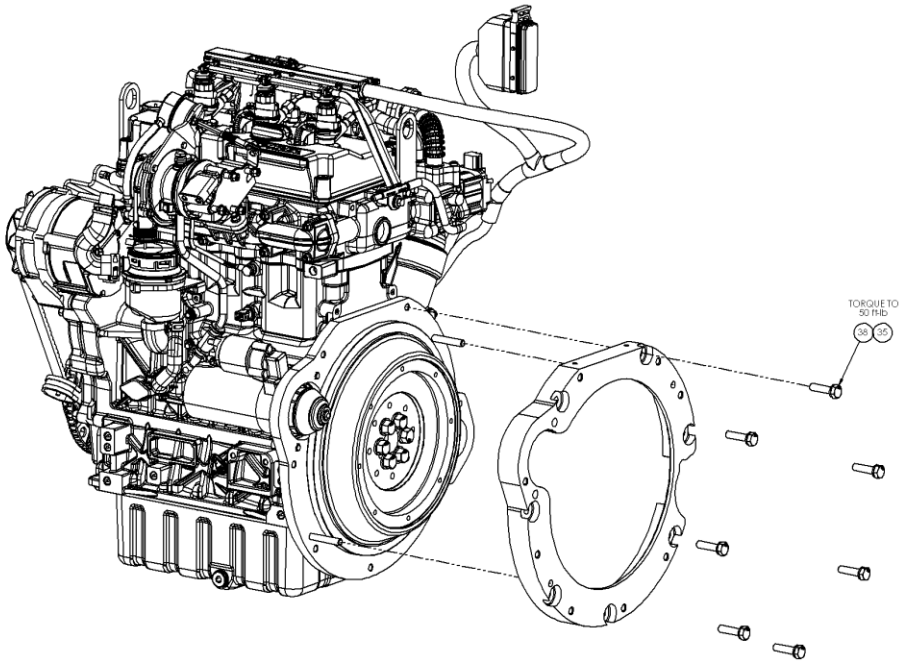
VIEW A
ENGINE PLATE
BOLT TORQUE ORDER

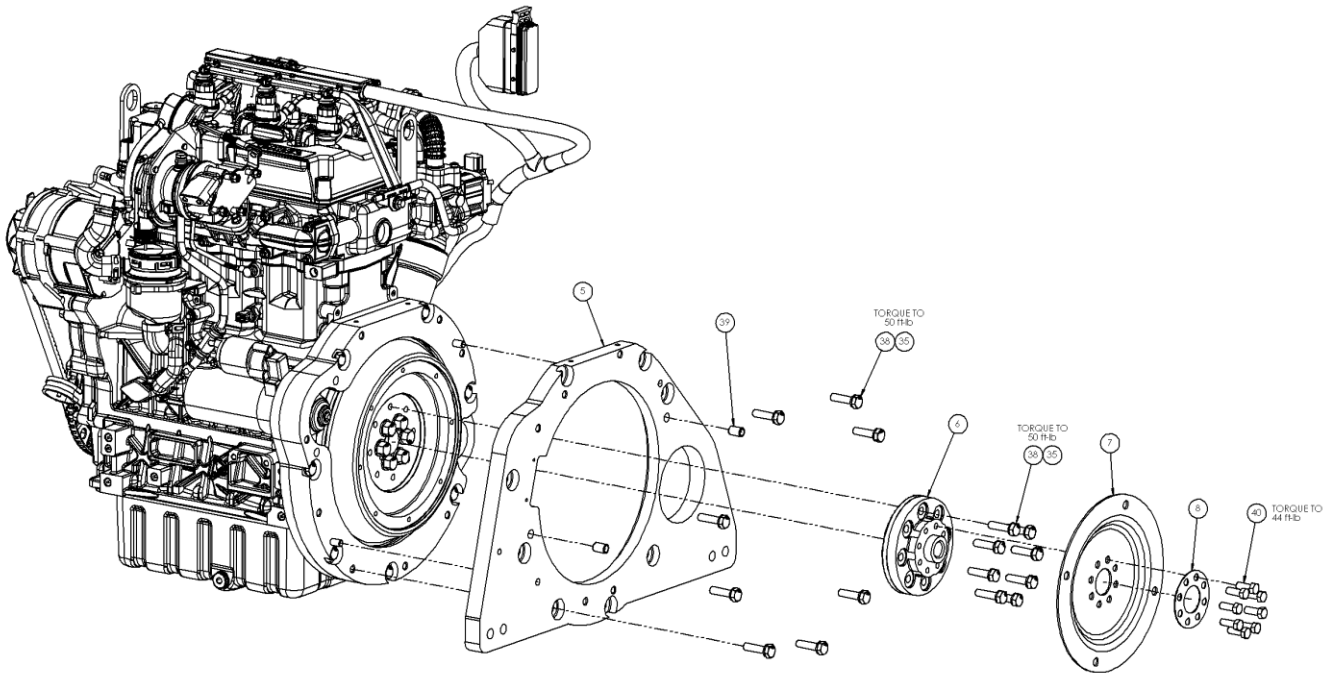
3 INSTALL WITH LOCTITE RED THREAD LOCKER OR EQUIVALENT

10.6 ENGINE ASSEMBLY *(continued)*

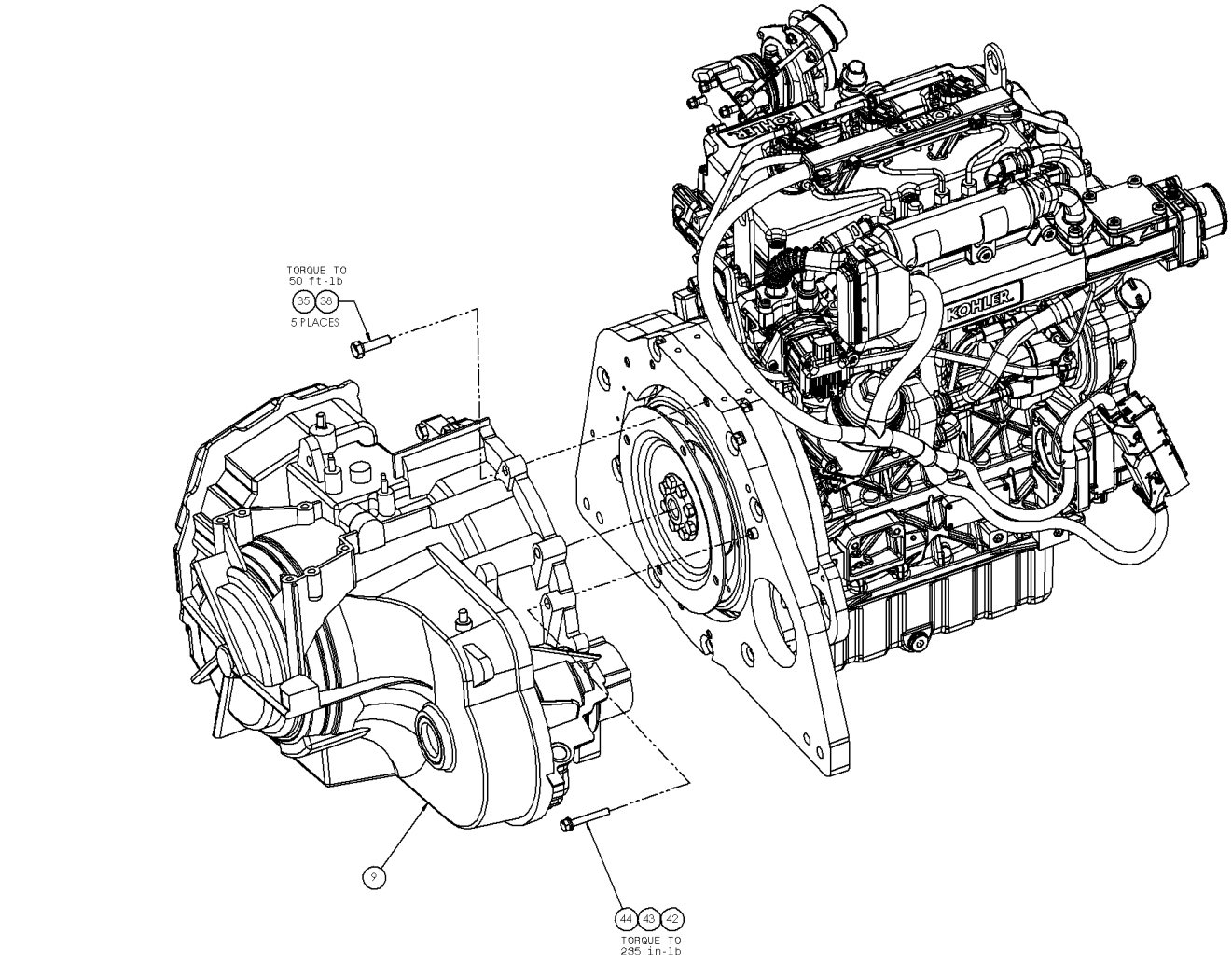


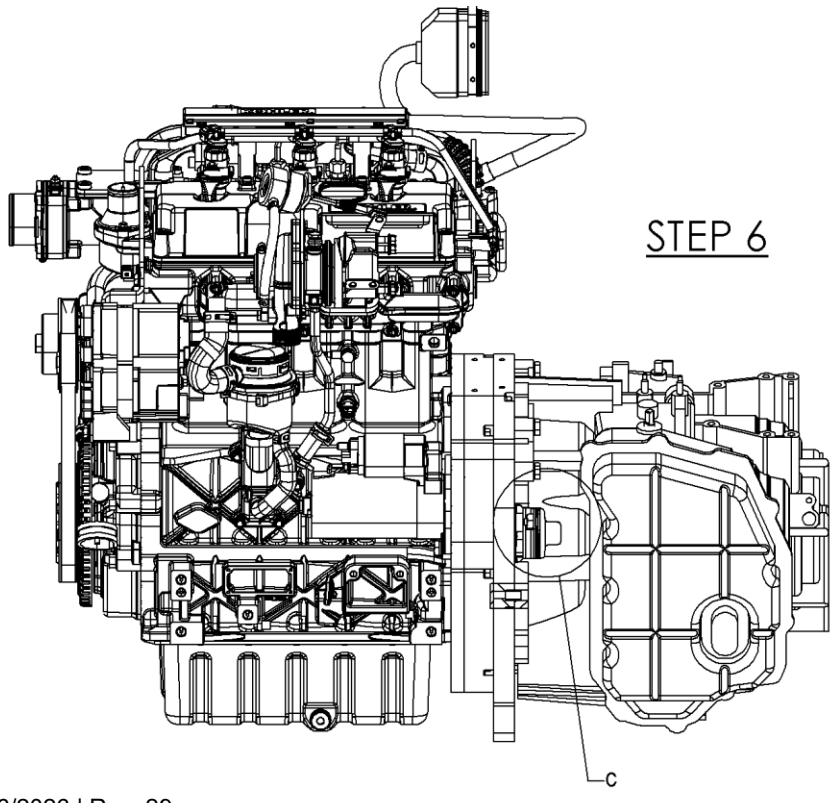
10.6 ENGINE ASSEMBLY *(continued)*



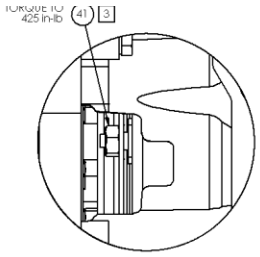


10.6 ENGINE ASSEMBLY *(continued)*



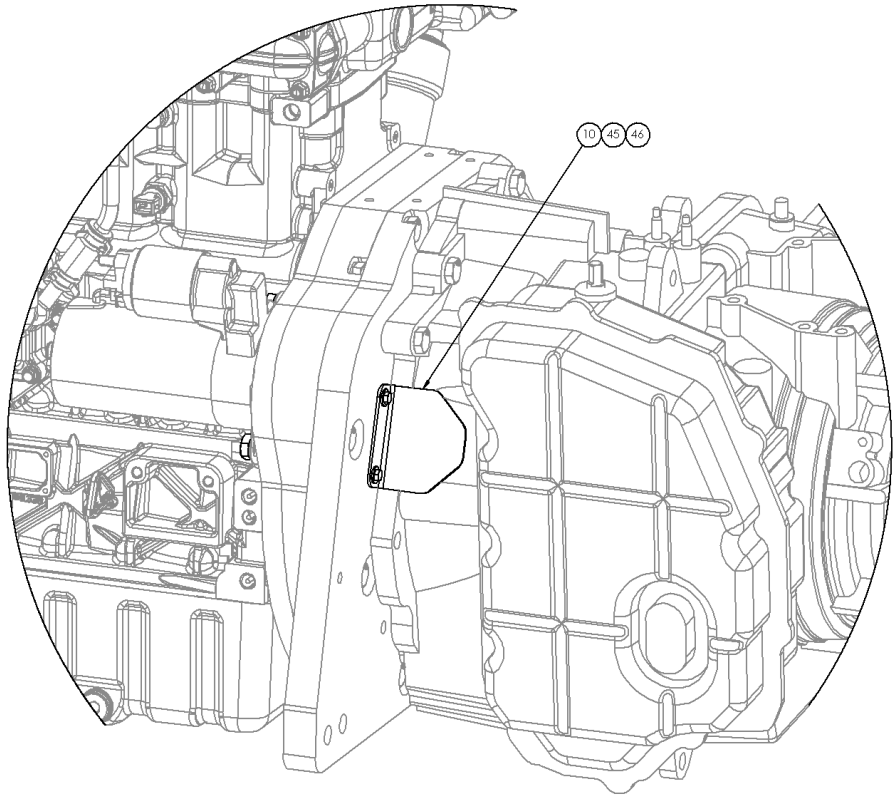


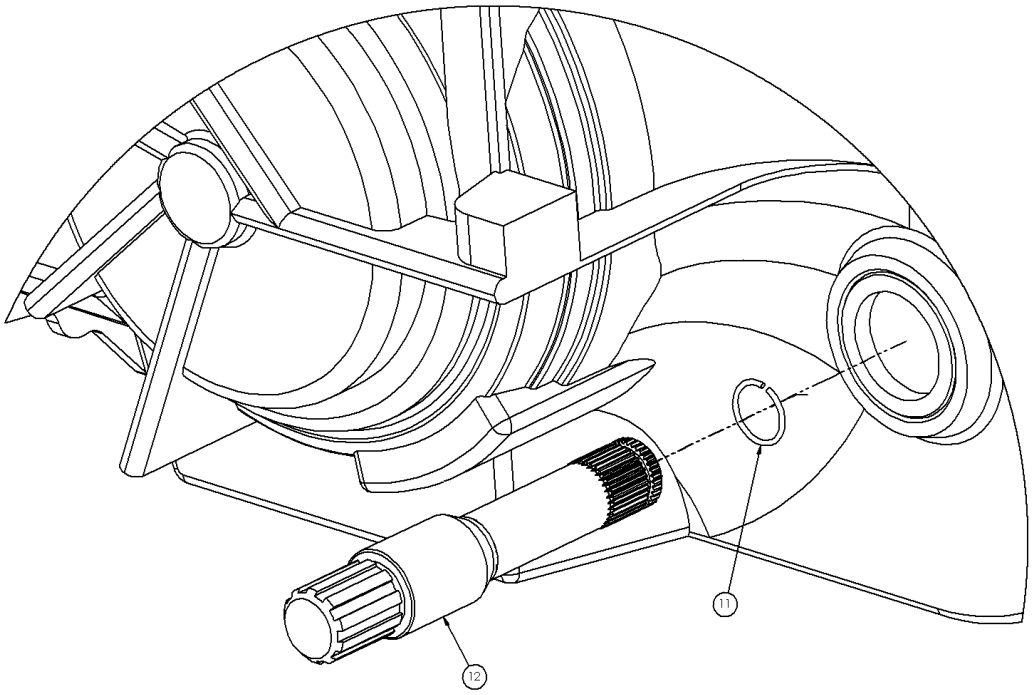
STEP 6



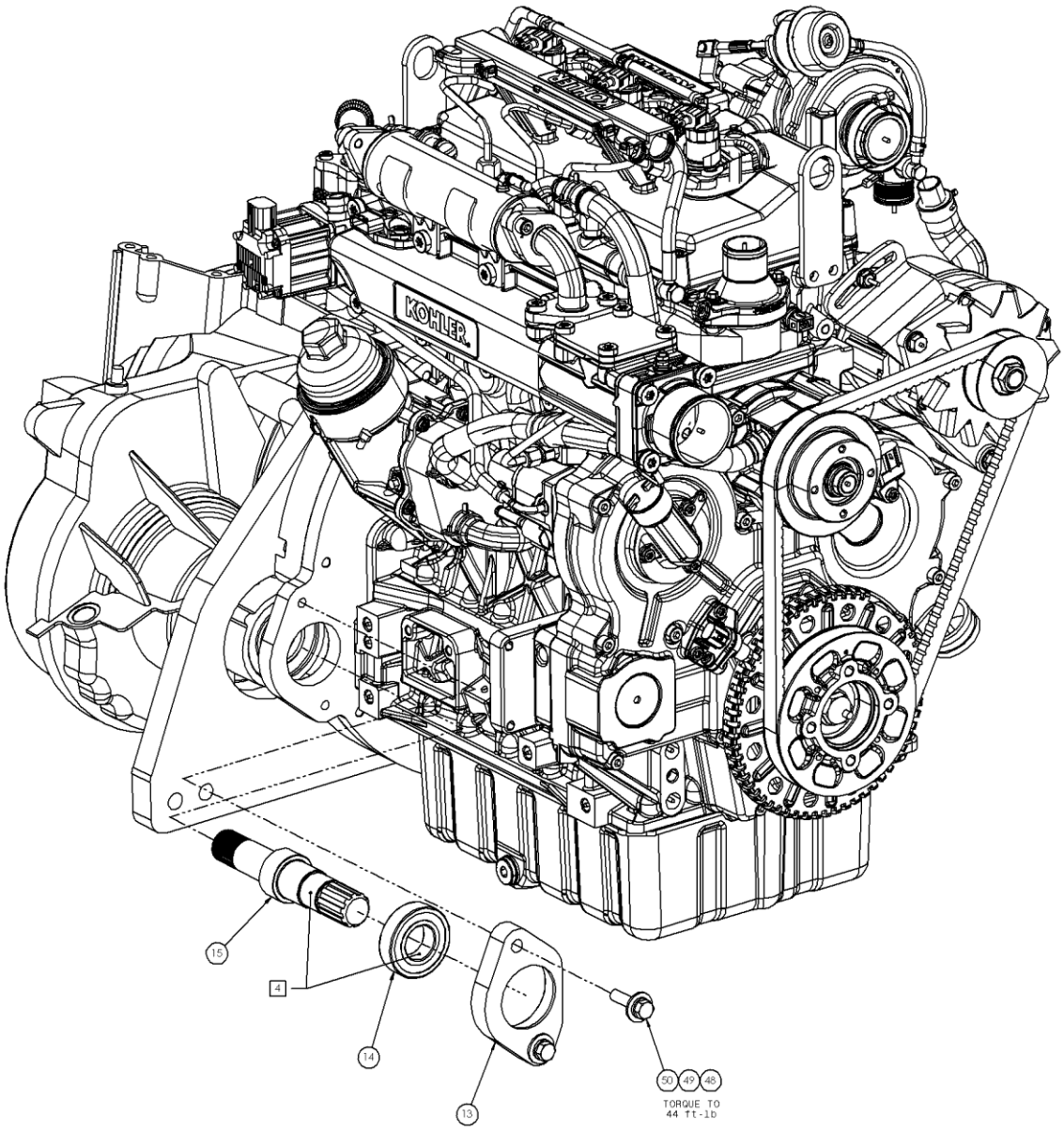
DETAIL C
SCALE 2 : 3

10.6 ENGINE ASSEMBLY *(continued)*



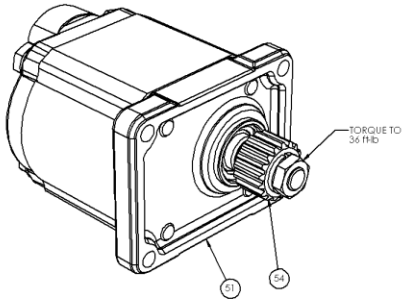


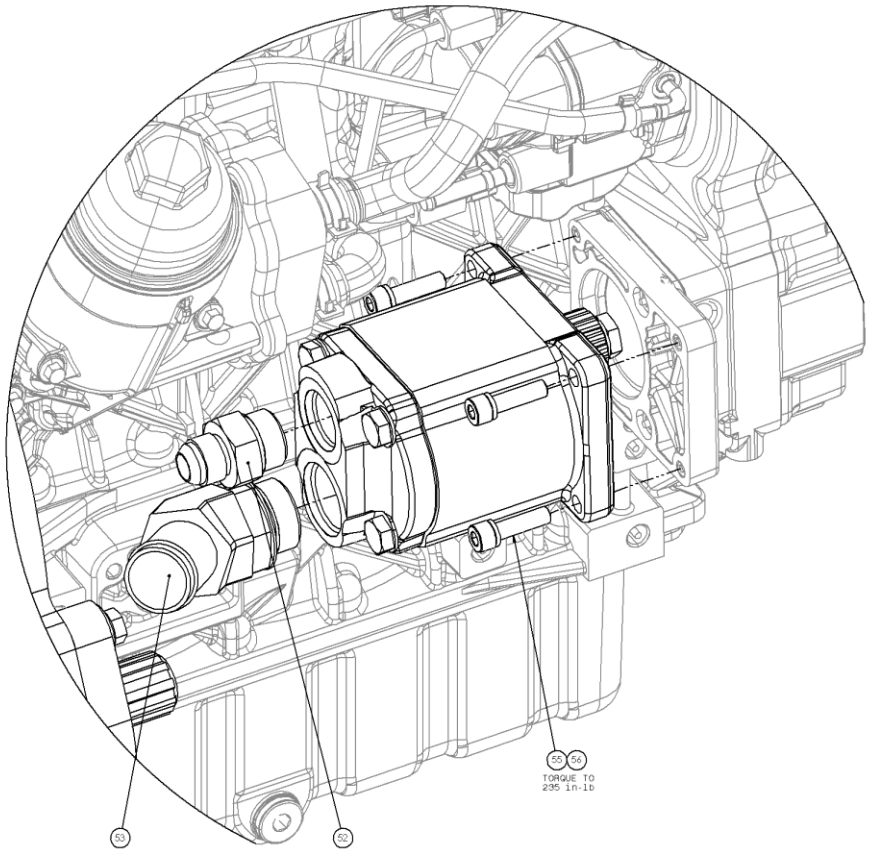
10.6 ENGINE ASSEMBLY *(continued)*

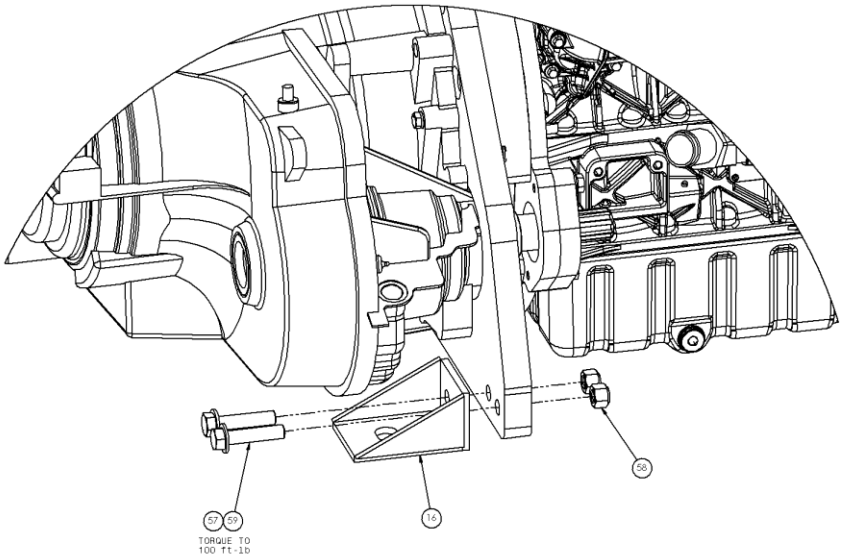


4 INSTALL WITH LOCTITE BEARING RETAINING COMPOUND OR EQUIVALENT

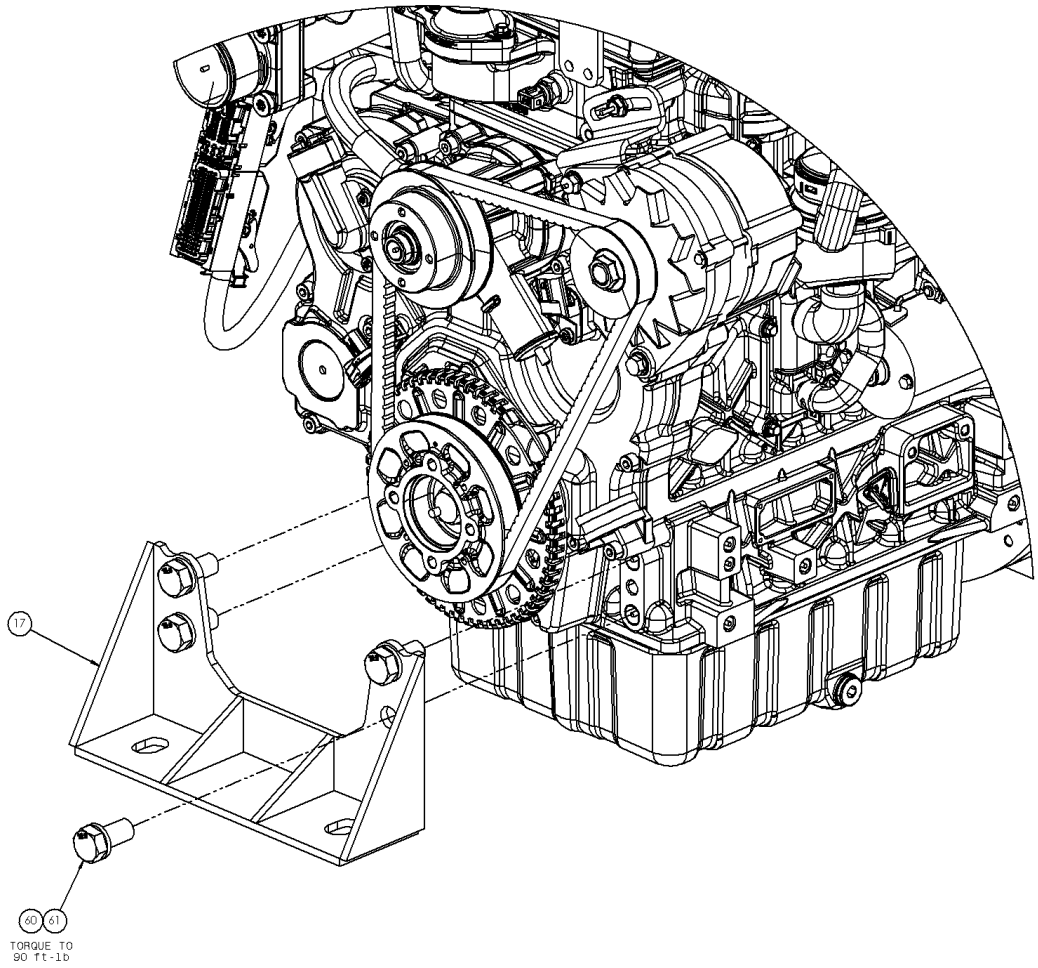
10.6 ENGINE ASSEMBLY *(continued)*



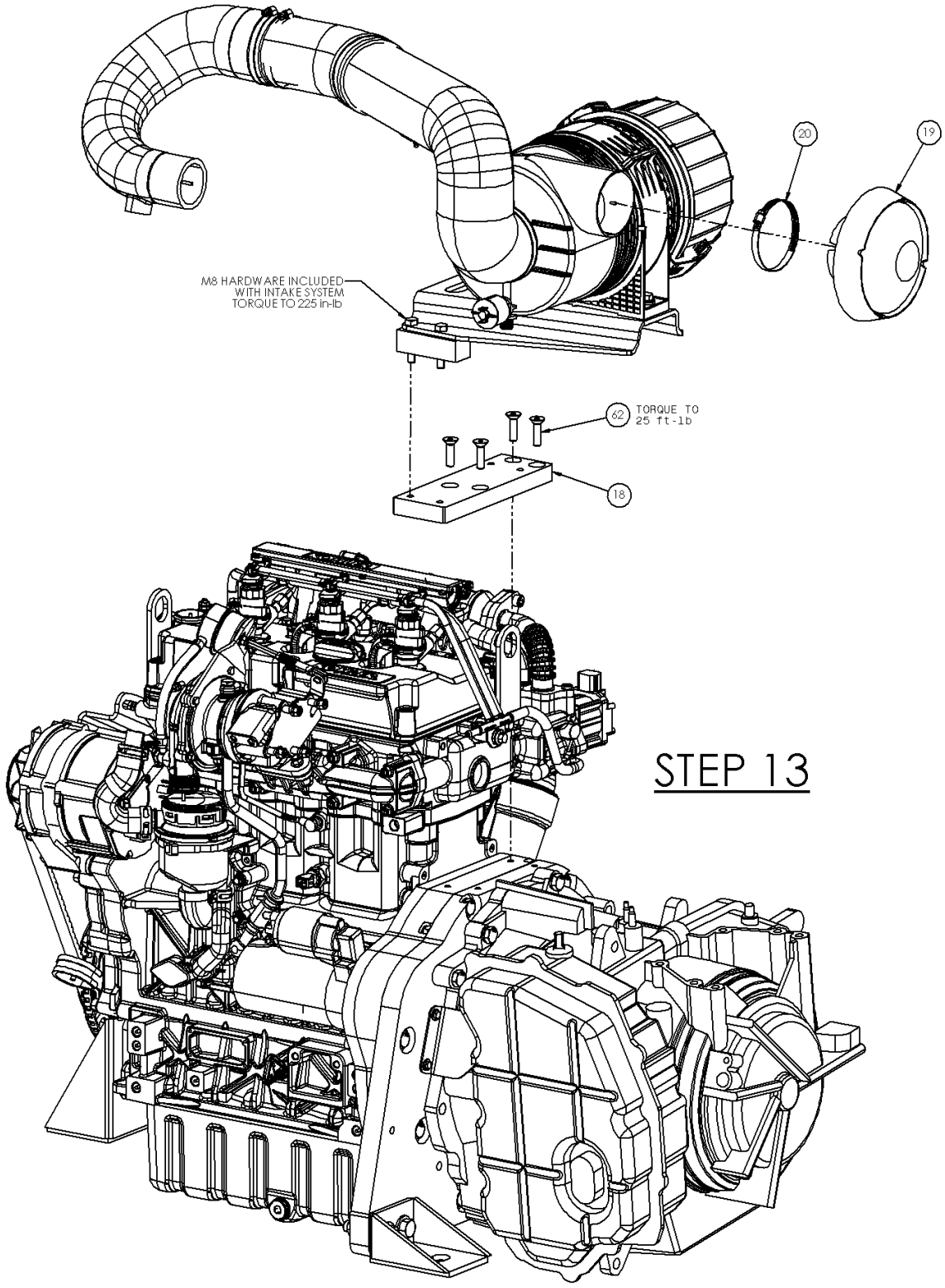




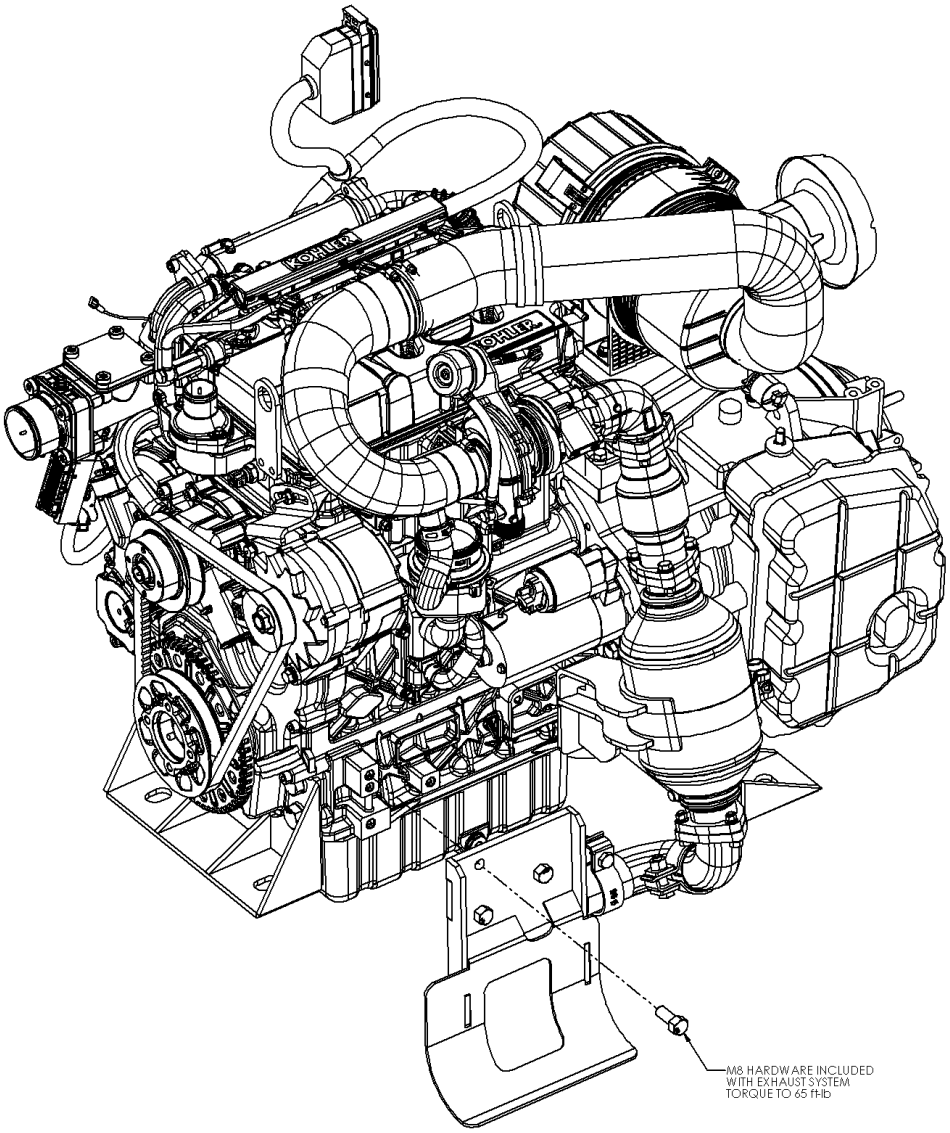
10.6 ENGINE ASSEMBLY *(continued)*



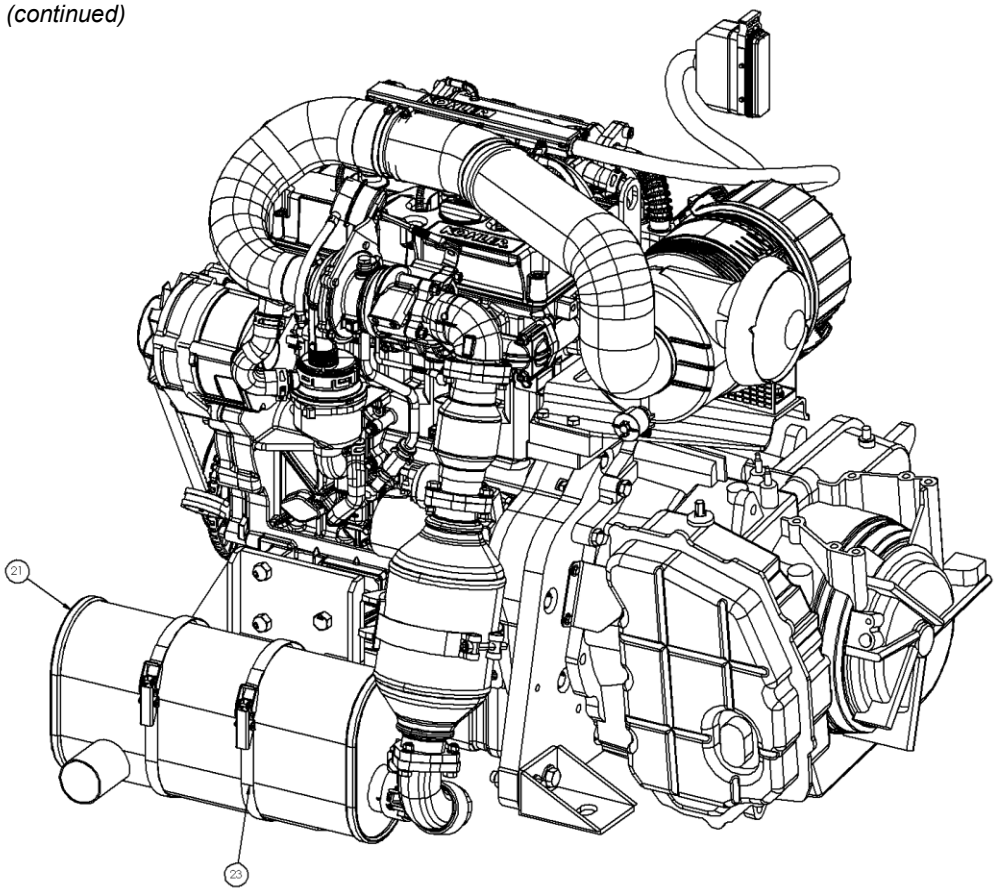
10.6 ENGINE ASSEMBLY *(continued)*

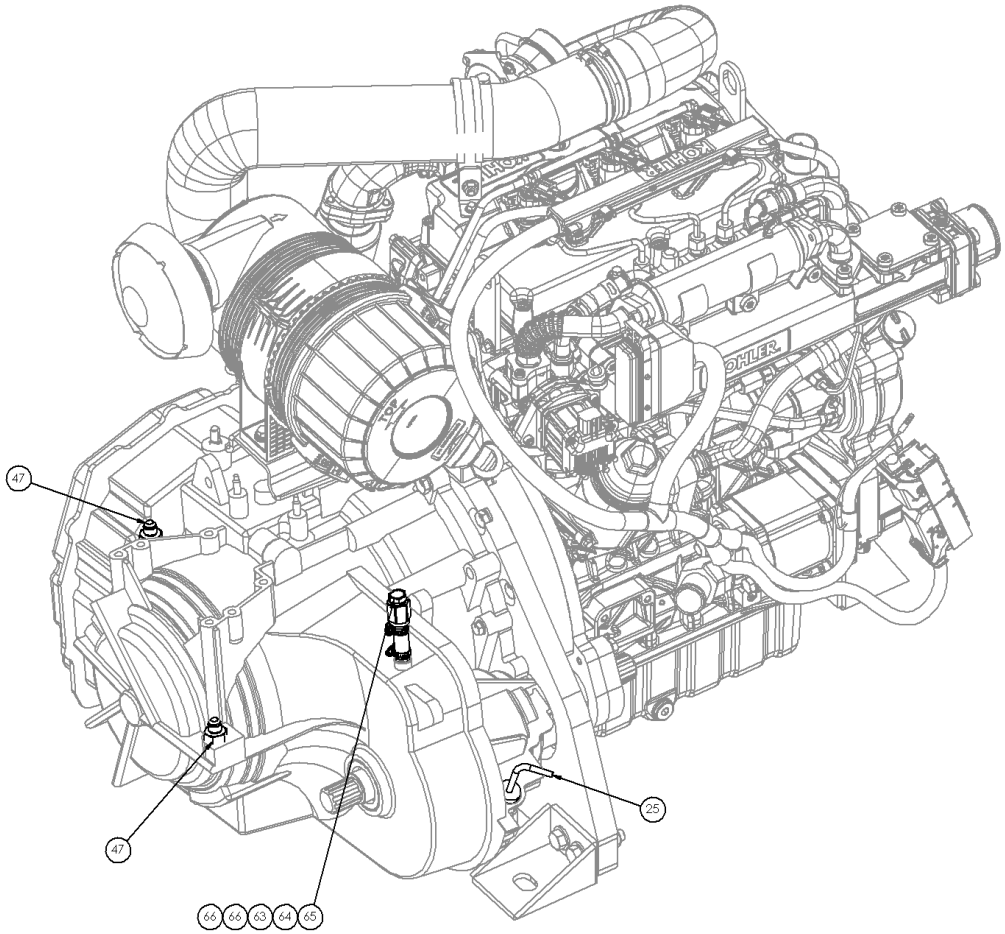


10.6 ENGINE ASSEMBLY *(continued)*

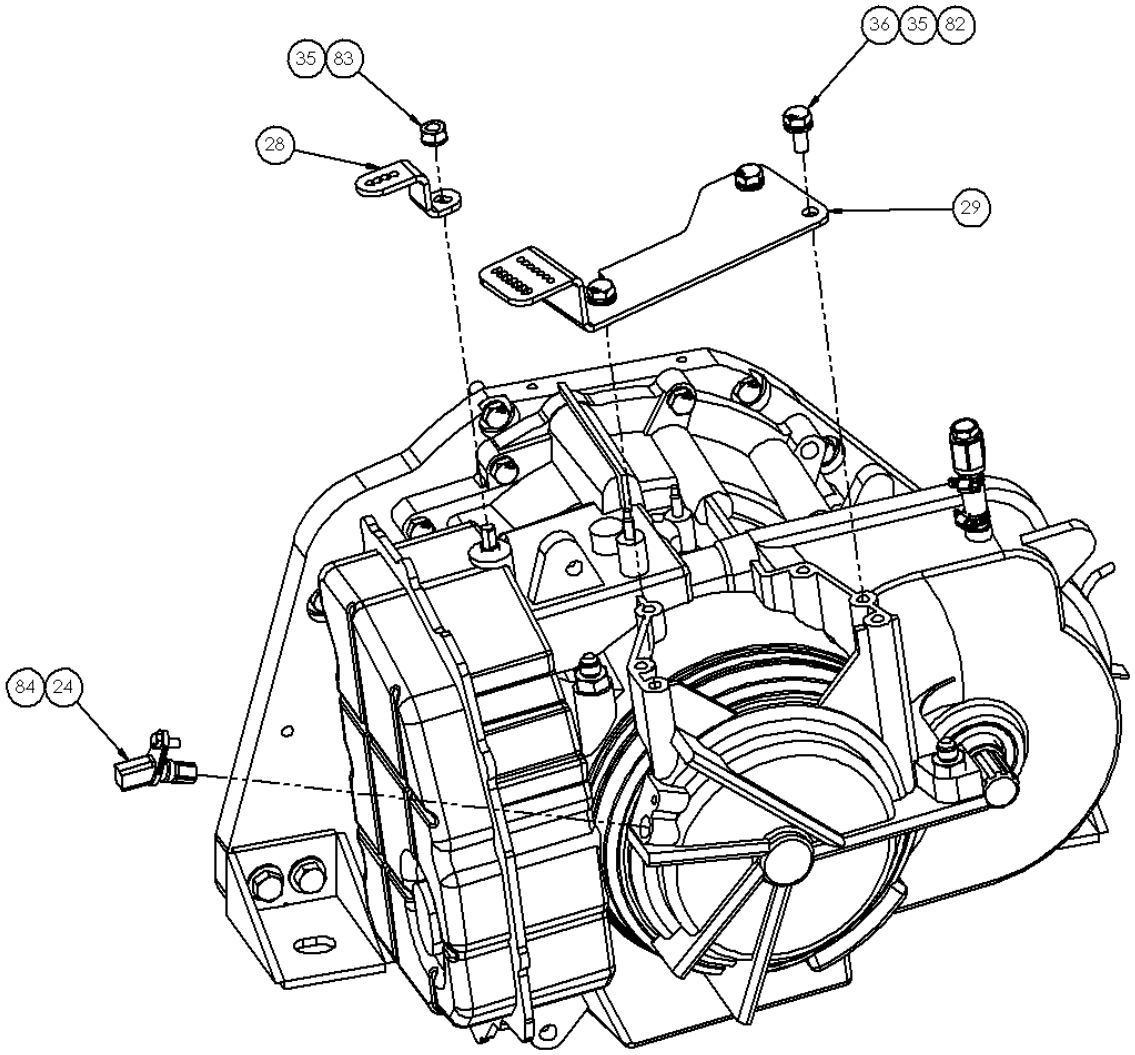


10.6 ENGINE ASSEMBLY *(continued)*

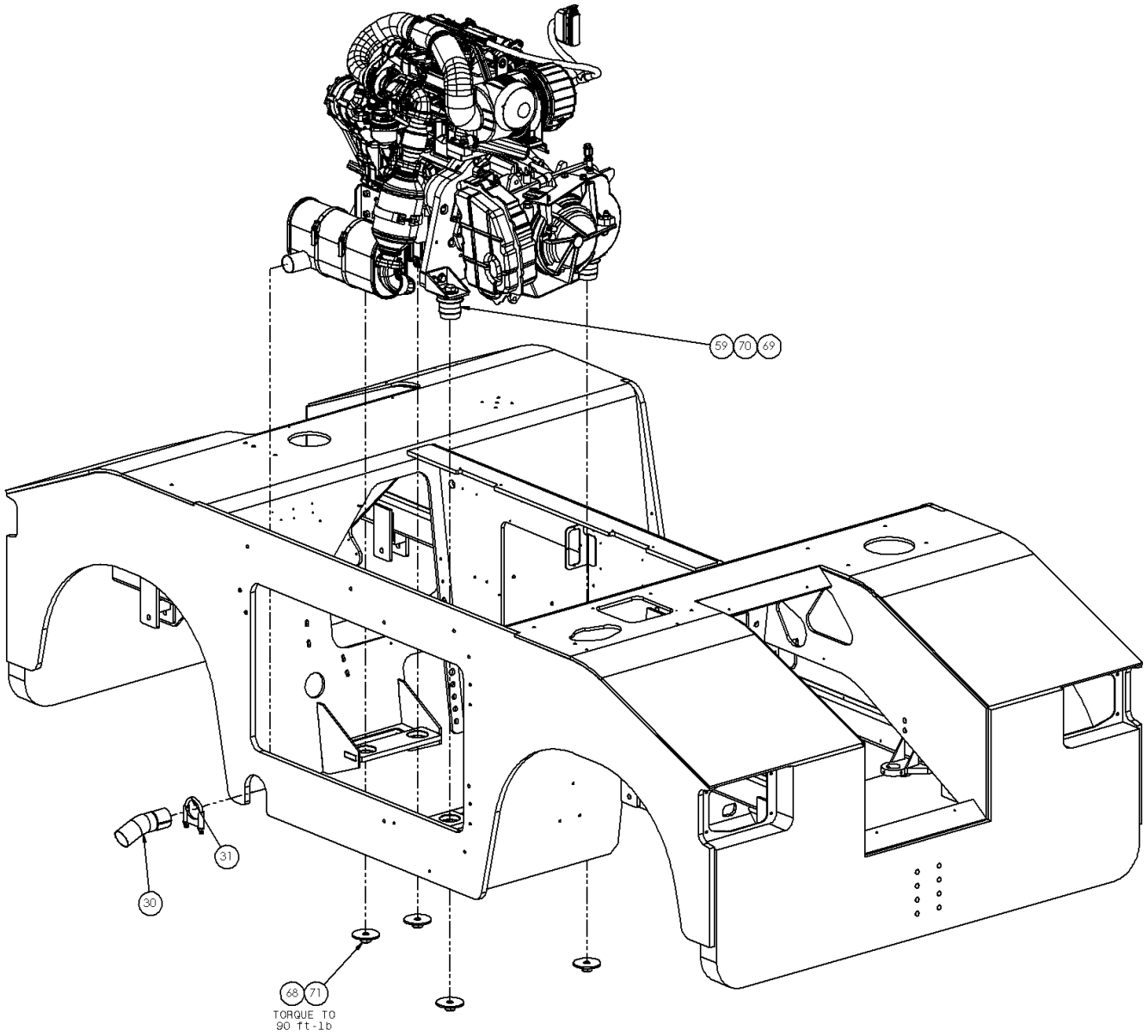




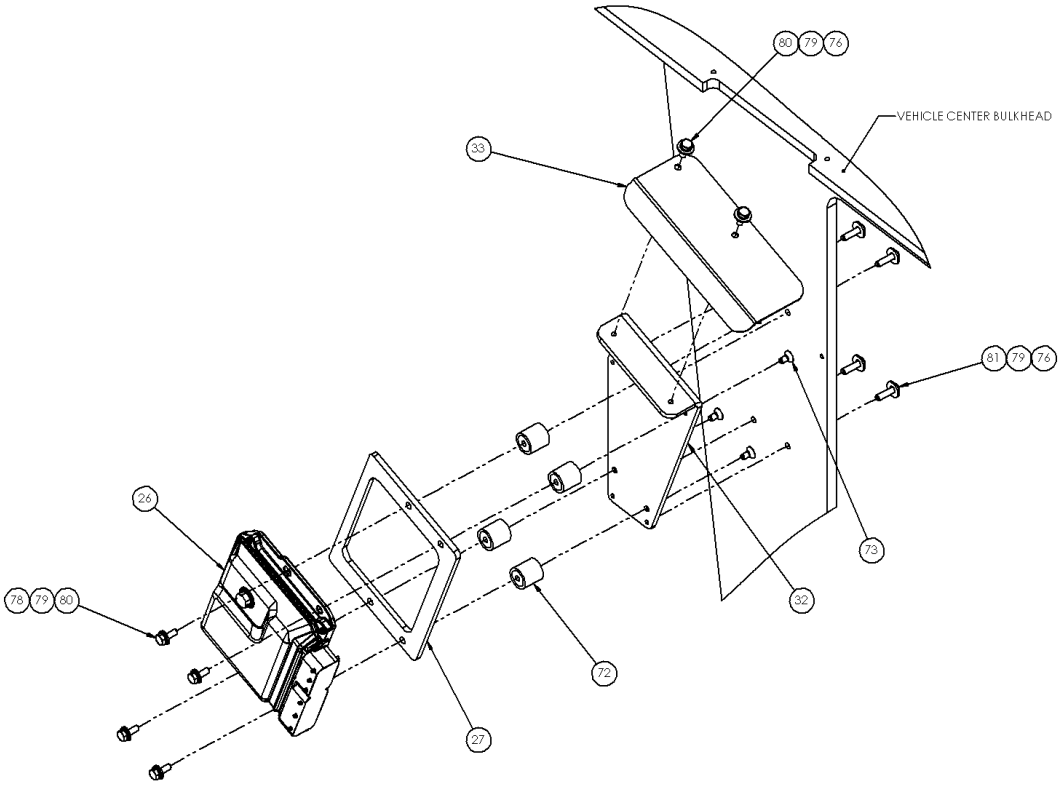
10.6 ENGINE ASSEMBLY *(continued)*

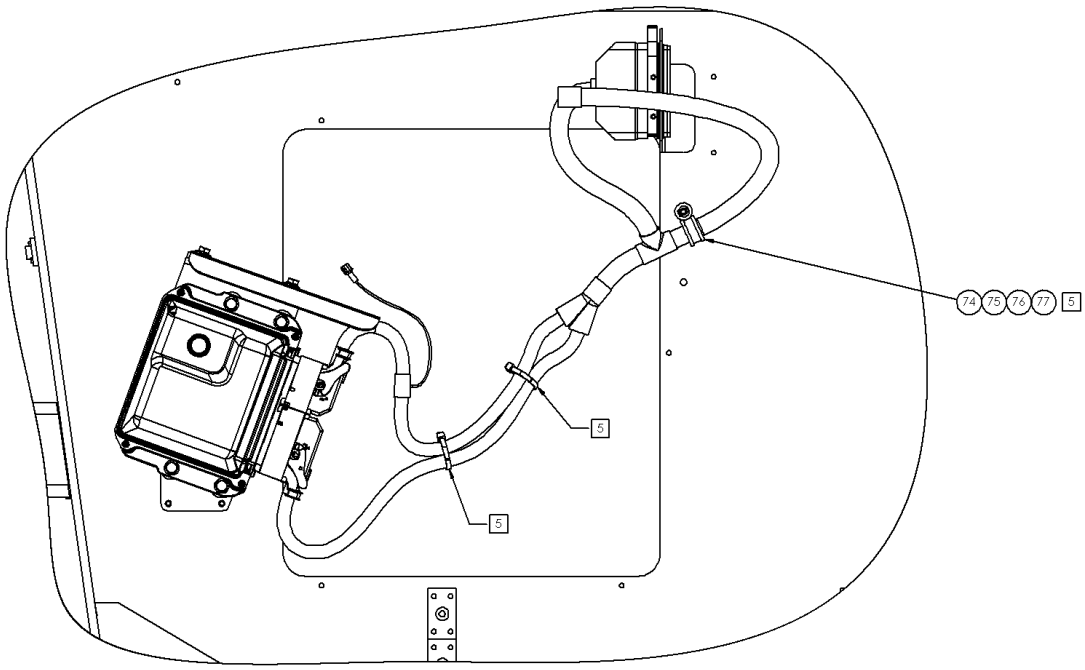


10.6 ENGINE ASSEMBLY *(continued)*



10.6 ENGINE ASSEMBLY *(continued)*





5 SECURE ENGINE HARNESS WITH CABLE TIES AND LOOP CLAMP AS SHOWN

10.6 ENGINE ASSEMBLY *(continued)*

Parts List – Engine Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-9788	KOHLER KDI1903 ENGINE ASSY	1
2	J-6767	ENGINE PLATE	1
3	H-4245	KDI1903 FLYWHEEL	1
4	J-6768	SPACER PLATE	1
5	J-6769	TRANS PLATE	1
6	R-3199	FLEXPLATE ADAPTER	1
7	S-3326-HT	FLEXPLATE, HEAT TREATED	1
8	S-3327	FLEXPLATE WASHER	1
9	H-4239	TRANSMISSION	1
10	S-3328-00	TRANS ACCESS HOLE COVER (P)	1
11	H-4264	TRANS SHAFT RETAINER CLIP	1
12	R-3200	TRANS OUTPUT SHAFT FRONT	1
13	J-6770	TRANS SHAFT BEARING SUPPORT	1
14	H-4263	TRANS SHAFT BEARING	1
15	R-3444	TRANS OUTPUT SHAFT REAR	1
16	Z-9810-00	REAR MOTOR MOUNT (P)	2
17	Z-9811-00	FRONT MOTOR MOUNT (P)	1
18	J-6771-00	INTAKE MTG ADAPTER (P)	1
19	A-TT4-00098-1	AIR FILTER INTAKE CAP	1
20	H-1426-13	CLAMP, HOSE	1
21	H-4262	MUFFLER	1
22	Z-10077-00	WLD, MUFFLER BRACKET (WP)	1
23	XM00-07-007-SA	AFTERTREATMENT STRAP CLAMP	2
24	EC-3148	TRANSMISSION SPEED SENSOR	1
25	N/A	ASY, DIPSTICK	1
26	EC-3114	KDI1903 T4F ECU	1
27	J-7481-00	NVH BALLAST WEIGHT (P)	1
28	J-6869-00	SHIFT LEVER (P)	1
29	J-6877-00	SHIFT CABLE CLAMP BRKT (P)	1
30	TR-2356	EXHAUST PIPE	1
31	H-1537-02	CLAMP, MUFFLER	1
32	J-7571-00	ECU MTG ADAPTER PLATE (P)	1
33	S-3908-00	SHIELD, ENGINE ECU (P)	1
34	G-1573-1020	PIN, DOWEL Ø10MM X 32MM	2
35	G-1514-M100R	LOCKWASHER, M 10 REGULAR	44
36	G-1533-100025	BOLT M10-1.5 X 25mm LG. CLASS 10.9	13
37	G-1315-07-2.50	PIN, 3/8" X 2-1/2" STL DOWEL	2
38	G-1533-100040	BOLT M10-1.5 X 40mm LG. CLASS 10.9	28
39	G-1792	TRANSMISSION DOWEL PIN	2
40	G-1420-107010	BOLT, 3/8-16 X 1.0" HEX HD GR 8	8
41	G-1793-10	NUT, HEX CLASS 8 M10X1	4
42	G-1515-M80	FLATWASHER, M8	1
43	G-1514-M80R	SPLIT LOCK WASHER (METRIC)	1
44	G-1114-080055	BOLT M8-1.25 X 55mm LG. CLASS 8.8	1

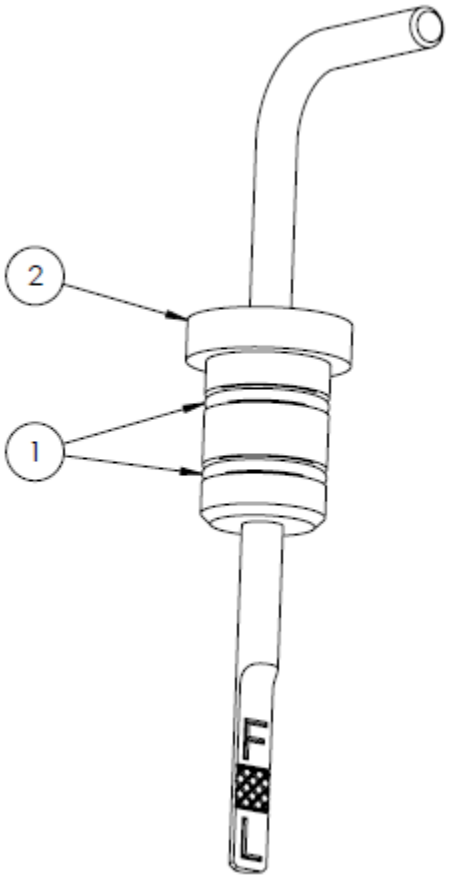
10.6 ENGINE ASSEMBLY *(continued)*

Parts List – Engine Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
45	G-1150-103504	SCREW, #10-32 X 1/2" LG HEX HD MACHINE	2
46	G-1250-1030N	FLATWASHER, #10 NARROW	2
47	C5315X6X8	ADAPTER, -08 M ORB X -06 M JIC	2
48	G-1250-1070W	FLATWASHER, 3/8 WIDE	2
49	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	2
50	G-1420-107014	BOLT, 3/8-16 X 1.5" HEX HD GR 8	2
51	HC-2818	19CC HYD GEAR PUMP	1
52	N-2007-17-S-B	ADAPTER, -10 M JIC X -12 M ORB	1
53	4603-20-16	ELBOW 45, -16 M ORB X -20 BEAD	1
54	H-4261	KDI1903 HYD PUMP GEAR	1
55	G-1491-107015	SCR, M8-1.25 SOC HD CAP	4
56	G-1626-M8Z	LOCKWASHER, M8 HIGH COLLAR	4
57	G-1250-1090N	FLATWASHER, 1/2 NARROW	8
58	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4
59	G-1420-109022	BOLT, 1/2-13 X 2-1/4 H.H. GR 8	4
60	G-1514-M160R	LOCKWASHER, M16 REGULAR	4
61	G-1533-161035	BOLT M16-1.5 X 35mm LG. CLASS 10.9	4
62	G-1152-106212	82 DEG FHC, 5/16-18 X 1.25	4
63	TF-1080-06-002.00	HYD HOSE - TRANS DRAIN	1
64	N-2917-03	ADAPTER, 3/8 F NPT X -06 BARB, BRASS	1
65	H-3016	VENT, BREATHER	1
66	H-1426-01	HOSE CLAMP - .38" - .87"	2
67	ET00-03-005-CA	ISOLATOR, ENGINE MOUNT	4
68	A-TT5D-00010	ENGINE MOUNT WASHER	4
69	G-1250-1110W	FLATWASHER, 3/4 WIDE	4
70	G-1420-111034	BOLT, 3/4-10 X 3-1/2" HEX HD GR 8	4
71	G-1727-1110	NUT, 3/4-10 TOP LOCK ZINC	4
72	H-4731	THREADED ISOLATOR	4
73	G-1152-105204	SCREW, 1/4-20 X 1/2" LG SOCKET FLAT HD CAP	4
74	H-3521-09	CLAMP, CUSHIONED LOOP 7/8"	1
75	G-1152-105210	SCREW, 1/4-20 X 1.0" LG SOCKET FLAT HD CAP	1
76	G-1250-1050W	FLATWASHER, 1/4 WIDE	7
77	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	1
78	G-1250-1050N	FLATWASHER, 1/4 NARROW	4
79	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	10
80	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	6
81	G-1154-105210	SCREW, 1/4-20 X 1" LG. SOC BUTT. HD CAP	4
82	G-1515-M100	FLATWASHER, M10	3
83	G-1793-12	NUT, HEX CLASS 8 M10X1.5	1
84	G-1114-060016	BOLT, M6X1.0 X 16 CLASS 8.8	1
85	G-1533-100035	BOLT M10-1.5 X 35mm LG. CLASS 10.9	2
86	L-1026	TRANSMISSION FLUID, MERCON LV	5
87	L-1027	ENGINE OIL, 5W40 SYNTHETIC	9.5

10.7 DIPSTICK



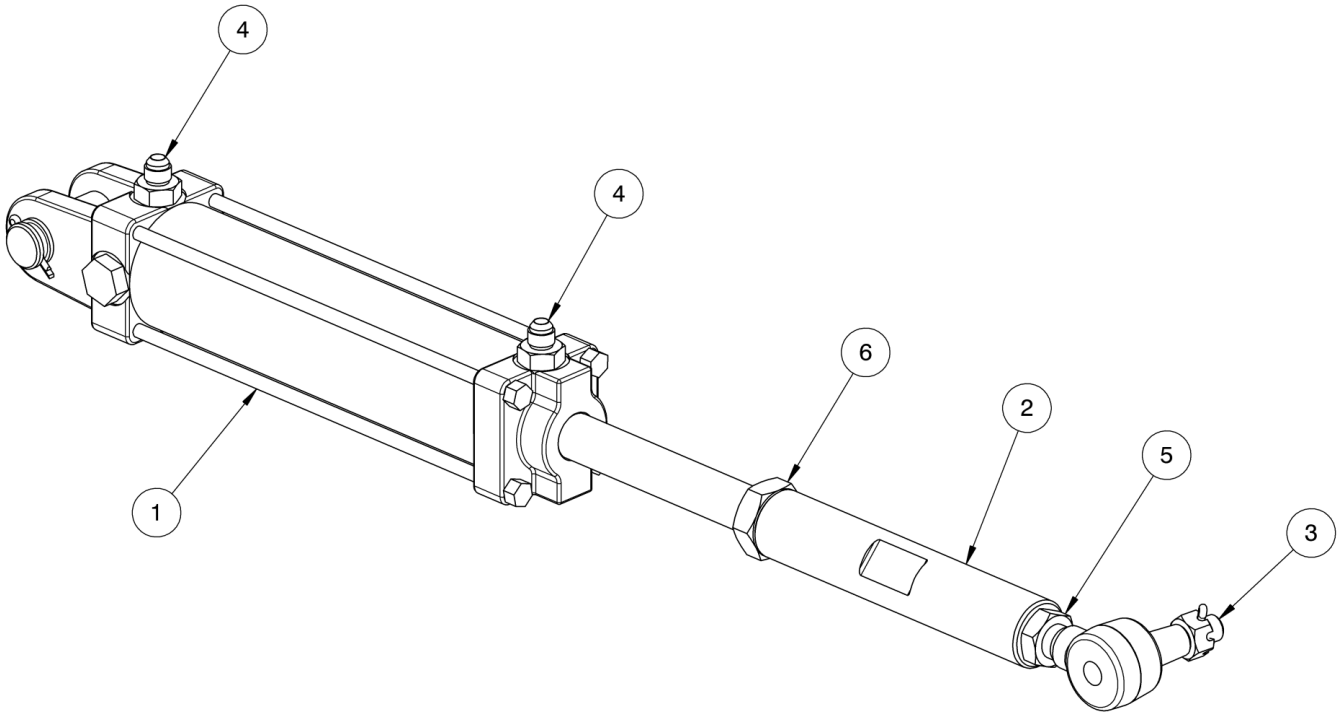
Parts List – Dip Stick

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	HC-2000-016	O-RING, SERIES 2	2
2	Z-10760-00	WLD, TRANS DIPSTICK (P)	1

11.0 HYDRAULICS

11.1 STEER CYLINDER SUB

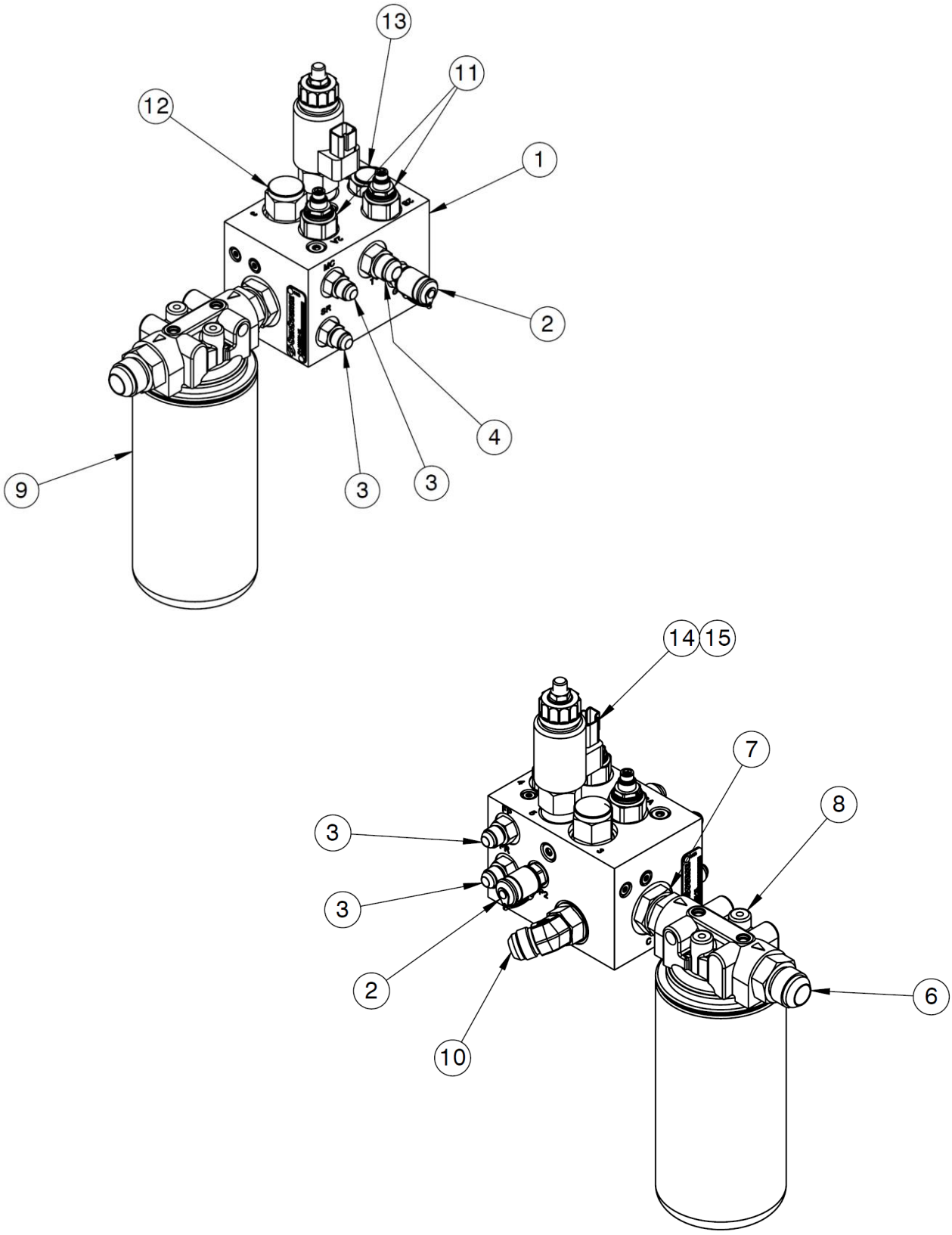


Parts List – Steer Sub Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	A-TT10-00803-1	CYLINDER-HYD-STEERING	1
2	TR-2514	STEERING COUPLER	1
3	A-TT4-00403	TIE-ROD END RIGHT	1
4	C5315X6X8	ADAPTER, -08 M ORB X -06 M JIC	2
5	G-1207-1115	NUT, 3/4-16 JAM	1
6	G-1207-1120	NUT, 1"-14 JAM	1

11.2 MANIFOLD SUB

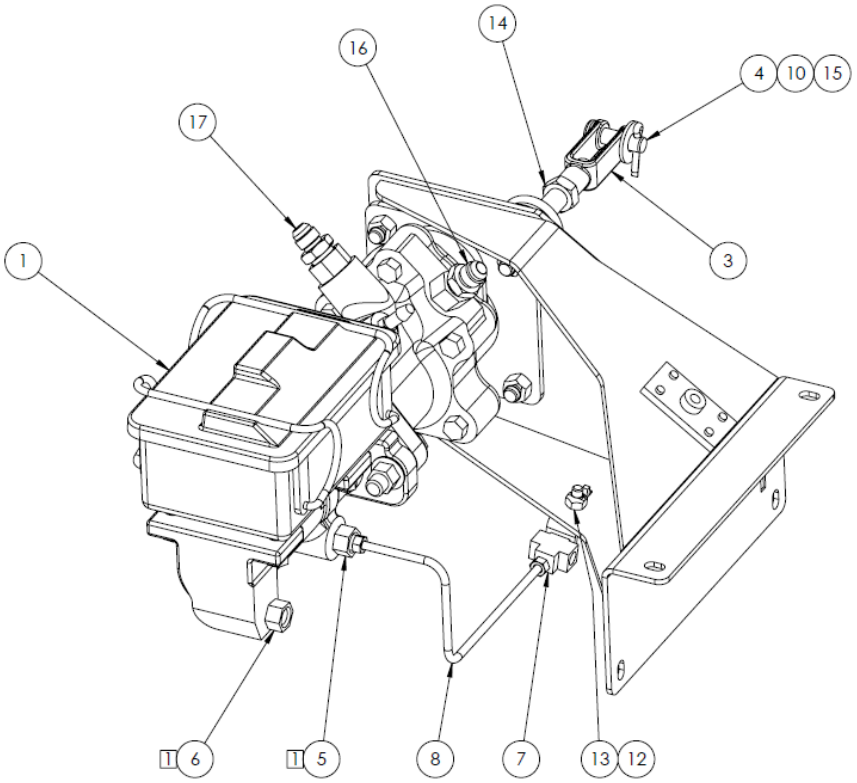


Parts List – Manifold Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

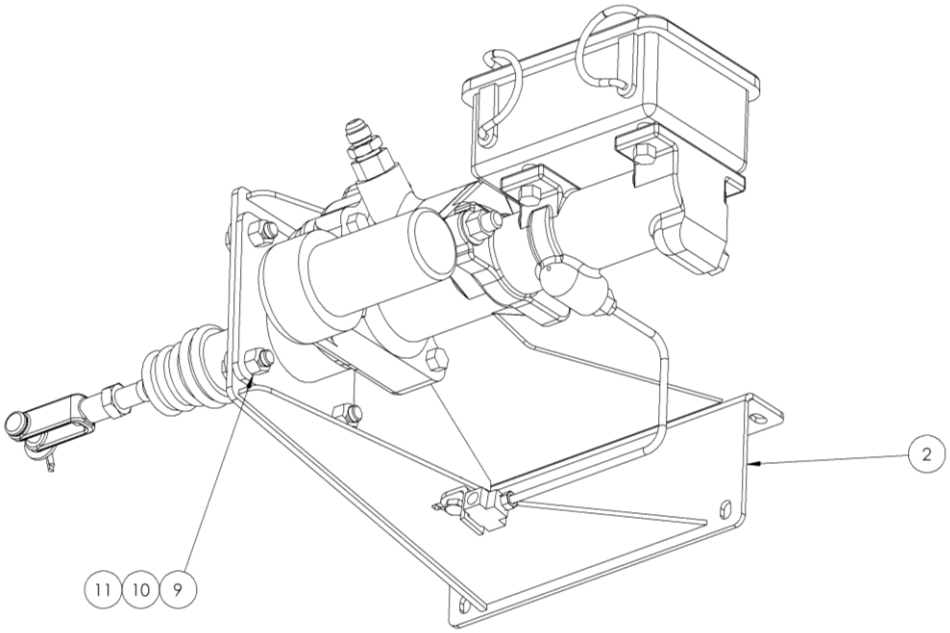
Item	Part Number	Description	Qty
1	HC-2811	MANIFOLD ASSEMBLY (INCLUDES ITEMS 11 THROUGH 15)	1
2	N-2544-04	CPLG, QUICK DISCONNECT MB	2
3	C5315X6	ADAPTER, -06 M SAE ORB X -06 M JIC	4
4	C5315X8	ADAPTER, -08 M SAE ORB X -08 M JIC	1
6	C5315X12	ADAPTER, -12 M SAE ORB X -12 M JIC	1
7	C5314X12X12	ADAPTER, -12 M SAE ORB X -12 M SAE ORB	1
8	A-ES12-0486	HYD FILTER HEAD	1
9	NVSP-09-018-CA	SPIN-ON HYD FILTER	1
10	10 V5OX-S	HYD FITTING	1
11	HC-2974	VALVE, RELIEF (INCLUDED WITH ITEM 1)	2
12	HC-2975	VALVE, FLOW CONTROL (INCLUDED WITH ITEM 1)	1
13	HC-2976	VALVE, CHECK (INCLUDED WITH ITEM 1)	1
14	HC-2977	VALVE, PROPORTIONAL RELIEF (INCLUDED WITH ITEM 1)	1
15	HC-2978	COIL, 12V (INCLUDED WITH ITEM 1)	1

11.3 MASTER CYLINDER SUB



NOTES:

1 APPLY LOCTITE 565 TO ADAPTER FITTING THREADS DURING ASSEMBLY.



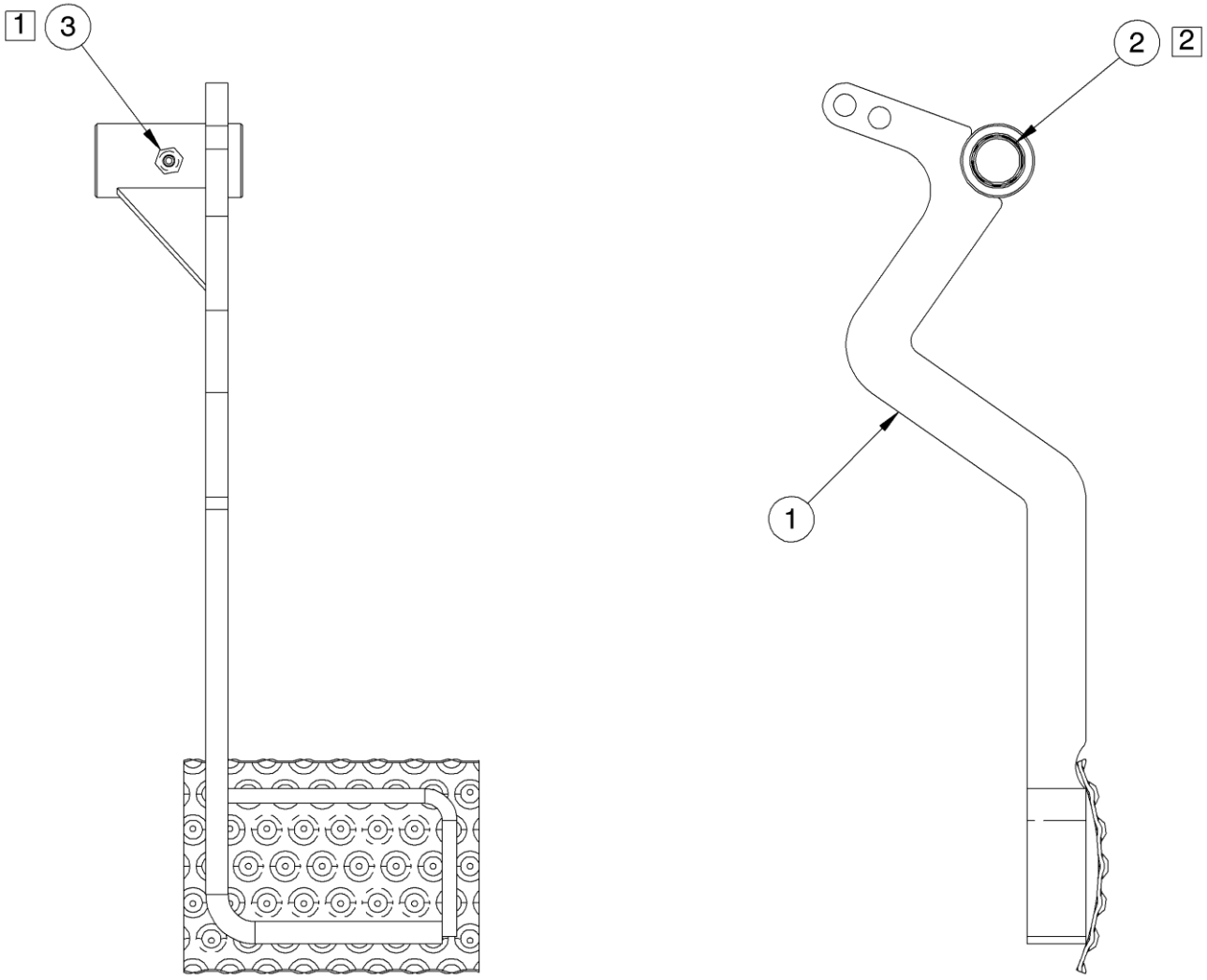
11.3 MASTER CYLINDER SUB *(continued)*

Parts List – Master Cylinder Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	A-TT4-00161-1	BRAKE MASTER CYLINDER	1
2	Z-9839-00	WLD, MASTER CYL BRACKET (P)	1
3	A-TT4-10192	CLEVIS	1
4	A-TT4-00193	.375 CLEVIS PIN	1
5	A-TT5-00180	INVERTED FLARE ADAPTER	1
6	A-TT5-00181	INVERTED FLARE ADAPTER	1
7	A-TT4-00168	CROSS TEE REAR	1
8	H-4279	FRONT BRAKE JUMPER	1
9	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	4
10	G-1250-1070W	FLATWASHER, 3/8 WIDE	5
11	G-1420-107010	BOLT, 38-16 X 1.0" HEX HD GR 8	4
12	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	1
13	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	1
14	G-1207-1095	NUT, 1/2-20 JAM	1
15	G-1301-04	PIN, 5/32 X 1.0" LG. COTTER	1
16	N-3115-06-06	ADAPTER, 5/8-18 INV FLARE TO -6 AN	1
17	N-3115-06-07	ADAPTER, 11/16-18 INV FLARE TO -6 AN	1

11.4 BRAKE PEDAL SUB



1 APPLY LOCTITE 565 THREAD SEALANT OR EQUIVALENT.

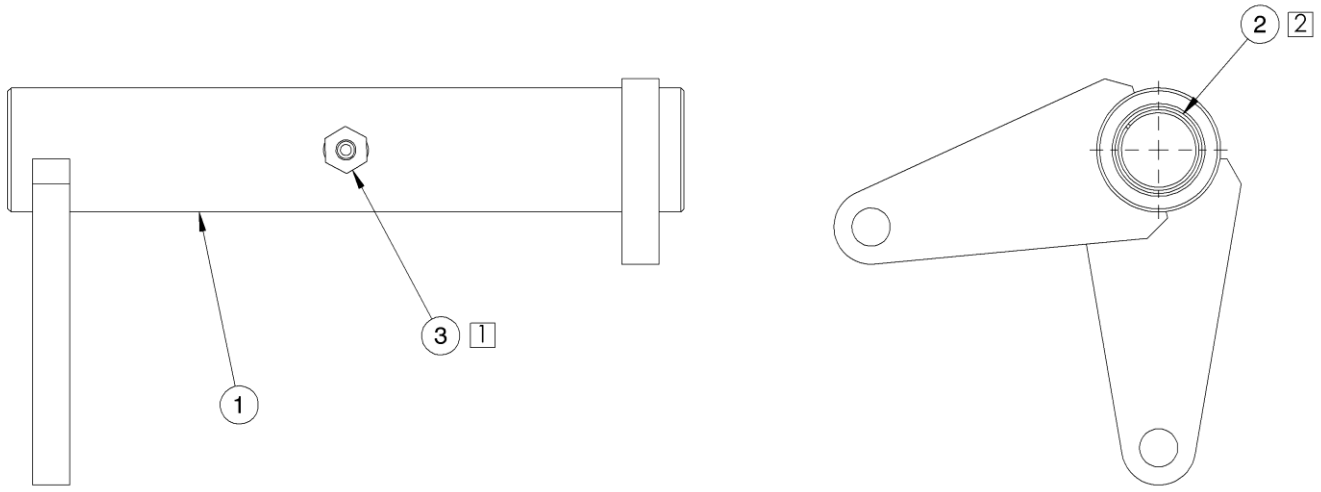
2 INSTALL BEARINGS FLUSH WITH ENDS OF TUBE, INSTALL BEARINGS WITH LOCTITE BEARING RETAINING COUMPOUND OR EQUIVALENT.

Parts List – Brake Pedal Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-9837-00	WLD, BRAKE PEDAL (P)	1
2	C-TT4-10188	NYLINER BEARING	2
3	A-RTT50-0328	GREASE ZERK	1

11.5 BELL CRANK SUB



NOTES:

1 INSTALL WITH PIPE THREAD SEALANT LOCTITE 565 OR EQUIVALENT.

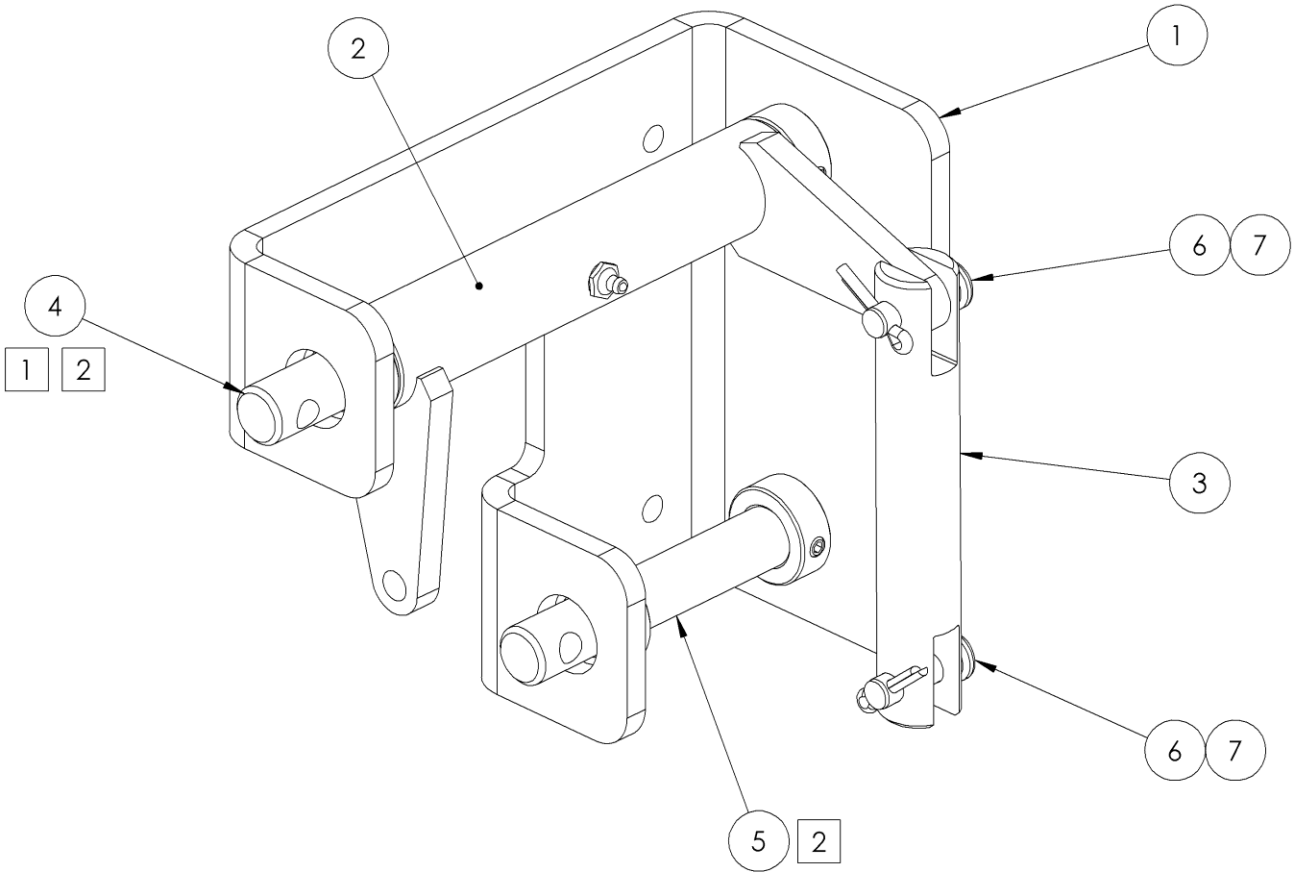
2 INSTALL BEARINGS FLUSH WITH ENDS OF TUBE, INSTALL BEARINGS WITH LOCTITE BEARING RETAINING COMPOUND OR EQUIVALENT.

Parts List – Bell Crank Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-9835-00	WLD, BELL CRANK (P)	1
2	C-TT4-10188	NYLINER BEARING	2
3	A-RTT50-0328	GREASE ZERK	1

11.6 BRAKE LINKAGE SUB



1 LIBERALLY APPLY PERMATEX ® ANTI-SIEZE LUBRICANT OR EQUIVALENT TO BEARING INTERFACE DURING ASSEMBLY

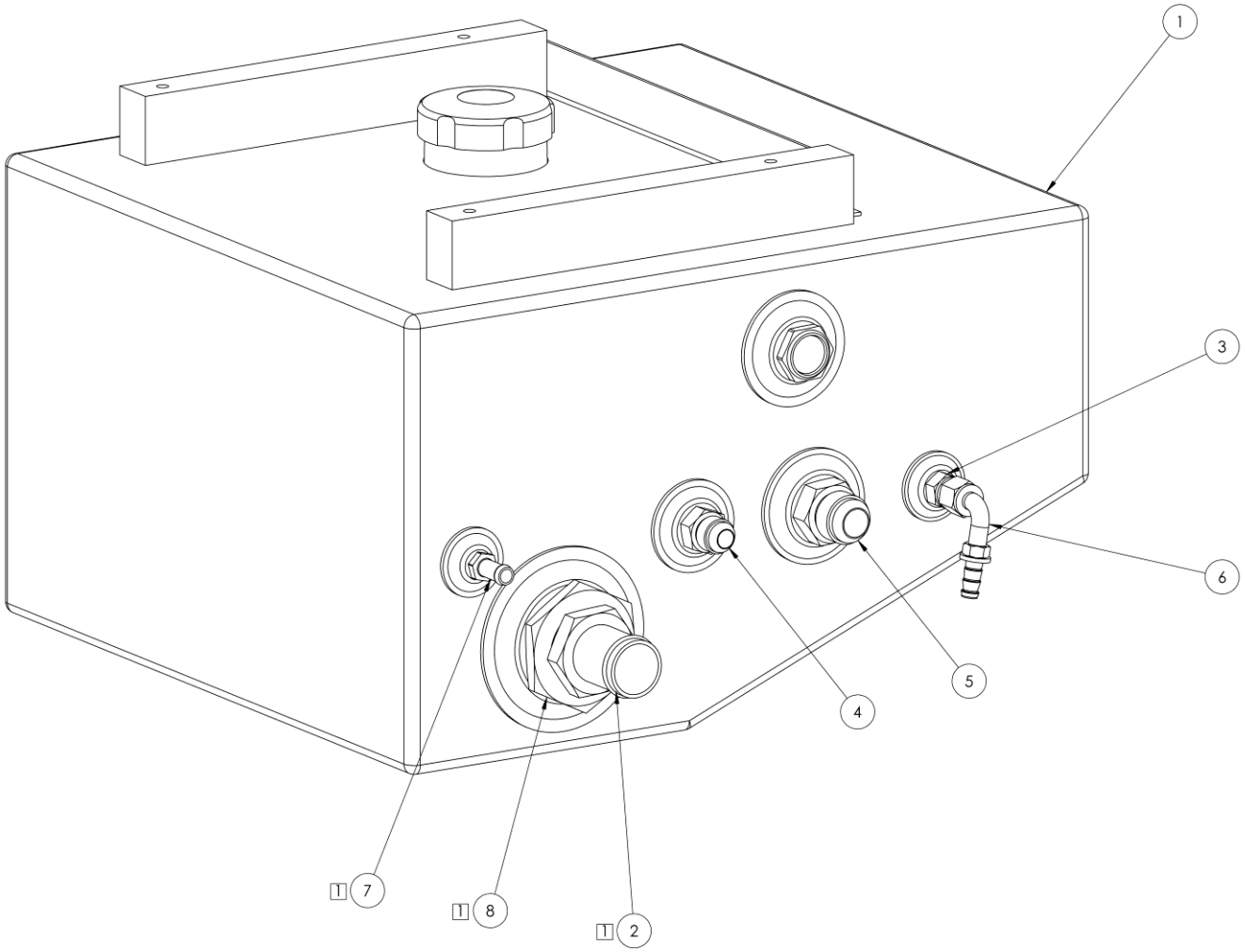
2 NOTE ORIENTATION (WHICH SIDE OF BRACKET) HOLE IS LOCATED ON

Parts List – Brake Linkage Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-9833-00	WLD, BELL CRANK BRKT (P)	1
2	Z-9834	ASY, BELL CRANK	1
3	R-3203-00	BRAKE LINKAGE BAR (P)	1
4	R-3204	TOP PIVOT SHAFT	1
5	R-3205	BOTTOM PIVOT SHAFT	1
6	A-TT4-00193	.375 CLEVIS PIN	2
7	G-1301-04	PIN, 5/32 X 1.0" LG. COTTER	2

11.7 HYDRAULIC TANK SUB



NOTES:

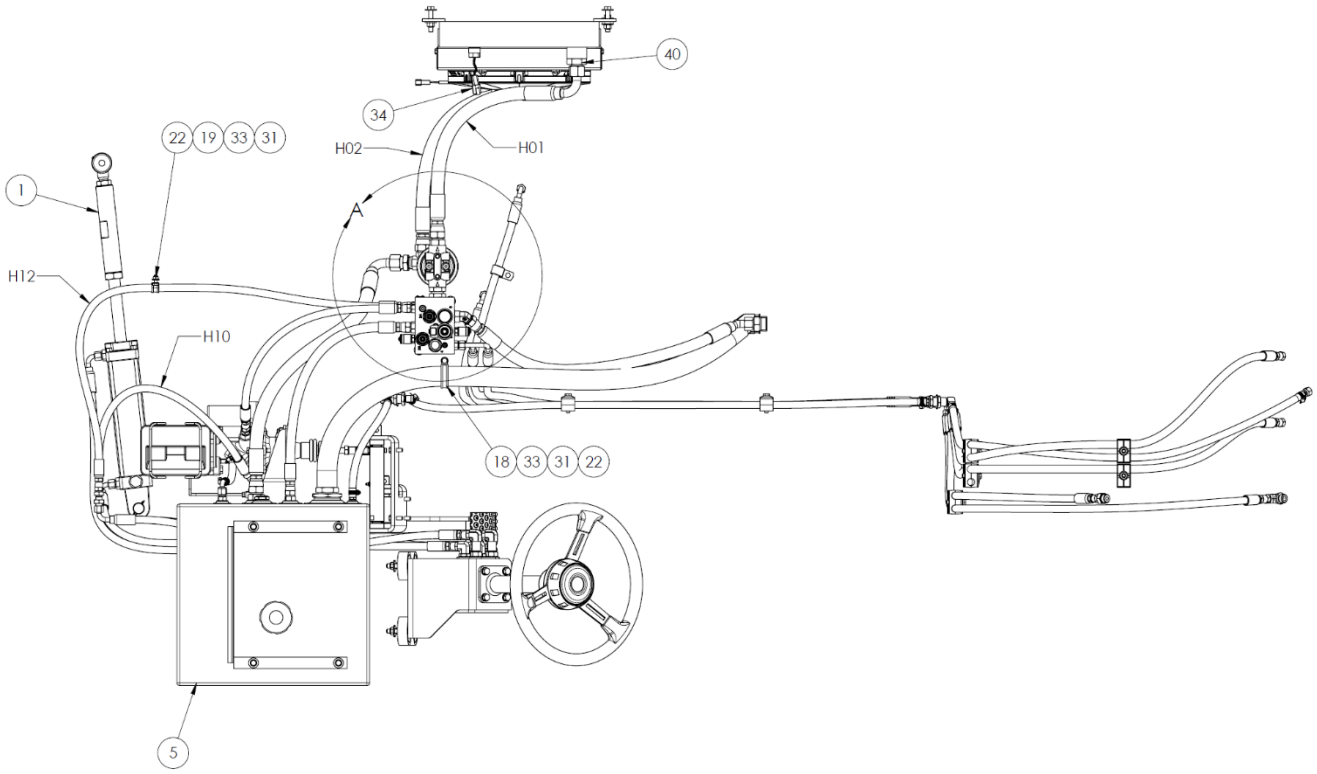
[1] INSTALL WITH PIPE THREAD SEALANT LOCTITE 565 OR EQUIVALENT, NPT ONLY.

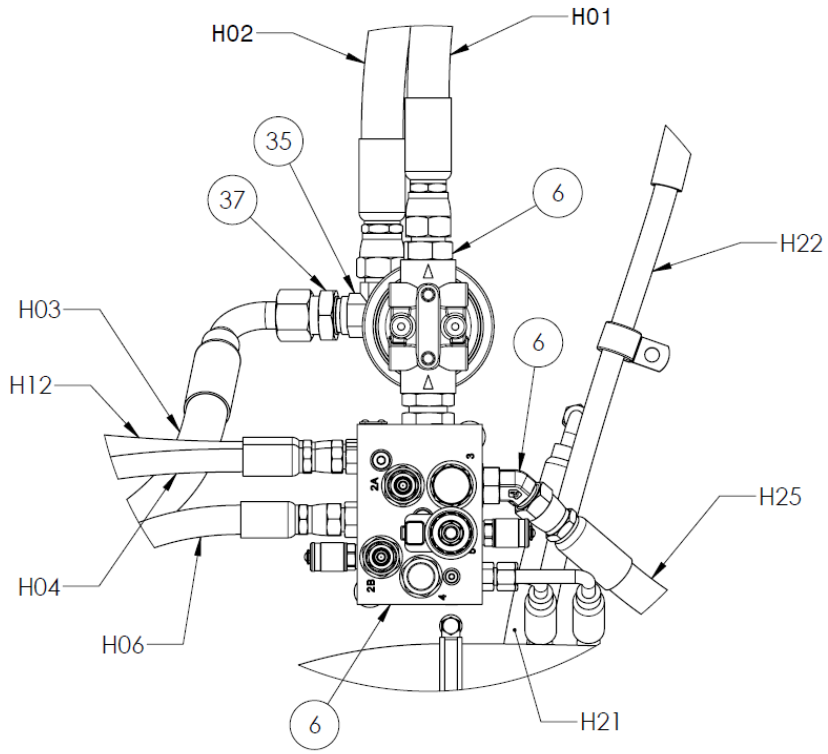
Parts List – Hydraulic Tank Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	HC-2819	HYDRAULIC TANK	1
2	4404-20-20	FITTING, 20 HOSE, 20 NPT M	1
3	C5315X6	ADAPTER, -06 M SAE ORB X -06 M JIC	1
4	C5315X8	ADAPTER, -08 M SAE ORB X -08 M JIC	1
5	C5315X12	ADAPTER, -12 M SAE ORB X -12 M JIC	1
6	33982-6-6	ELBOW 90, -06 F JIC X -06 BARB	1
7	05706B-104	ADAPTER, -06 BEAD X 1/4 M NPT	1
8	HC-2876	TANK STRAINER, TTR	1

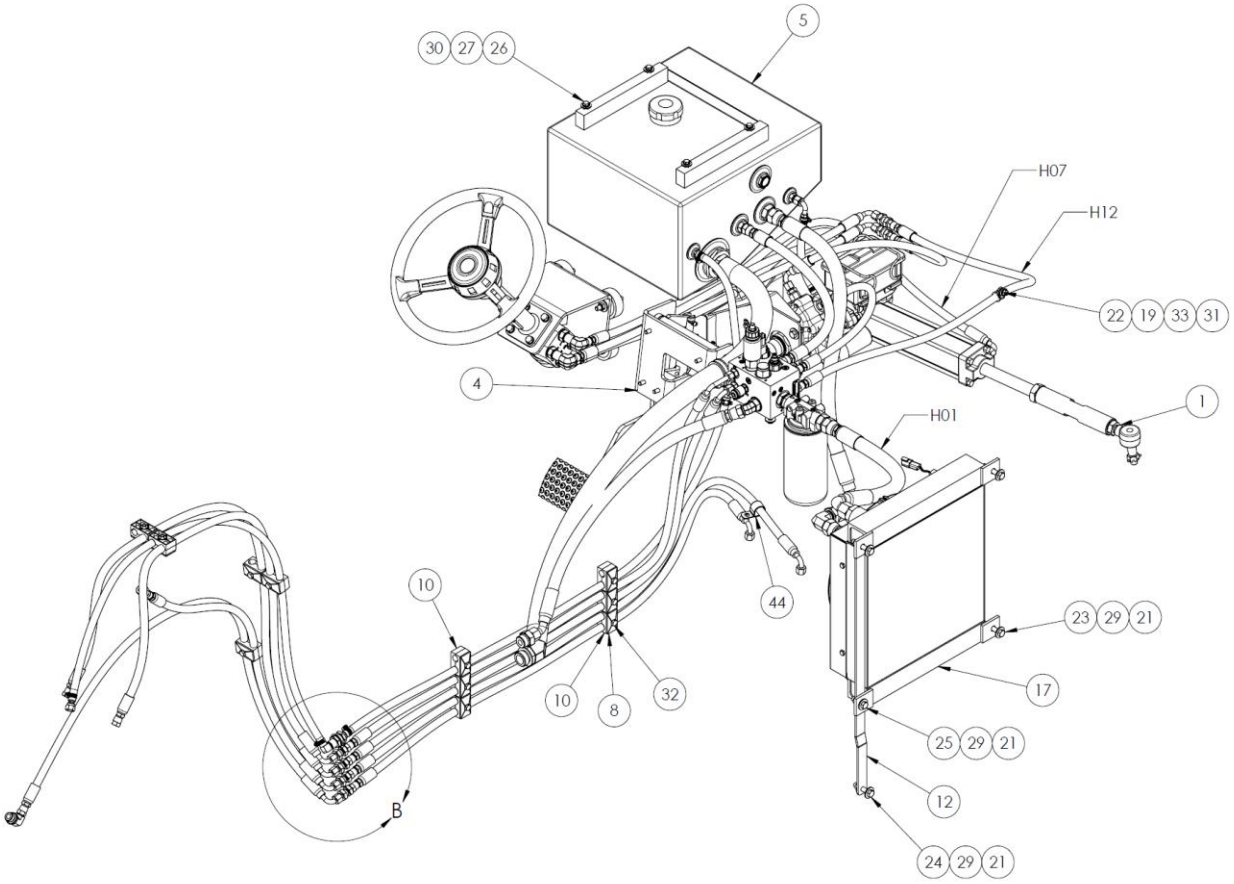
11.8 HYDRAULIC SYSTEM

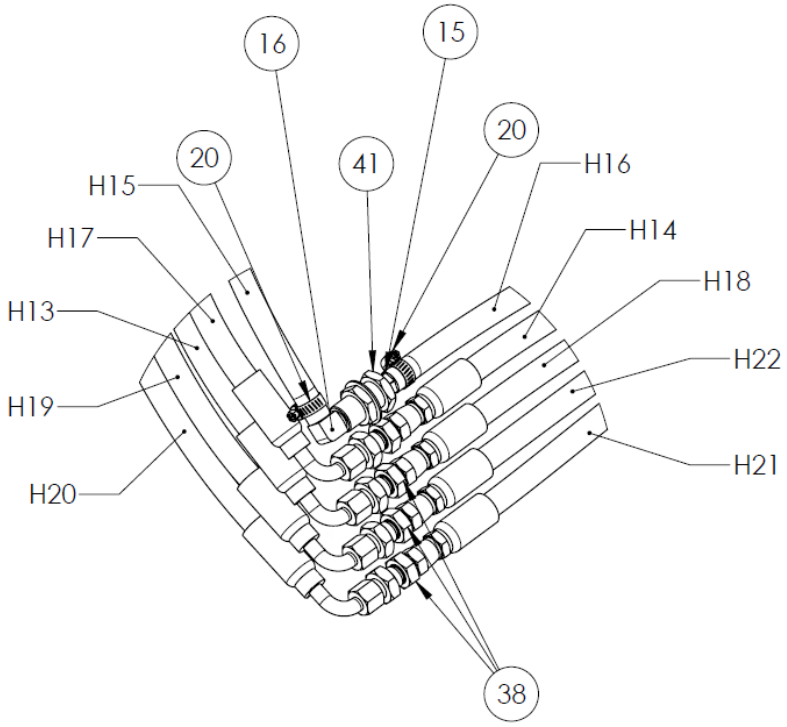




DETAIL A

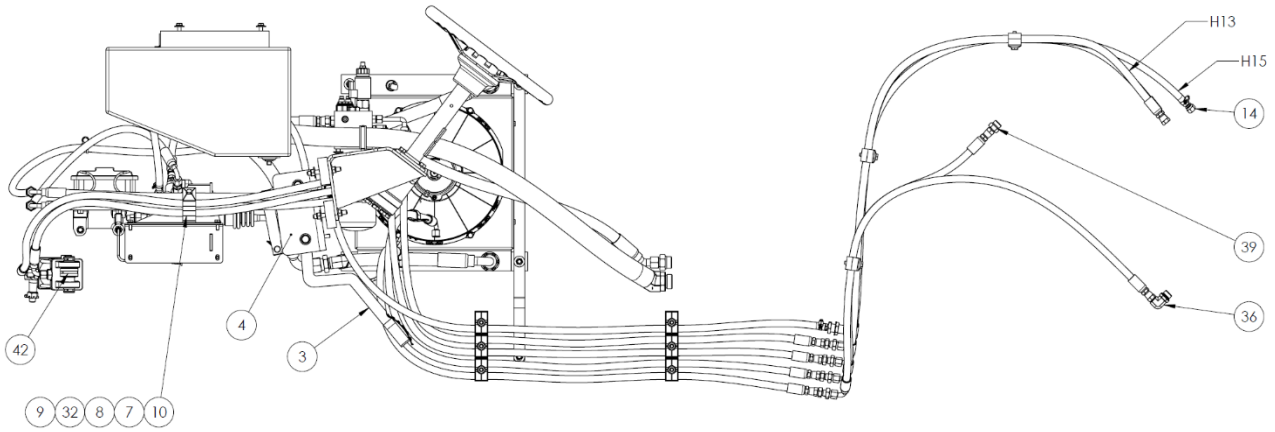
11.8 HYDRAULIC SYSTEM *(continued)*

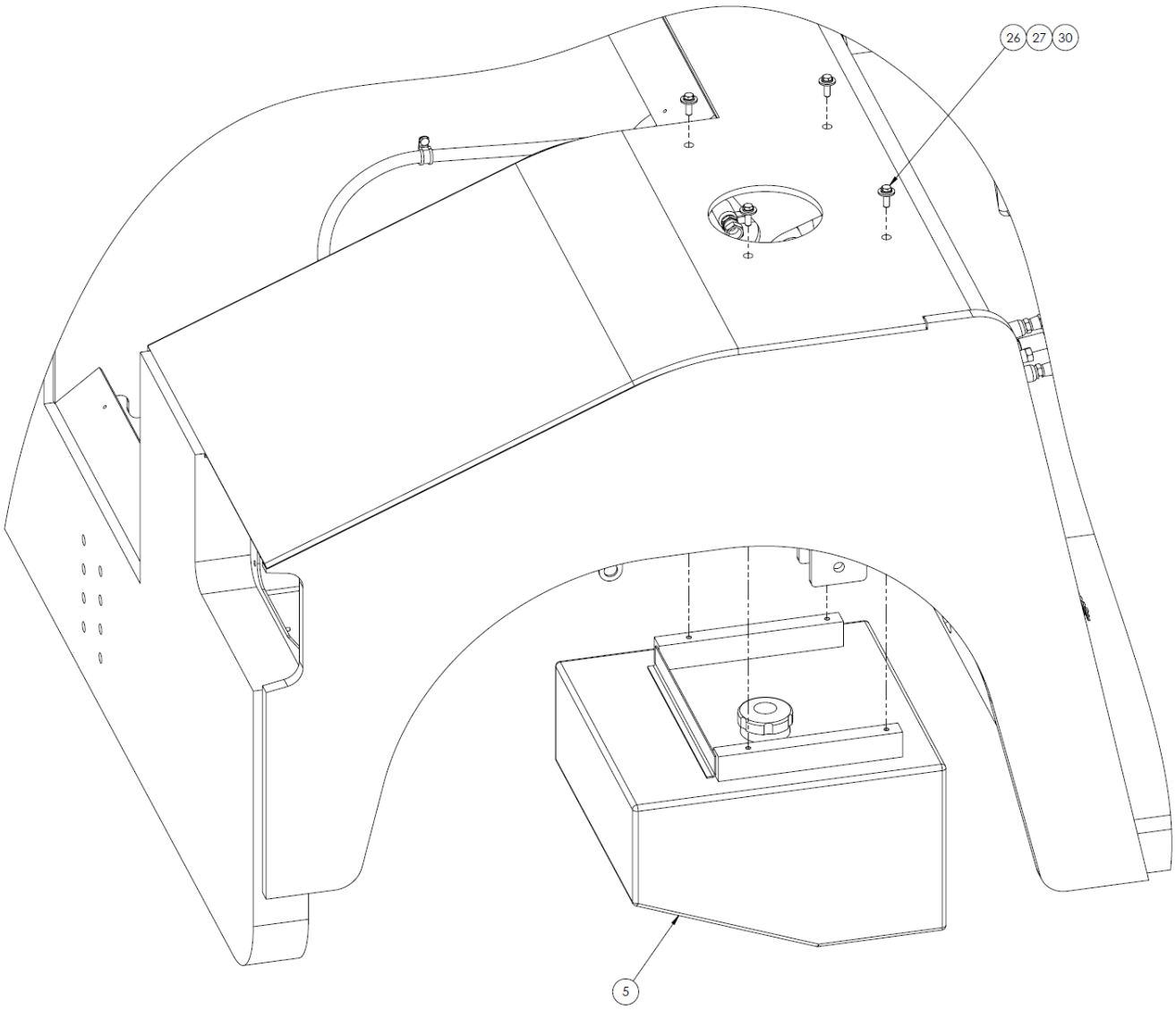




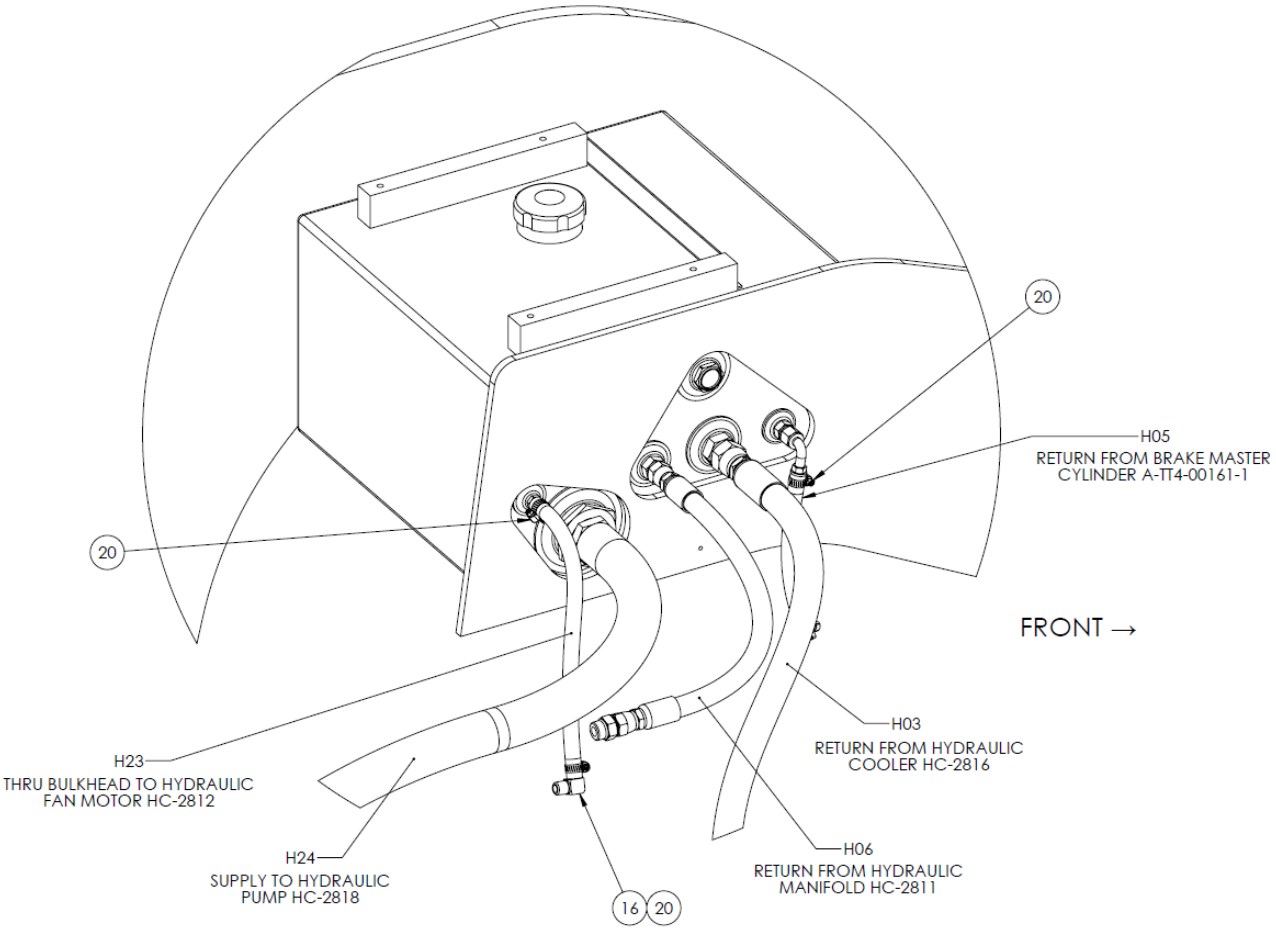
DETAIL B

11.8 HYDRAULIC SYSTEM *(continued)*

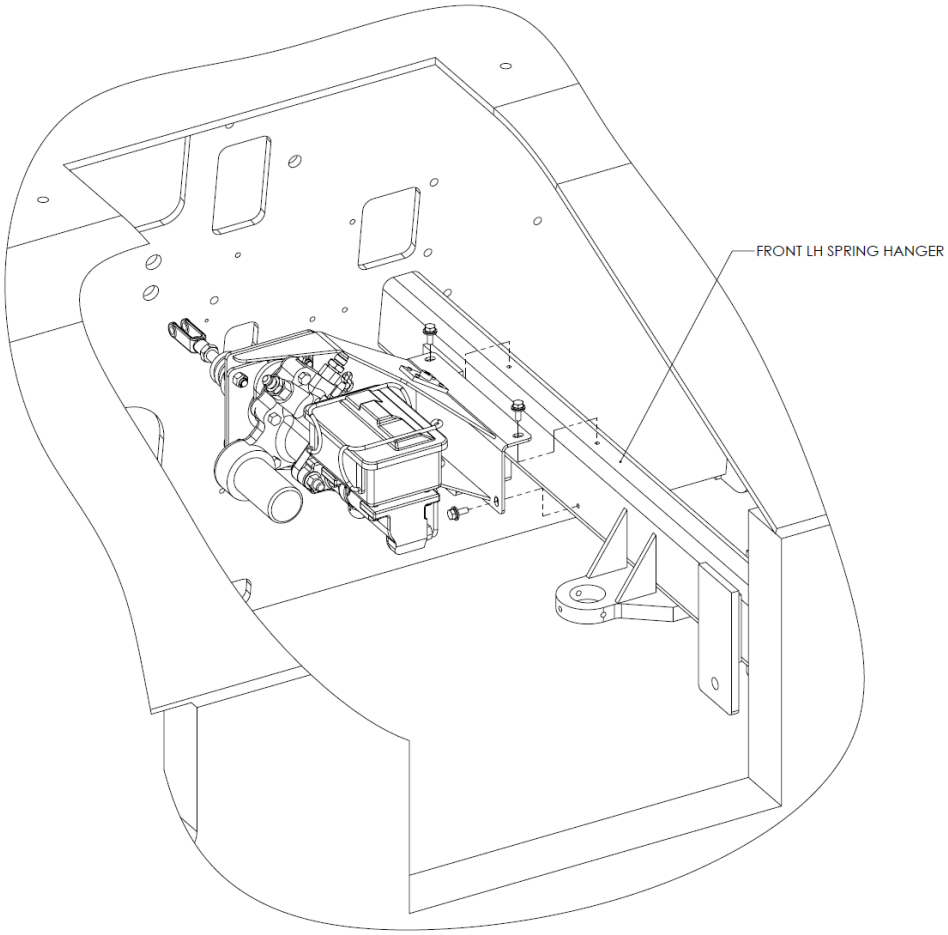


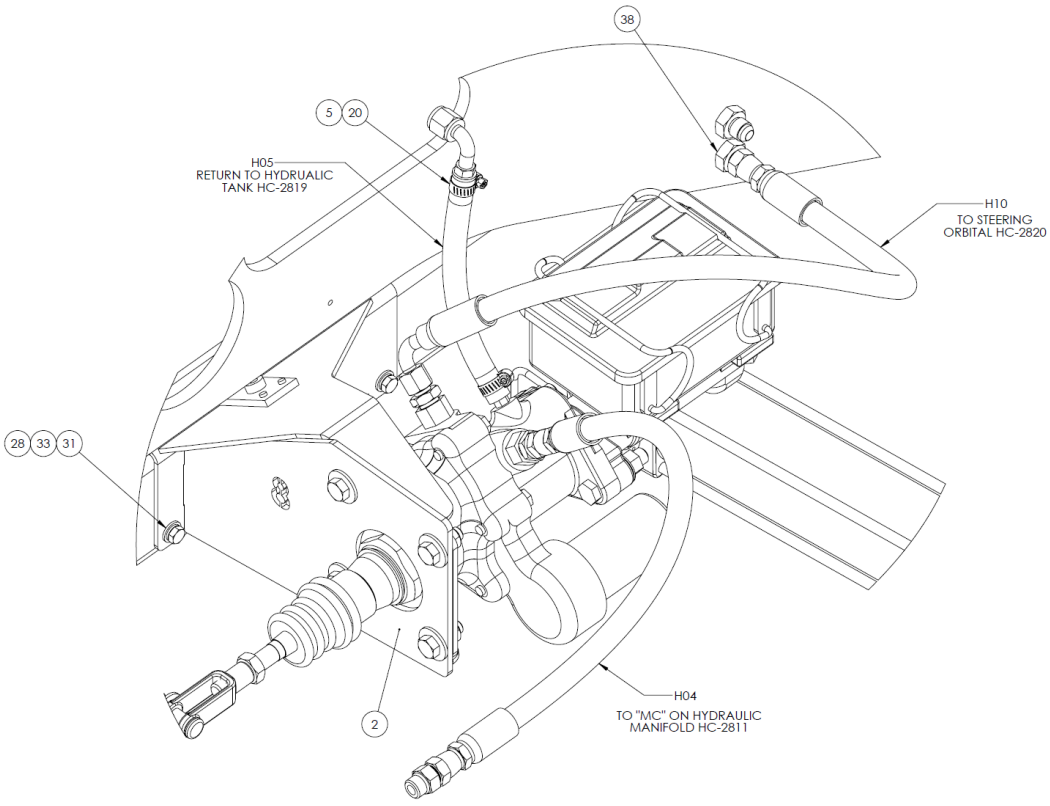


11.8 HYDRAULIC SYSTEM *(continued)*

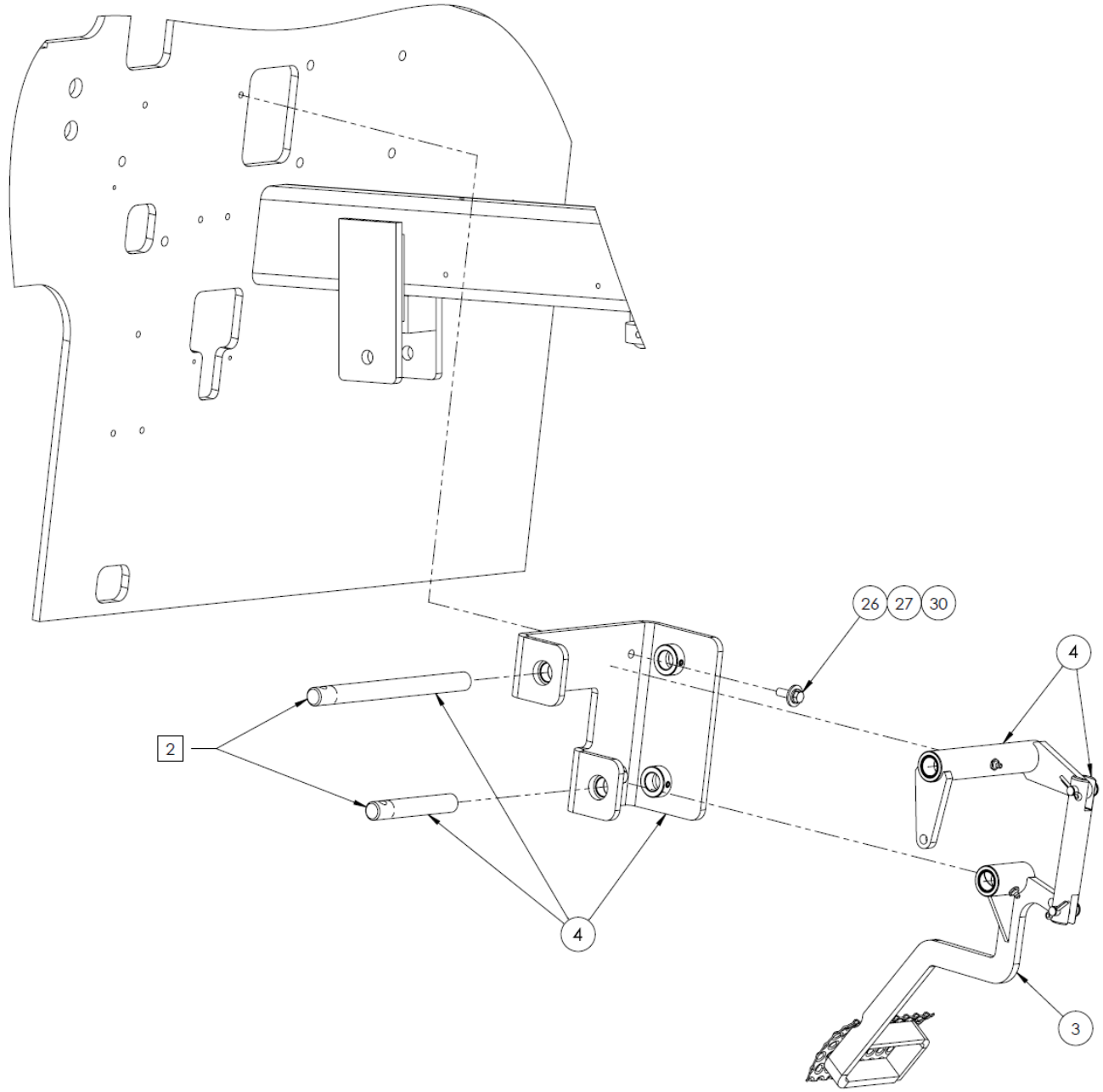


11.8 HYDRAULIC SYSTEM *(continued)*

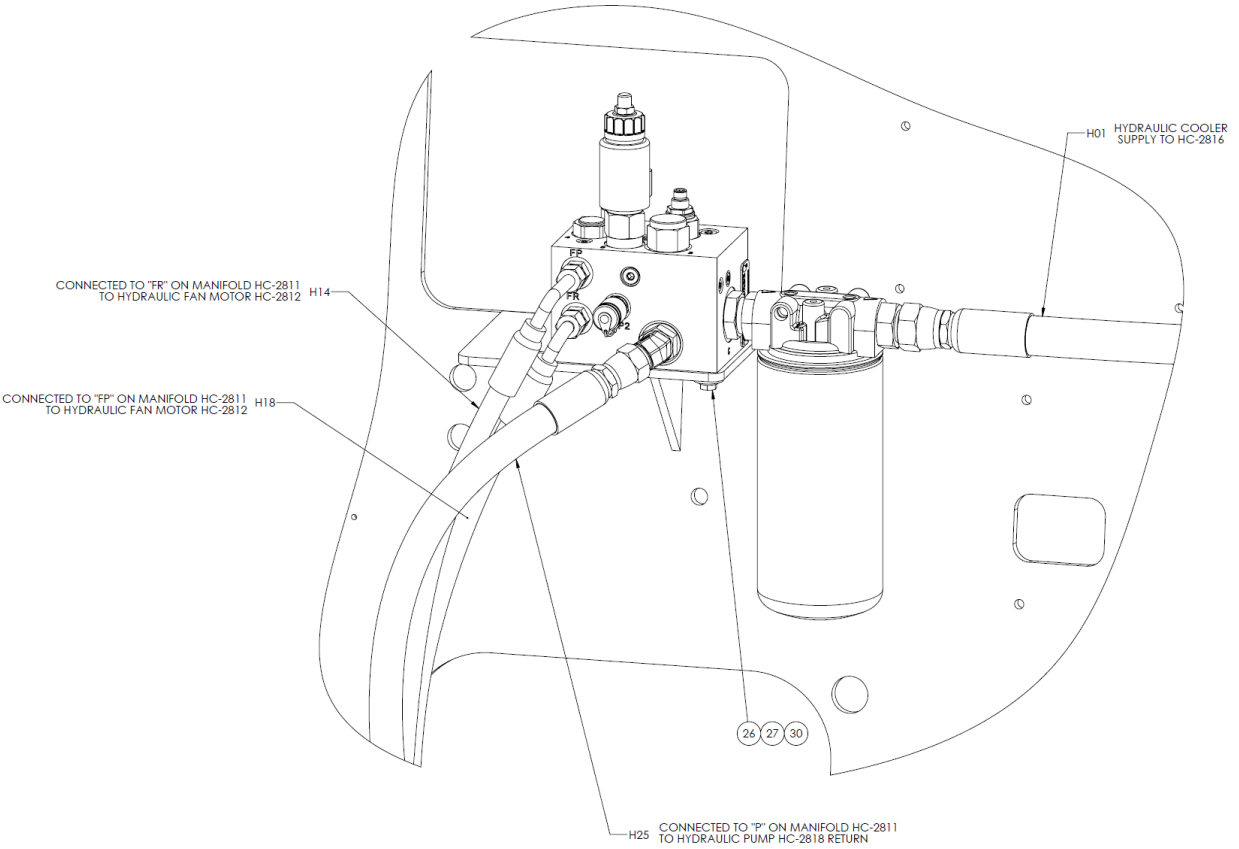


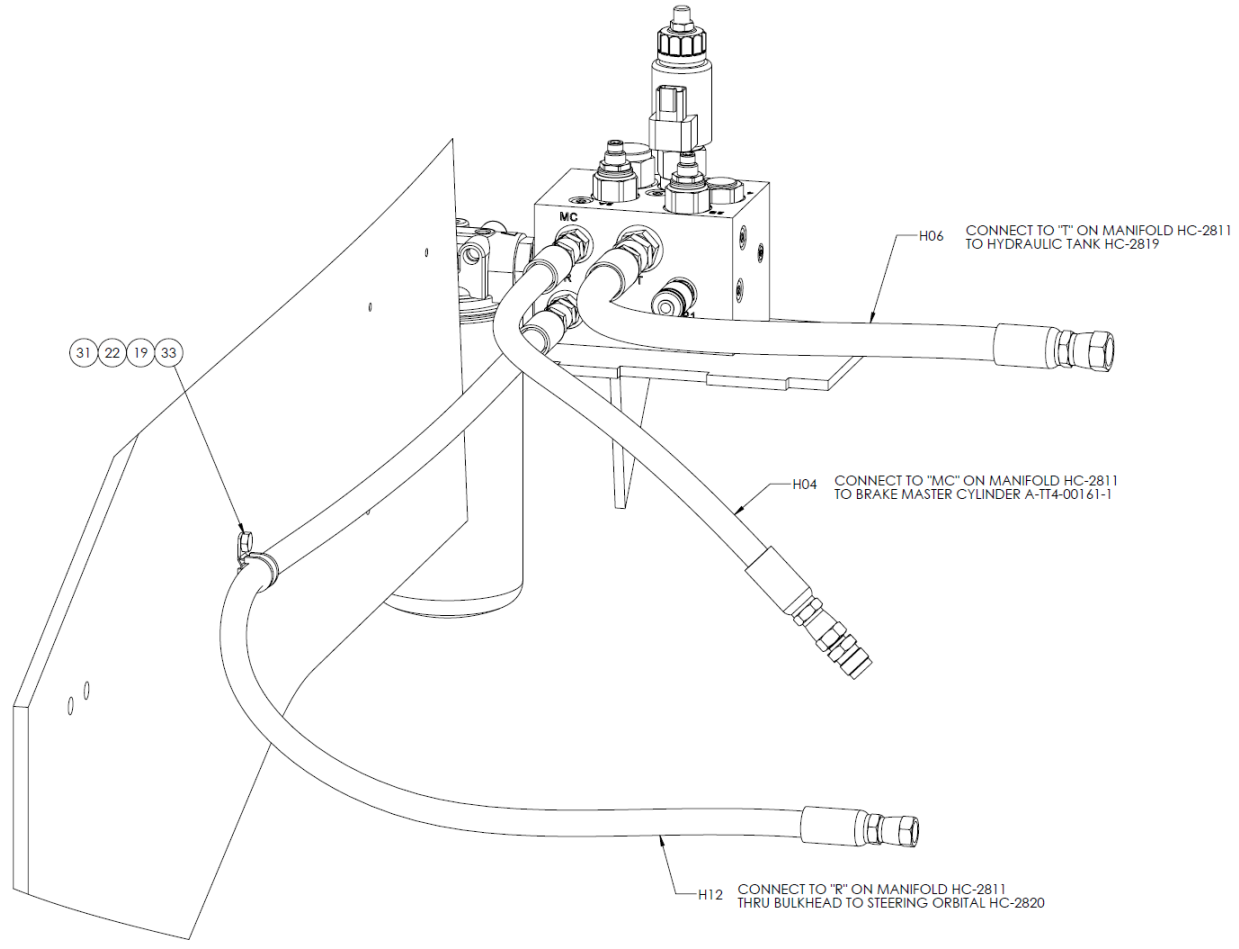


11.8 HYDRAULIC SYSTEM *(continued)*

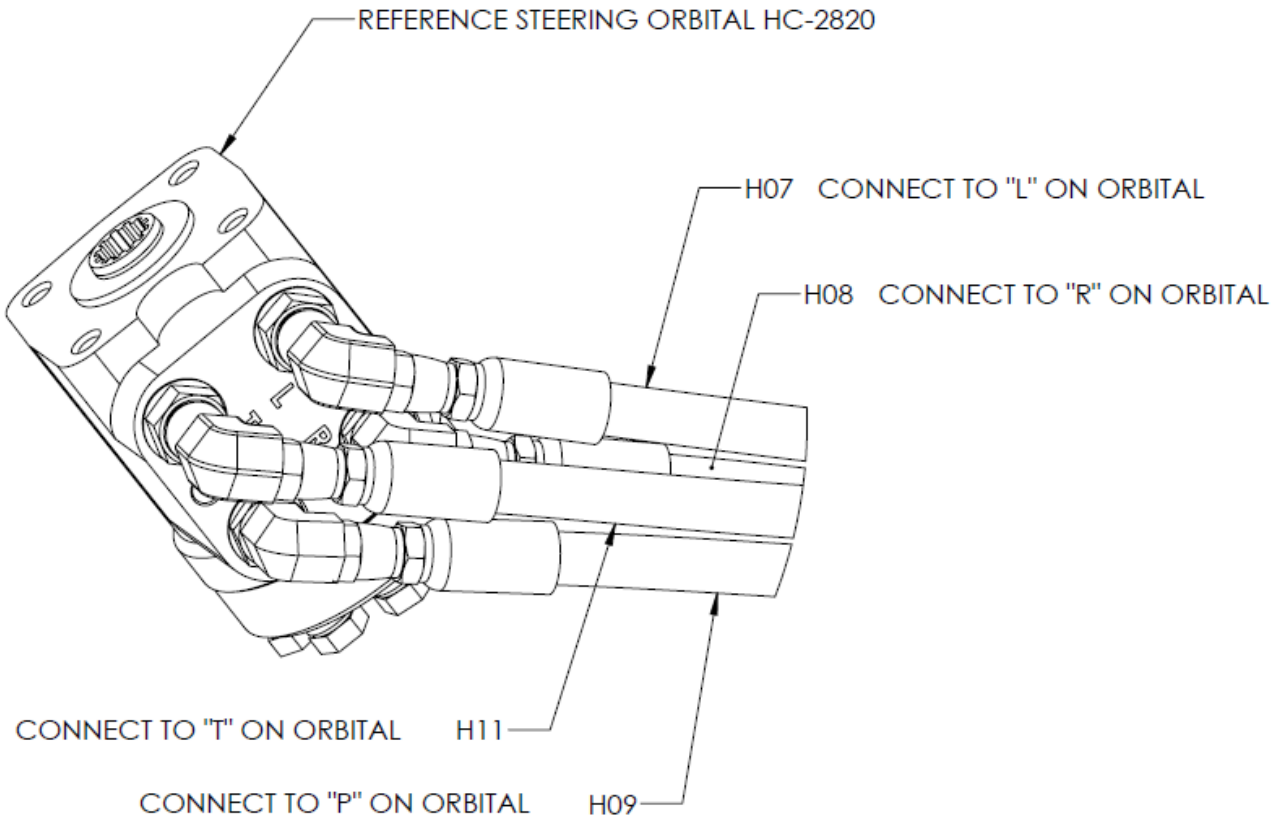


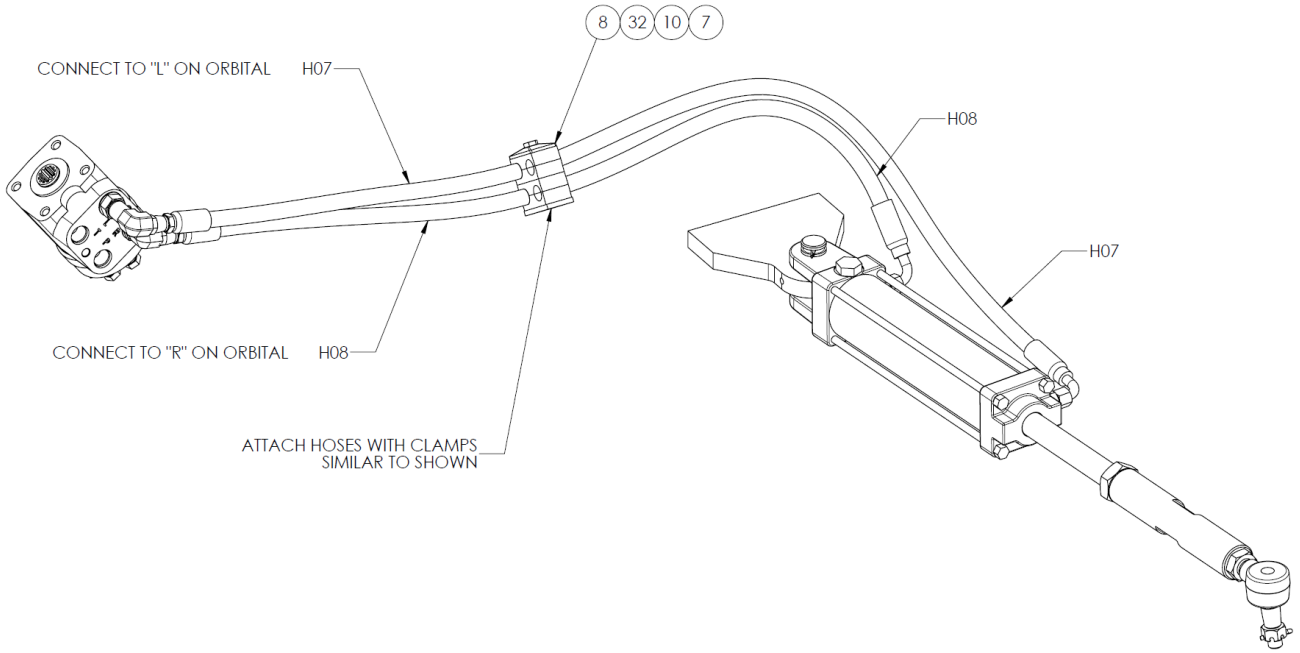
11.8 HYDRAULIC SYSTEM *(continued)*



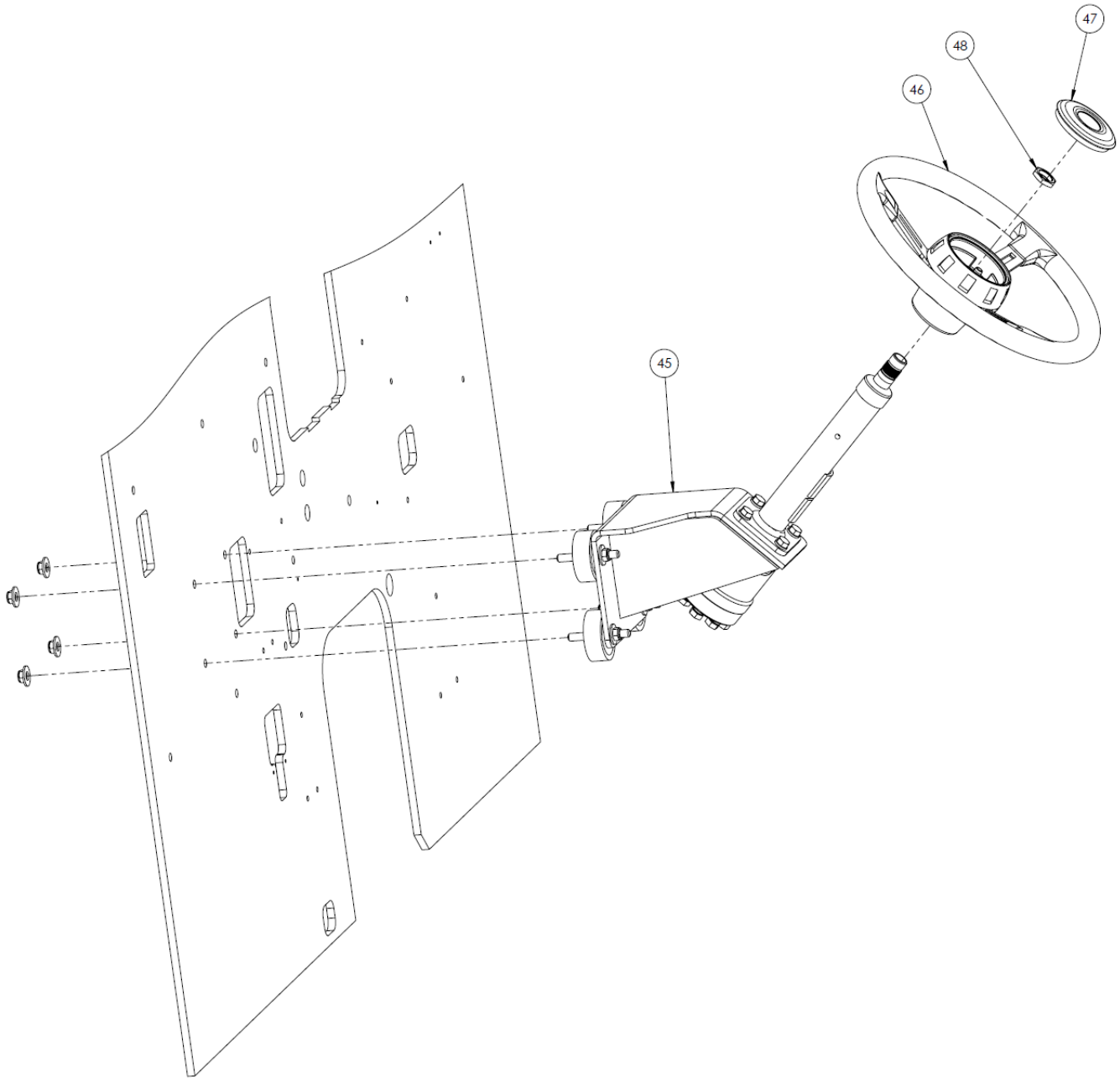


11.8 HYDRAULIC SYSTEM *(continued)*

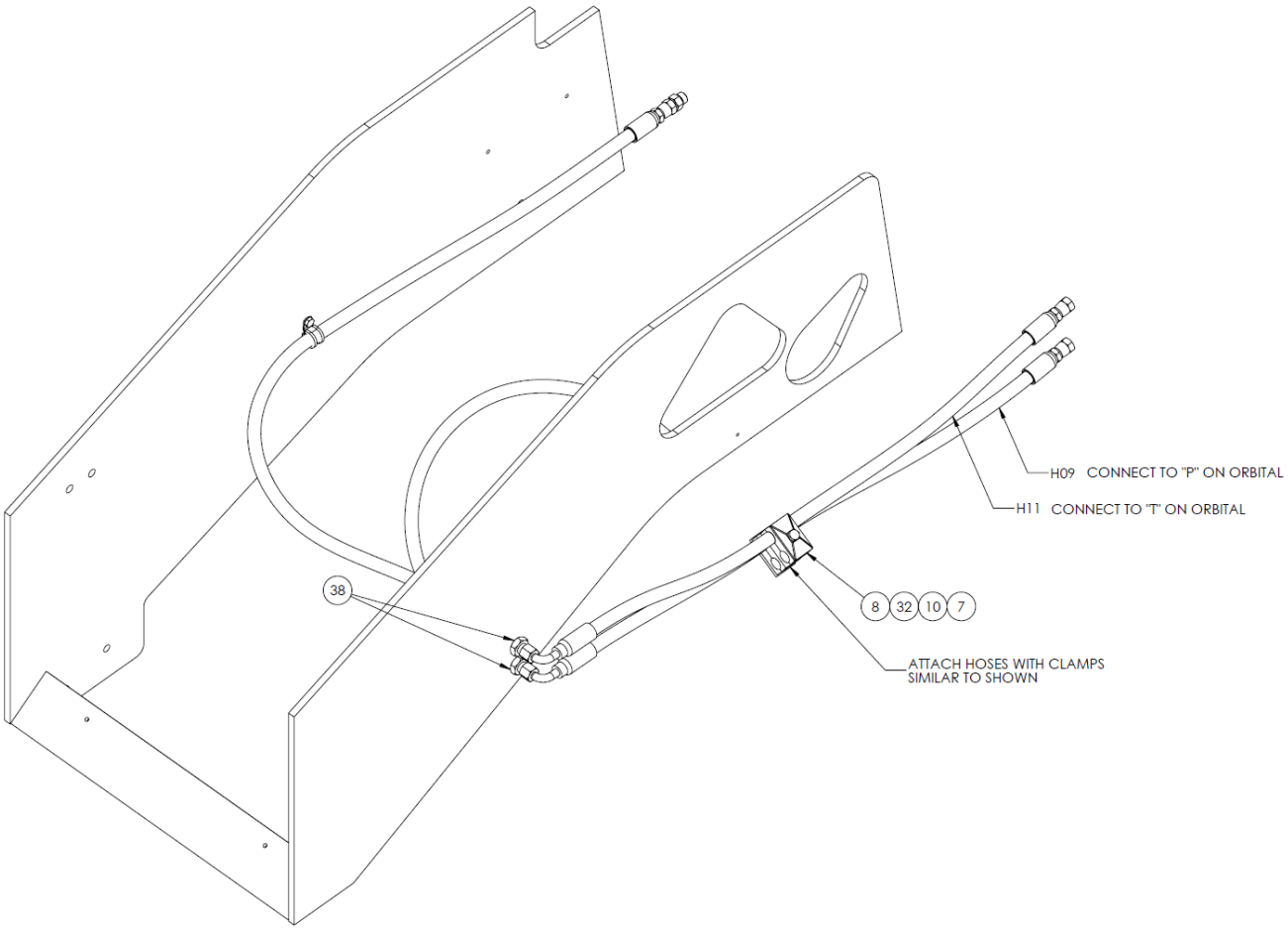


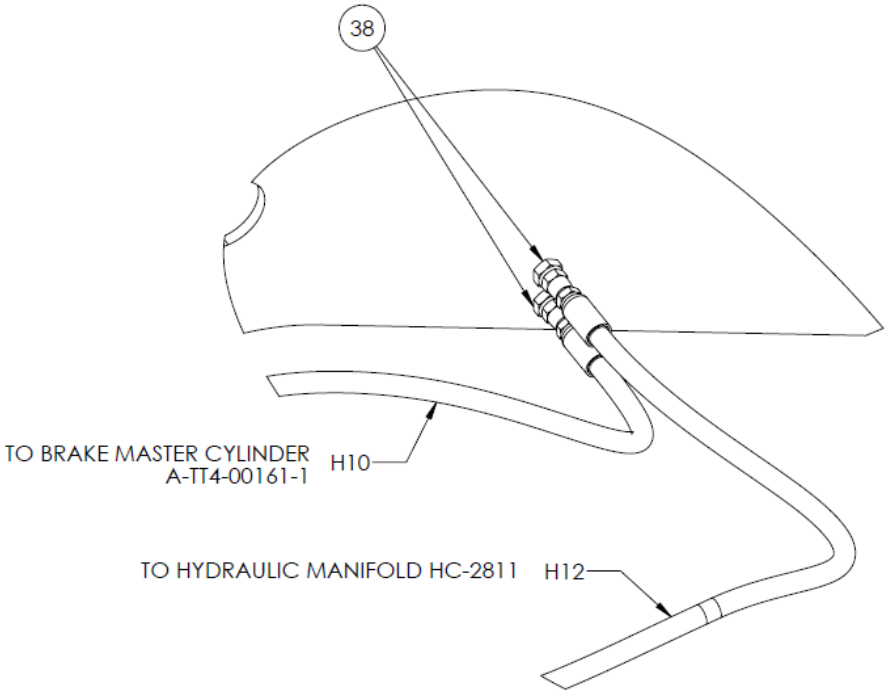


11.8 HYDRAULIC SYSTEM *(continued)*

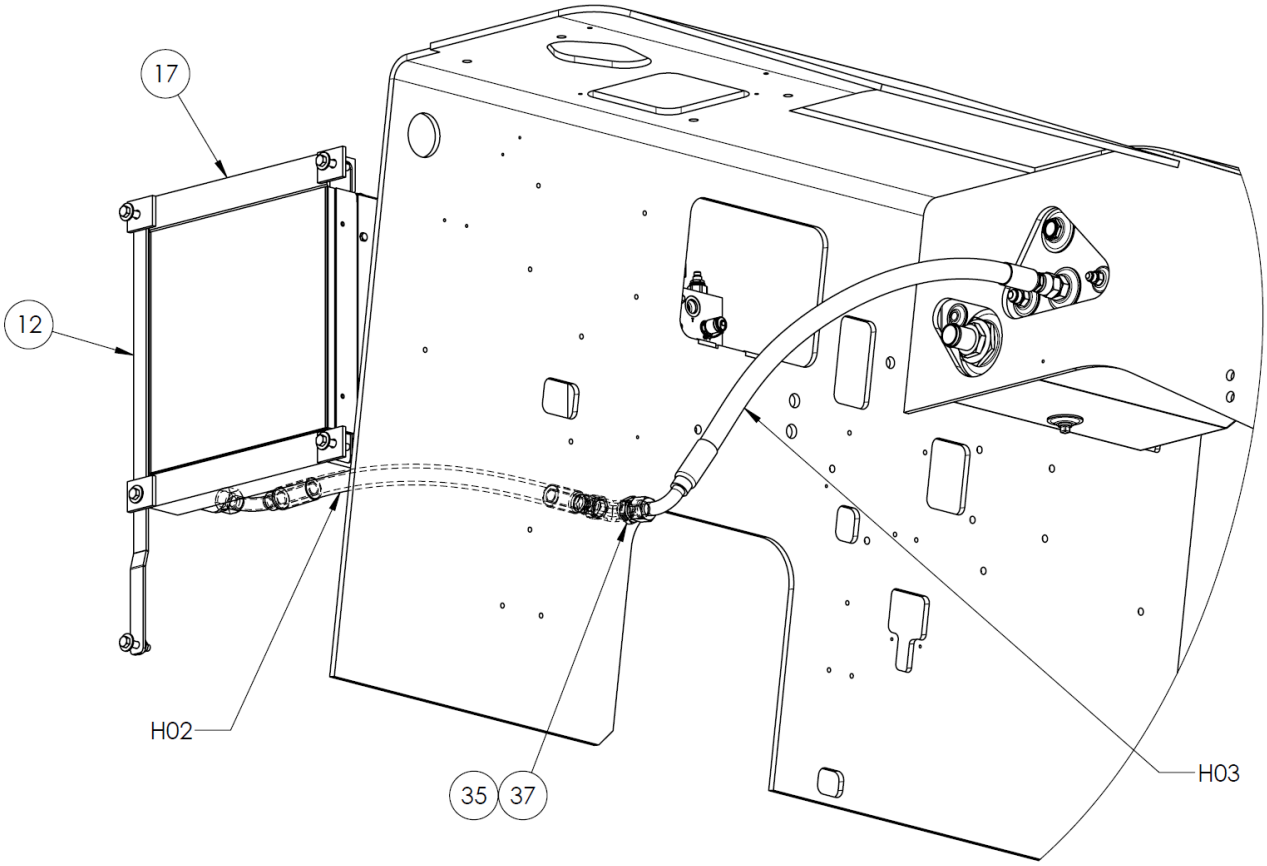


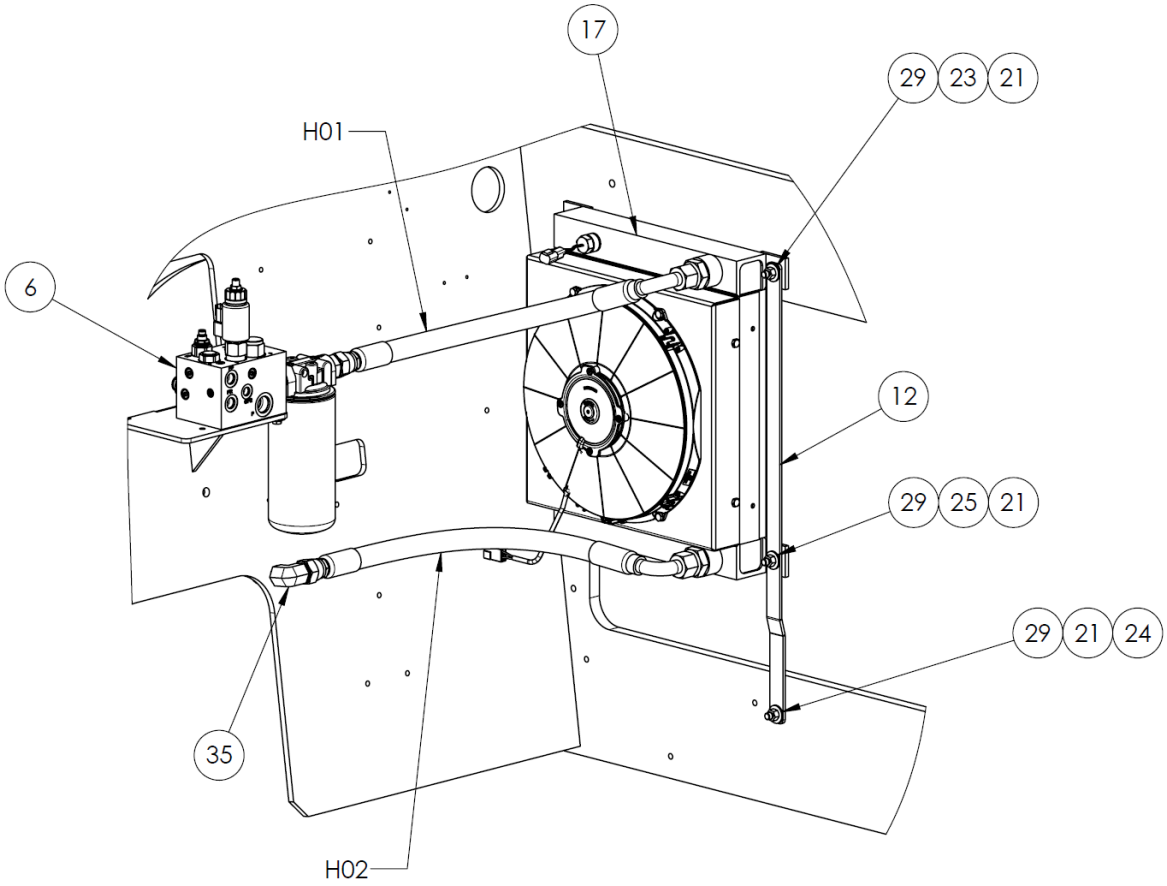
11.8 HYDRAULIC SYSTEM *(continued)*



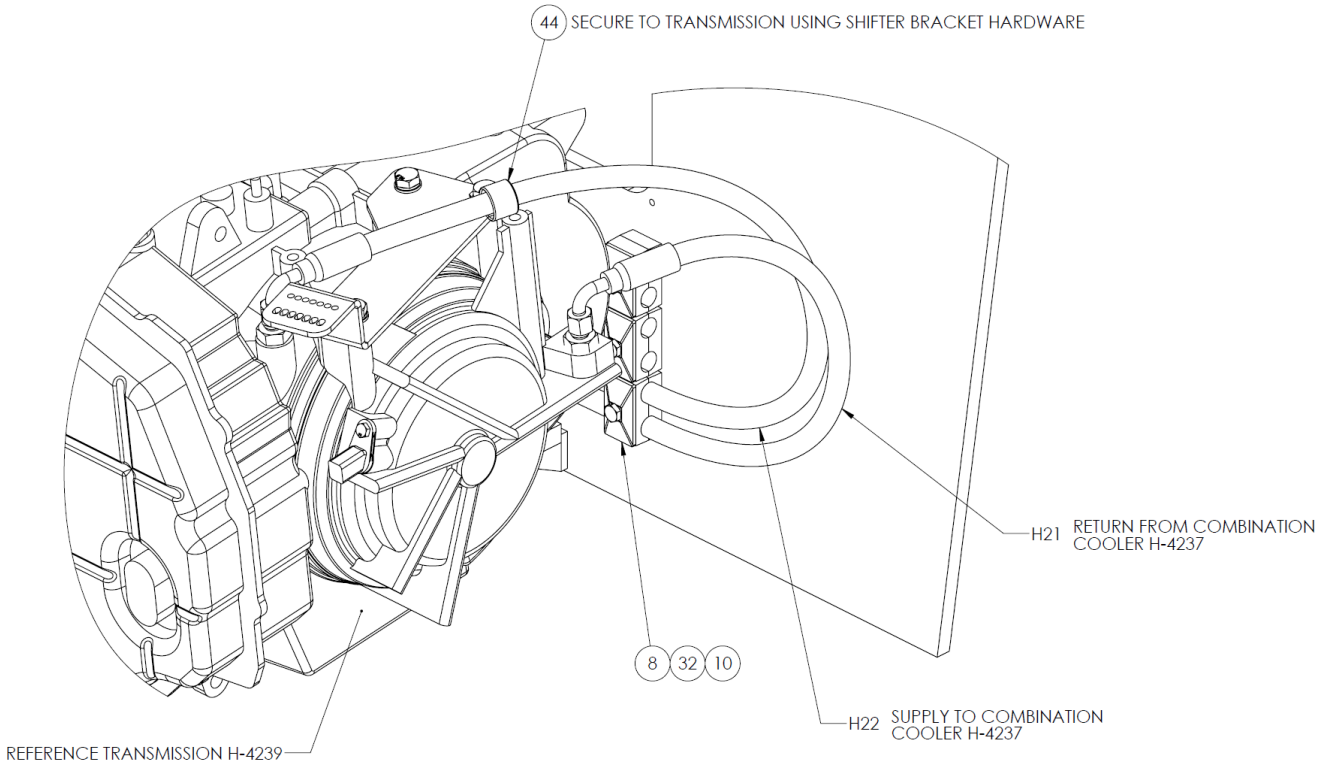


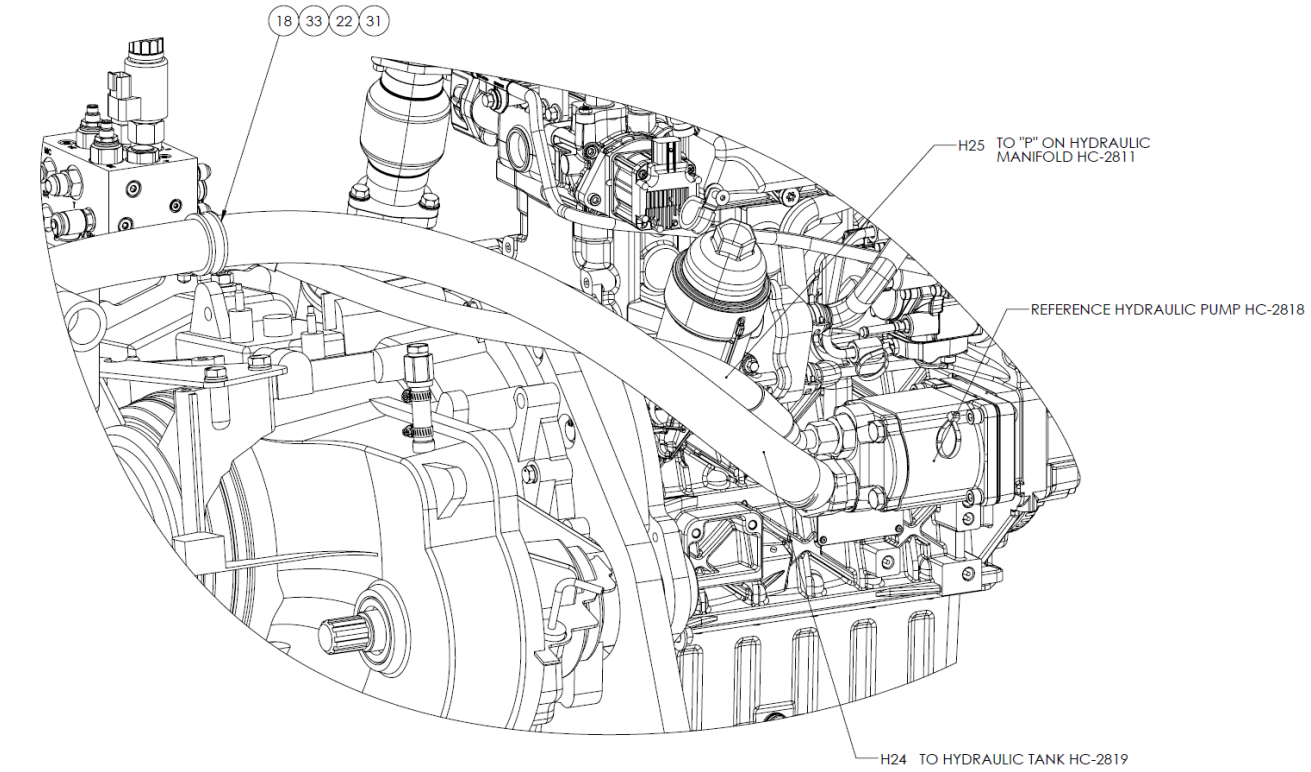
11.8 HYDRAULIC SYSTEM *(continued)*



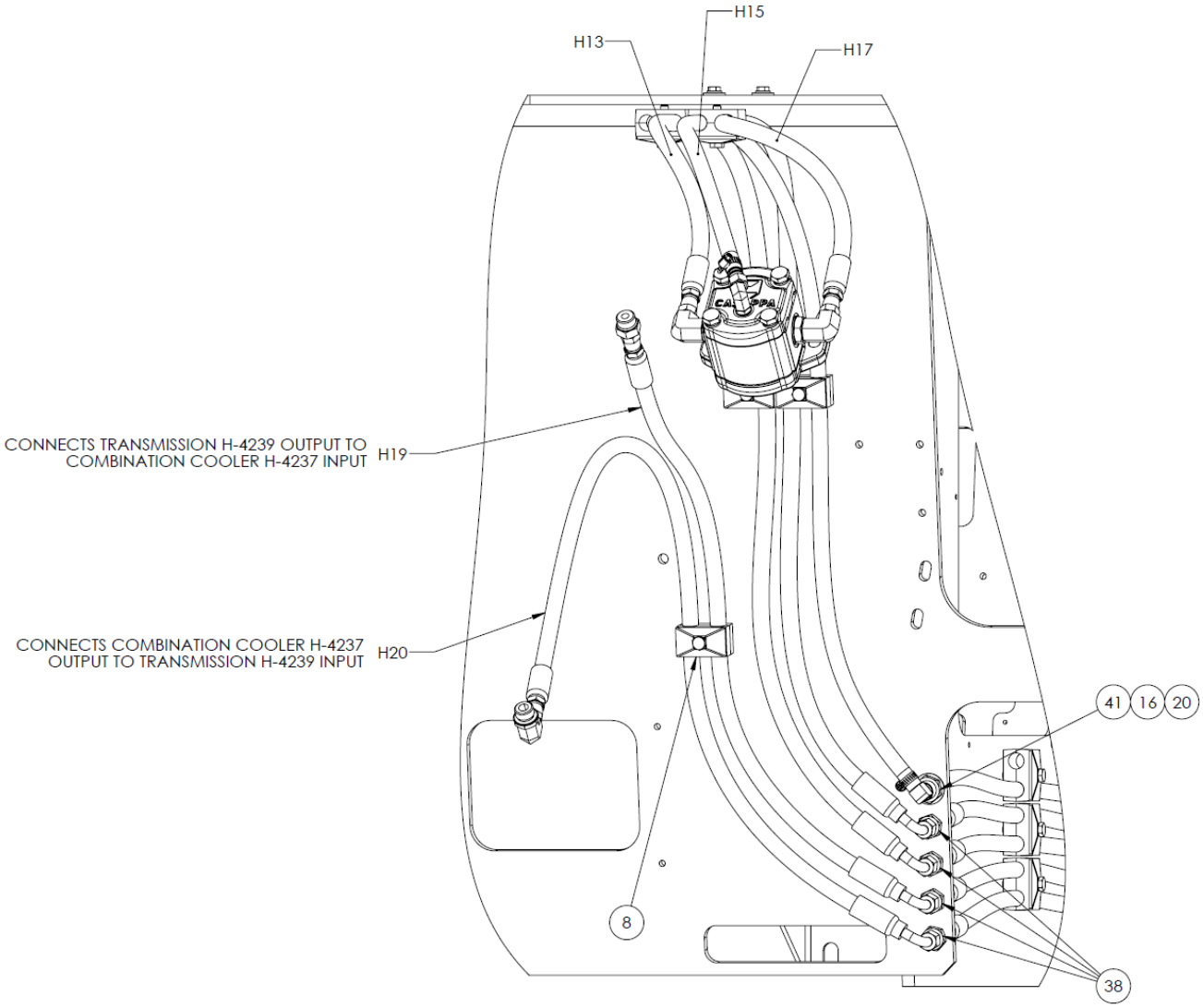


11.8 HYDRAULIC SYSTEM *(continued)*

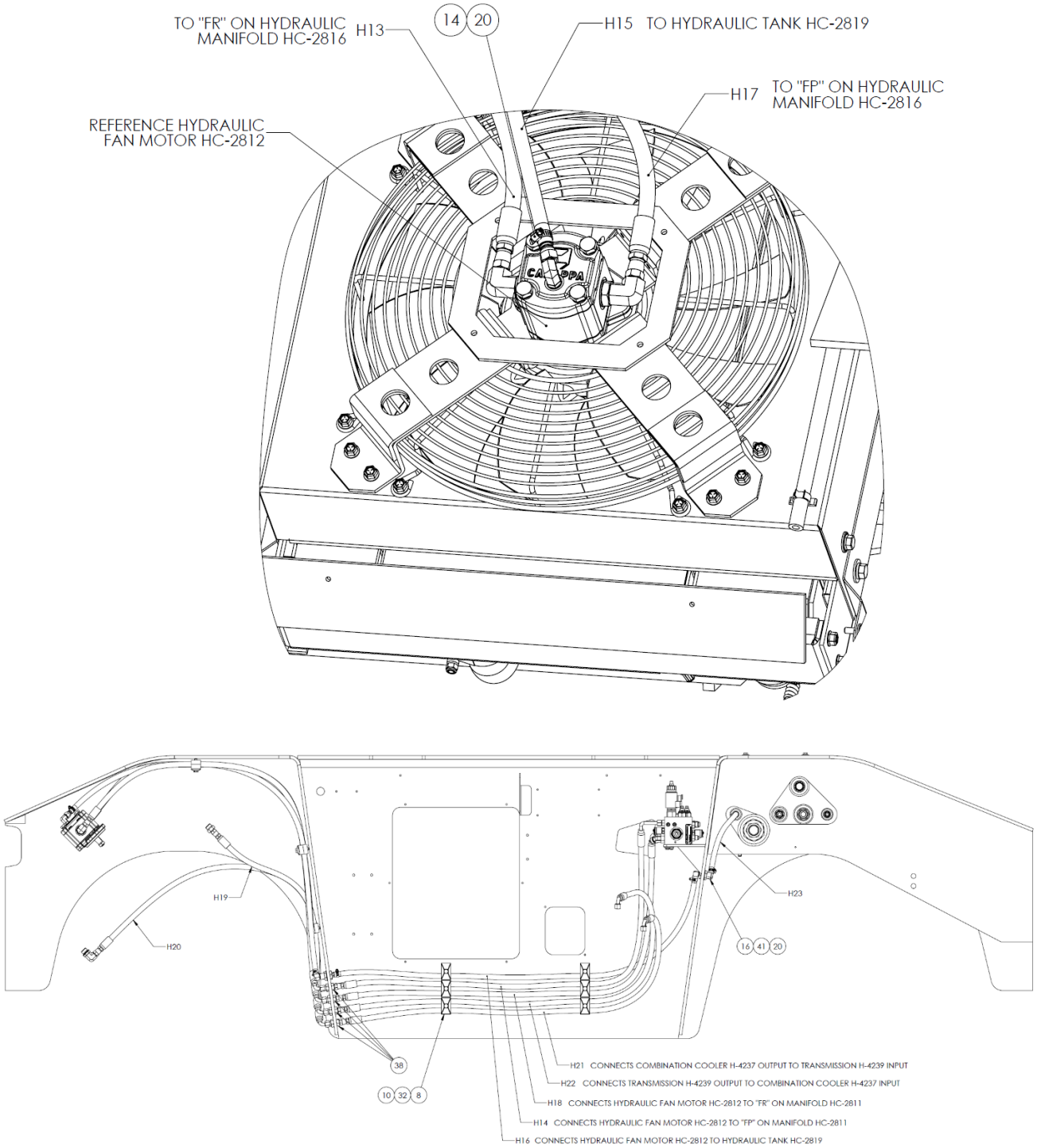




11.8 HYDRAULIC SYSTEM *(continued)*



11.8 HYDRAULIC SYSTEM *(continued)*



11.8 HYDRAULIC SYSTEM *(continued)*

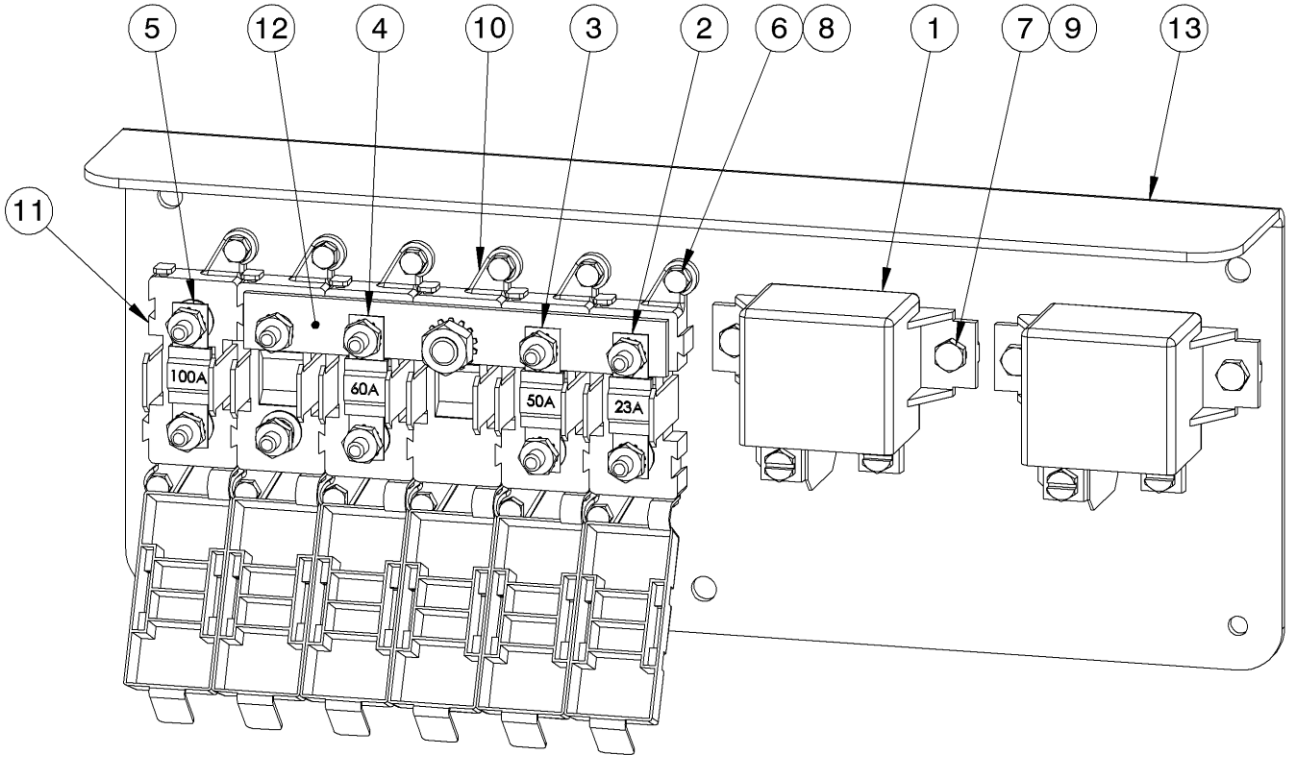
Parts List – Hydraulic System

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	N/A	ASY, STEER CYLINDER	1
2	Z-9838	ASY, MASTER CYLINDER	1
3	Z-9836	ASY, BRAKE PEDAL	1
4	N/A	ASY, BRAKE LINKAGE	1
5	Z-9831	ASY, HYDRAULIC TANK	1
6	Z-9818	ASY, HYDRAULIC MANIFOLD	1
7	NVSP-24-018-CB	HYD CLAMP - SAFETY PLATE	1
8	NVSP-24-017-CC	HYD CLAMP - COVER PLATE	12
9	NVSP-24-016-CC	HYD CLAMP STACK BOLT, 5/16	1
10	NVSP-24-015-CG	HYD CLAMP - DUAL 16MM SMOOTH	13
11	L-1025	HYD FLUID, ISO 32 MULTI VIS	12
12	J-6814-00	HYD COOLER SUPPORT BRACKET (P)	1
14	30682-6-6	FITTING, 6 JIC F, -6 HOSE BARB	1
15	05706B-104	ADAPTER, -06 BEAD X 1/4 M NPT	1
16	05706B-C04	ELBOW, 3/8 BARB, 1/4 NPT	3
17	HC-2816	HYDRAULIC COOLER	1
18	H-3521-23	CLAMP, CUSHIONED LOOP 1 3/4"	1
19	H-3521-04	CLAMP, CUSHIONED LOOP 9/16"	1
20	H-1426-01	HOSE CLAMP - .38" - .87"	8
21	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	5
22	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	2
23	G-1420-107020	BOLT, 3/8-16 X 2.0" HEX HD GR 8	3
24	G-1420-107016	BOLT, 3/8-16 X 1.75" HEX HD GR 8	1
25	G-1420-107012	BOLT, 3/8-16 X 1.25" HEX HD GR 8	1
26	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	10
27	G-1251-1060R	LOCKWASHER, 5/16 REGULAR	10
28	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	4
29	G-1250-1070W	FLATWASHER, 3/8 WIDE	10
30	G-1250-1060W	FLATWASHER, 5/16 WIDE	10
31	G-1250-1050N	FLATWASHER, 1/4 NARROW	6
32	G-1100-106014	BOLT, 5/16-18 X 1-1/2" LG. HEX HD GR 5	12
33	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	6
34	ET00-08-001-CA	FAN TEMP SWITCH	1
35	12 WETX-S	BULKHEAD ELBOW, 12 JIC M	1
36	C5515X6X8	ELBOW, -06 M JIC X -08 M ORB	1
37	C5924X12	BULKHEAD NUT, 12 JIC	1
38	6 WTX-WLN-S	BULKHEAD, 6 JIC M	6
39	C5315X6X8	ADAPTER, -08 M ORB X -06 M JIC	1
40	C5315X12X16	ADAPTER, -16 M SAE ORB X -12 M JIC	2
41	A-TT4-00280	BULKHEAD FITTING	2
42	A-TT10-00826	CYLINDER BEARING	1
43	K-5316	KIT, HYDRAULIC HOSES, TTR-8	1
44	G-1847-14	CUSHION LOOP CLAMP, 7/8", Ø.406 MTG HOLE	1
45	Z-12560	ASY, STEERING COLUMN	1
46	A-TN4-00809E	STEERING WHEEL, 14"	1
47	A-TT10-00811	HORN BUTTON	1
48	A-TT10-00813	WHEEL NUT, 13/16-20 UNEF	1

12.0 ELECTRICAL

12.1 FUSE AND RELAY PANEL SUB

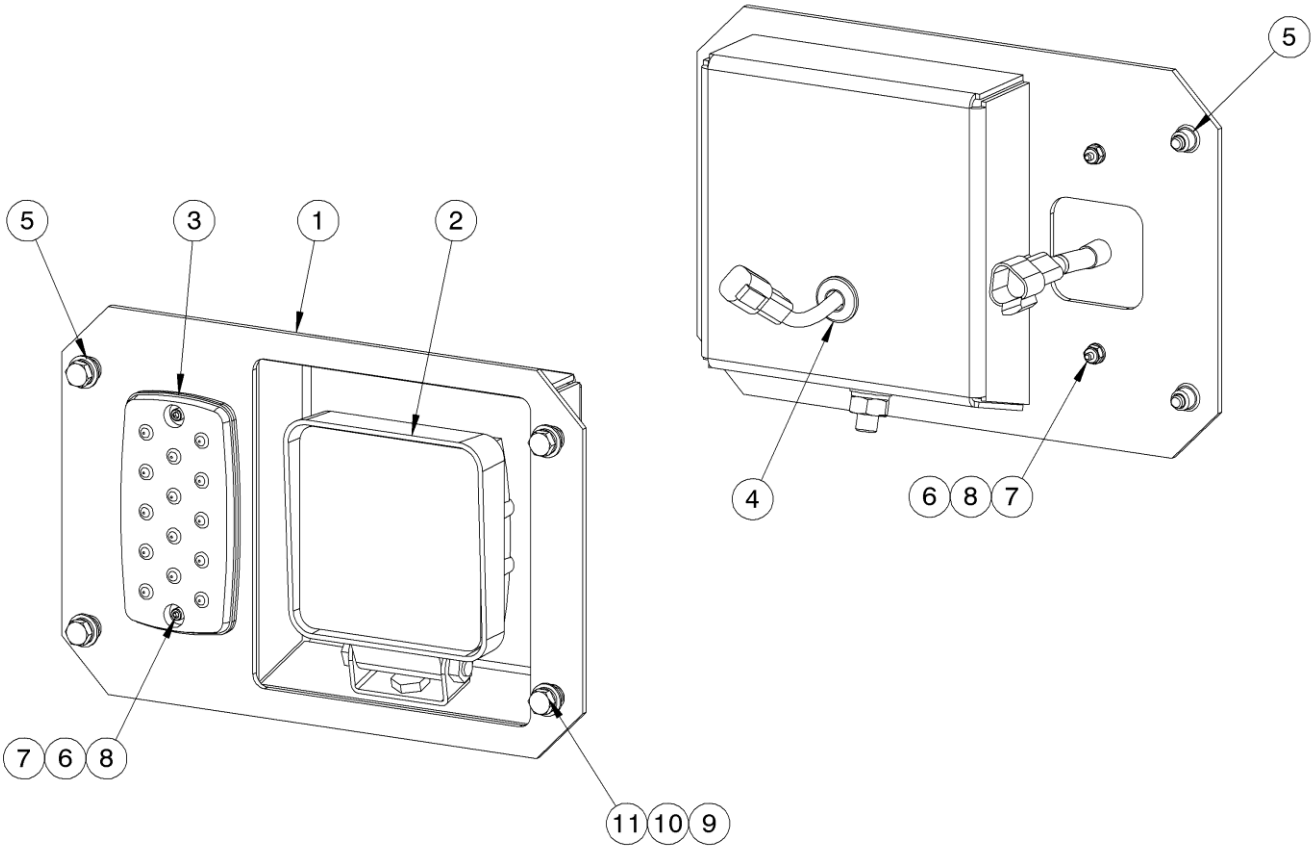


Parts List - Fuse and Relay Panel Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	7A5012	ACS RELAY	2
2	EC-3146-01	23A FUSE, MIDI/AMI	1
3	EC-3146-04	50A FUSE, MIDI/AMI	1
4	EC-3146-05	60A FUSE, MIDI/AMI	1
5	EC-3146-08	100A FUSE, MIDI/AMI	1
6	G-1150-102004	SCREW, #8-32 X 1/2" LG HEX HD MACHINE	12
7	G-1150-103506	SCREW, #10-32 X 3/4" LG HEX HD MACHINE	4
8	G-1202-1020	STOPNUT, #8-32 ELASTIC	12
9	G-1202-1030	STOPNUT, #10-24 ELASTIC	4
10	NVSP-05-024-CA	INPUT LMI FUSE MODULE	1
11	NVSP-05-025-CA	LMI FUSE HOLDER	5
12	NVSP-05-026-CA	LMI BUSBAR	1
13	S-3354-00	BRKT, FUSE AND RELAY MTG	1

12.2 HEADLIGHT POCKET A

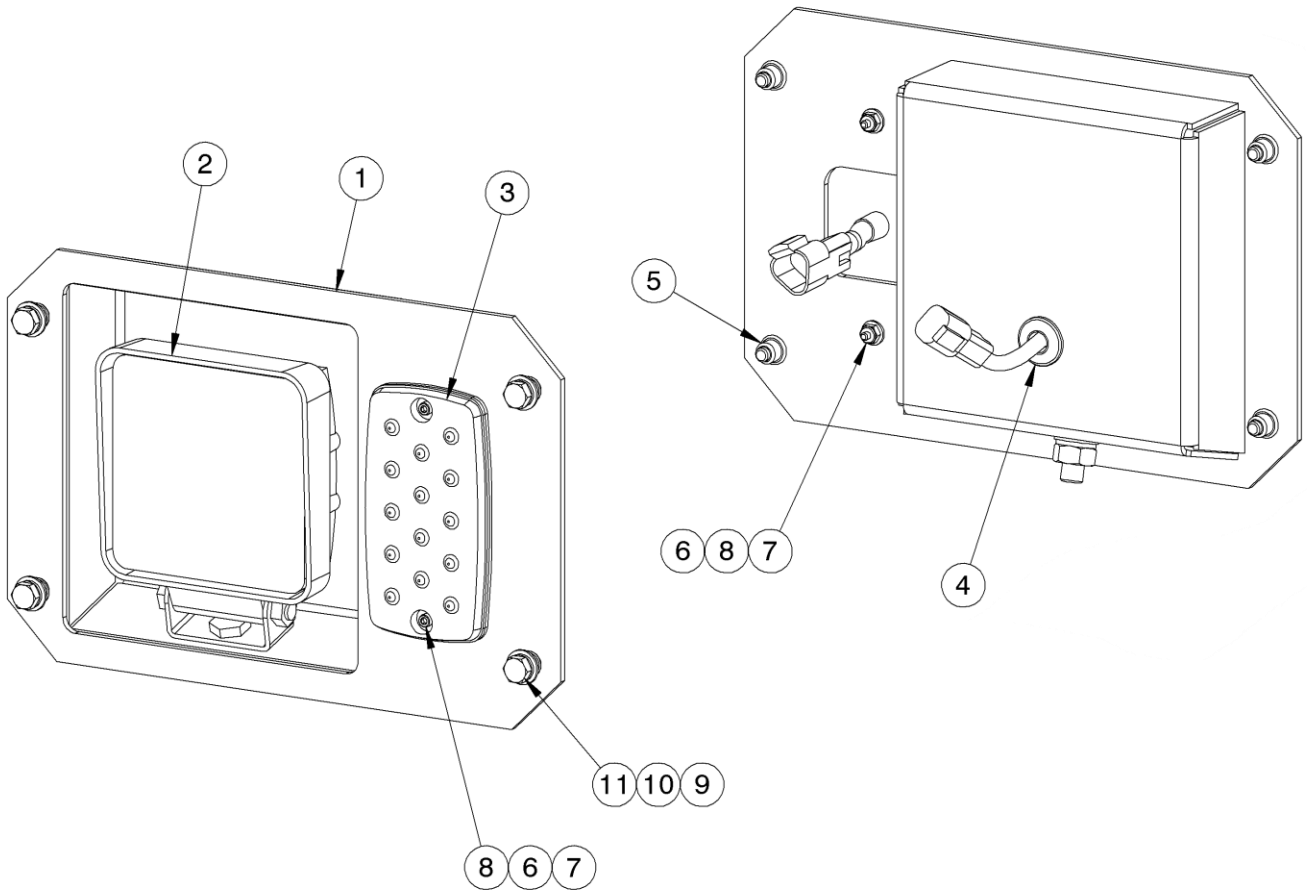


Parts List – Headlight Pocket A

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	ET12-02-001-SB	HEADLIGHT POCKET, ETT12G	1
2	Z-9825	ASY, HEADLIGHT W/CONNECTOR	1
3	Z-9826	ASY, TURN IND W/CONNECTOR	1
4	AE-OPT-0320-E	GROMMET, Ø5/8 HIGH TEMP	1
5	G-1439-1050-S	NUTSERT, THIN WALL 1/4-20	4
6	G-1250-1020N	FLATWASHER, #8 NARROW	2
7	G-1202-1020	STOPNUT, #8-32 ELASTIC	2
8	G-1151-102205	SCR, SOC HD CAP #8-32 X 5/8	2
9	G-1503-1050N	FLATWASHER. 1/4 SST NARROW	4
10	G-1502-1050R	LOCKWASHER, 1/4 SST REGULAR	4
11	G-1112-105010	BOLT, 1/4-20 X 1.0" LG SST HEX HD	4

12.3 HEADLIGHT POCKET B

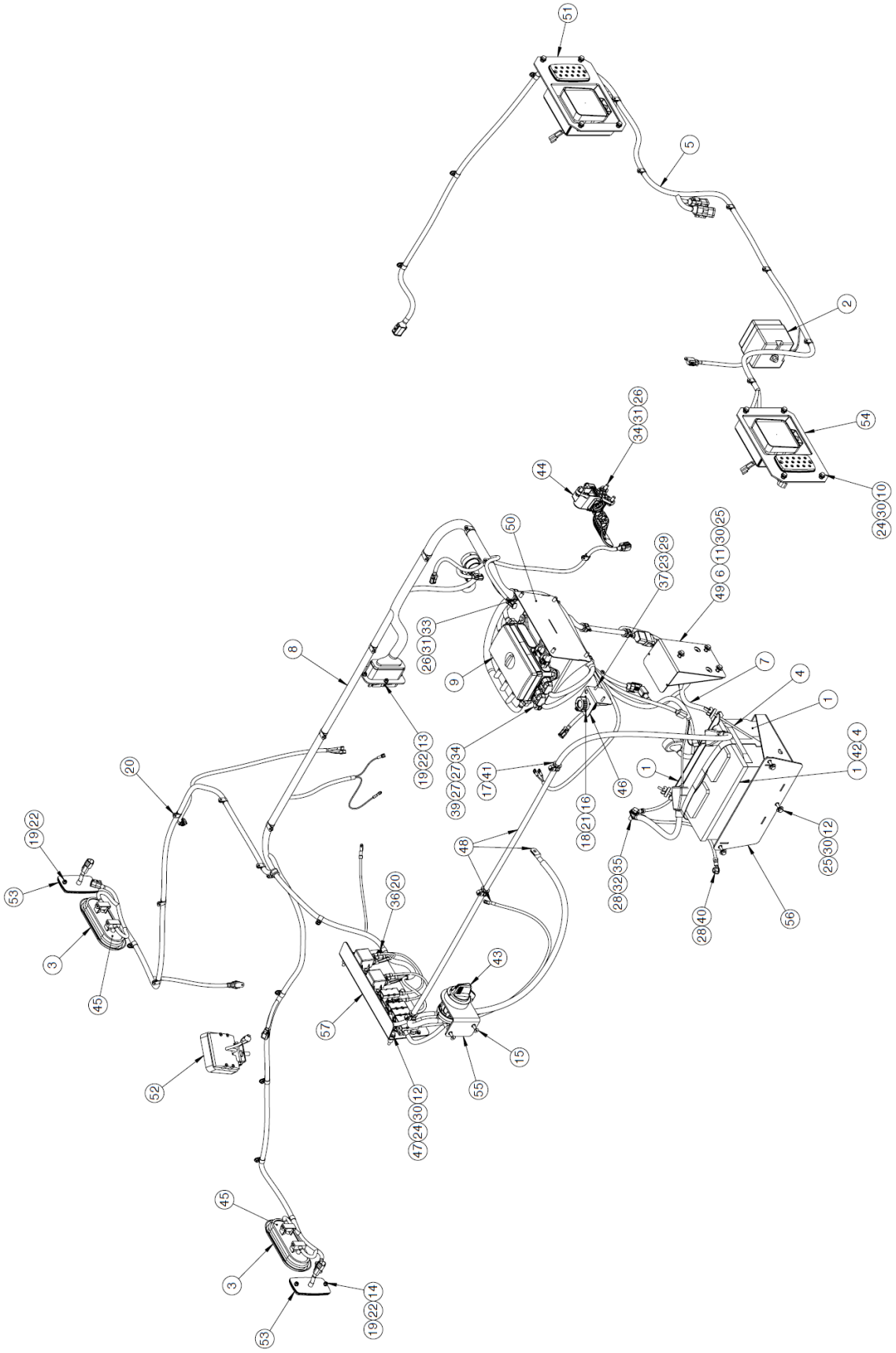


Parts List – Headlight Pocket B

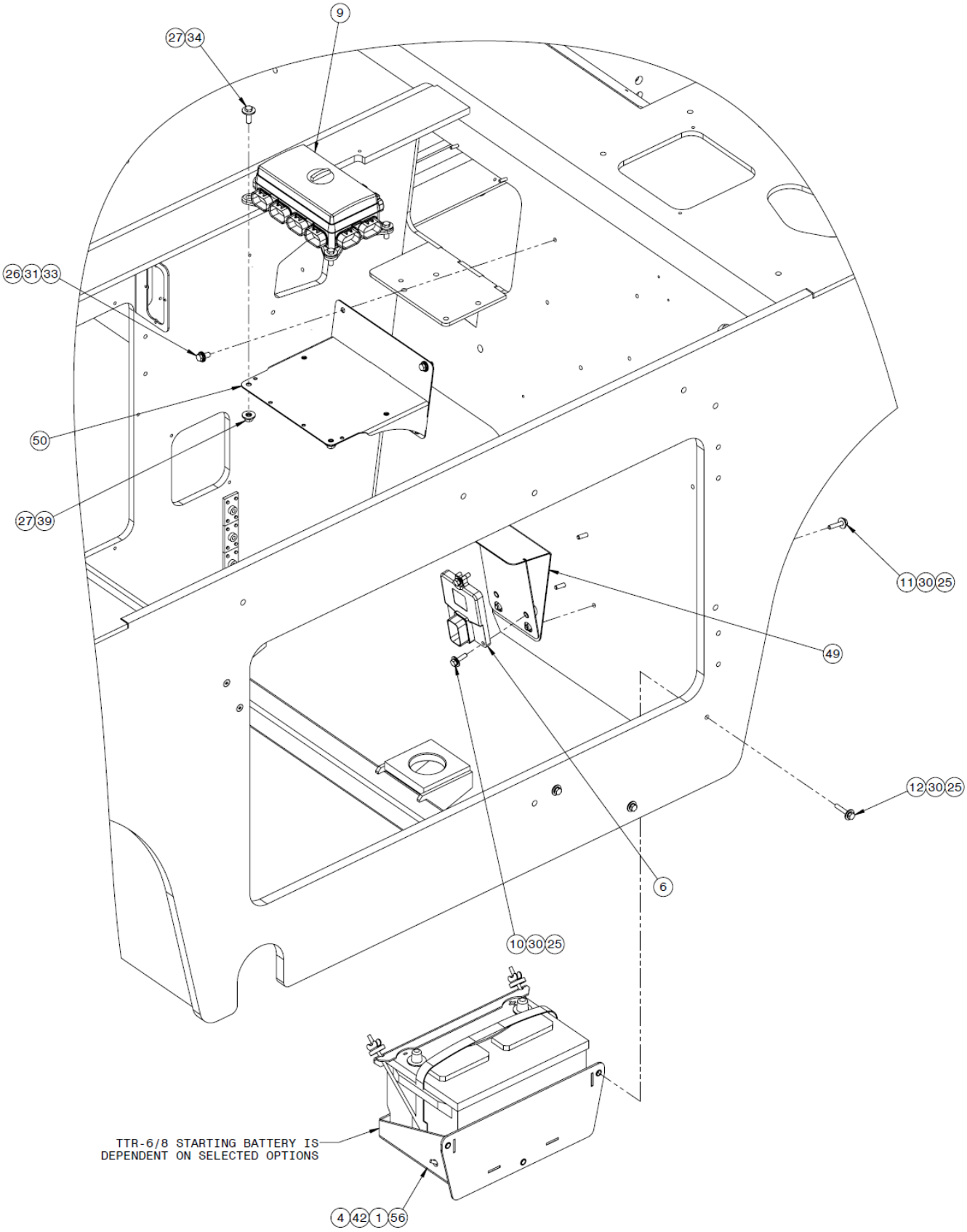
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	ET12-02-001-SA	HEADLIGHT POCKET (WP)	1
2	Z-9825	ASY, HEADLIGHT W/CONNECTOR	1
3	Z-9826	ASY, TURN IND W/CONNECTOR	1
4	AE-OPT-0320-E	GROMMET, Ø5/8 HIGH TEMP	1
5	G-1439-1050-S	NUTSERT, THIN WALL 1/4-20	4
6	G-1250-1020N	FLATWASHER, #8 NARROW	2
7	G-1202-1020	STOPNUT, #8-32 ELASTIC	2
8	G-1151-102205	SCR, SOC HD CAP #8-32 X 5/8	2
9	G-1503-1050N	FLATWASHER. 1/4 SST NARROW	4
10	G-1502-1050R	LOCKWASHER, 1/4 SST REGULAR	4
11	G-1112-105010	BOLT, 1/4-20 X 1.0" LG SST HEX HD	4

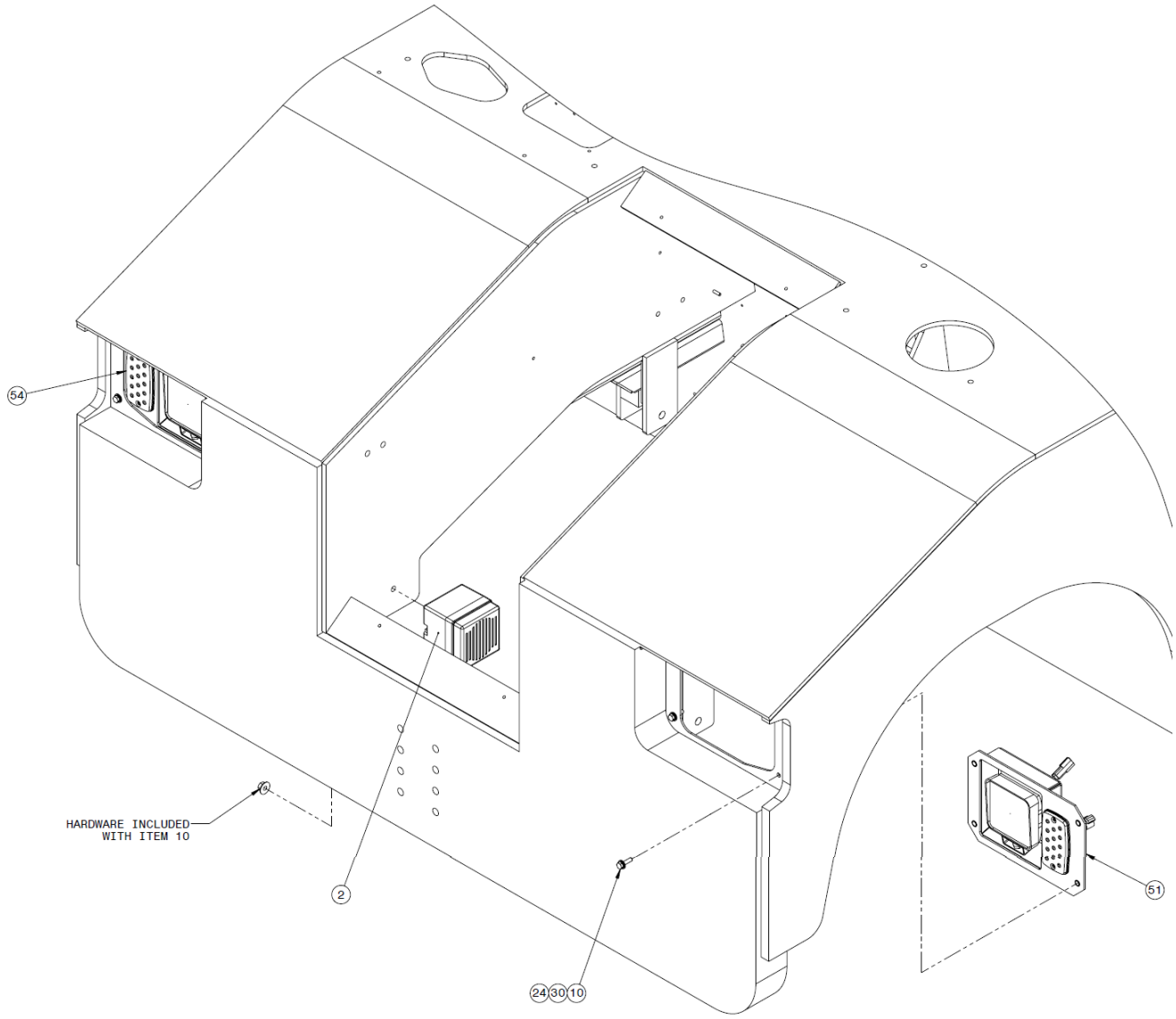
12.4 ELECTRICAL SYSTEM



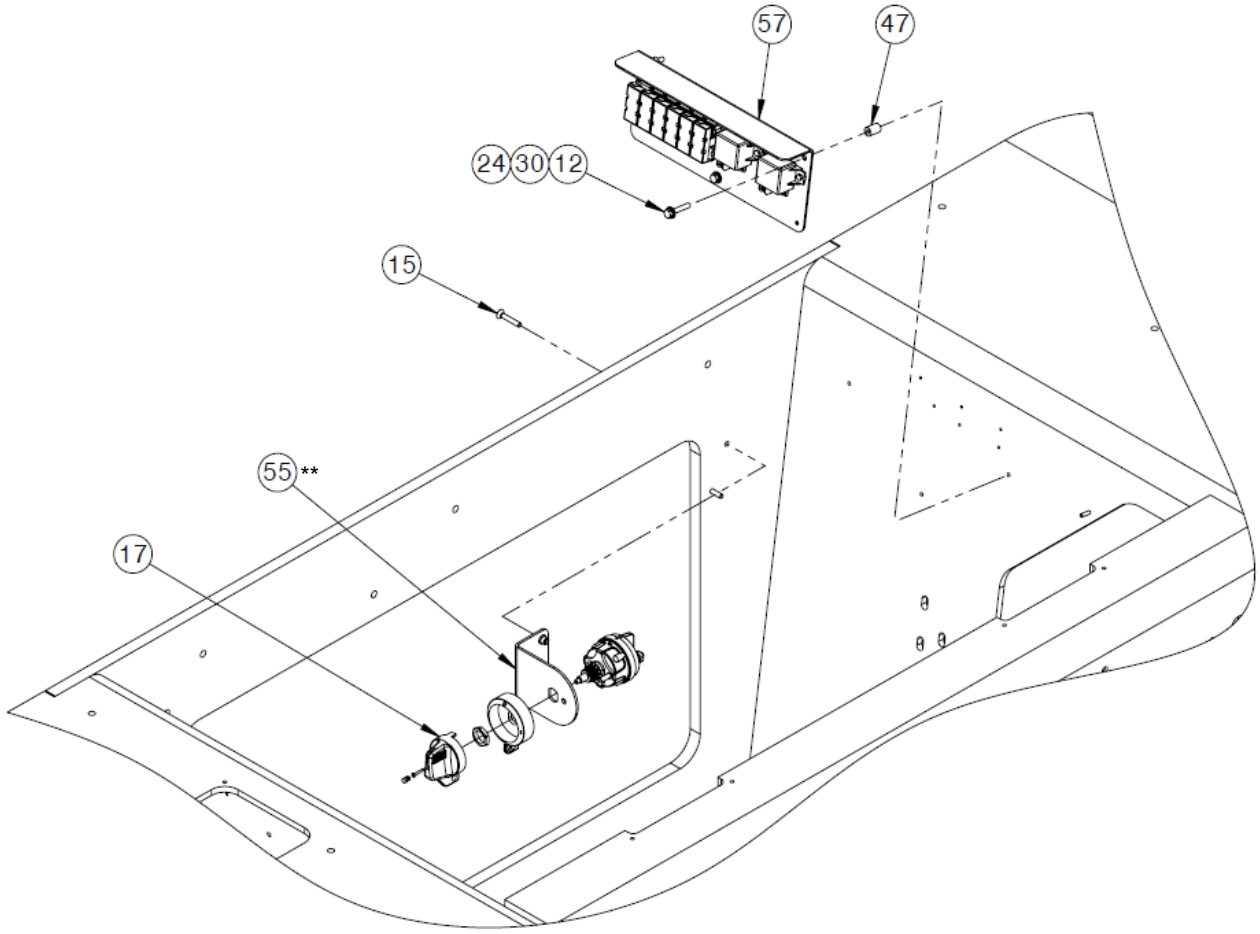
12.4 ELECTRICAL SYSTEM *(continued)*

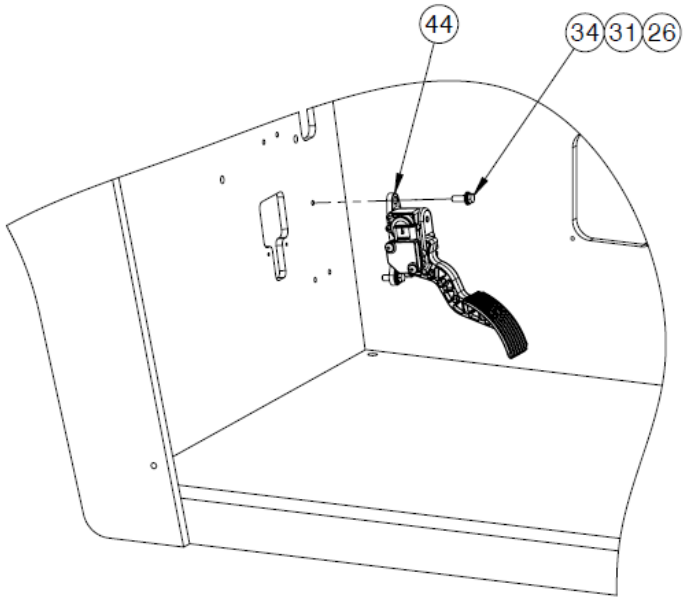


12.4 ELECTRICAL SYSTEM *(continued)*



12.4 ELECTRICAL SYSTEM *(continued)*

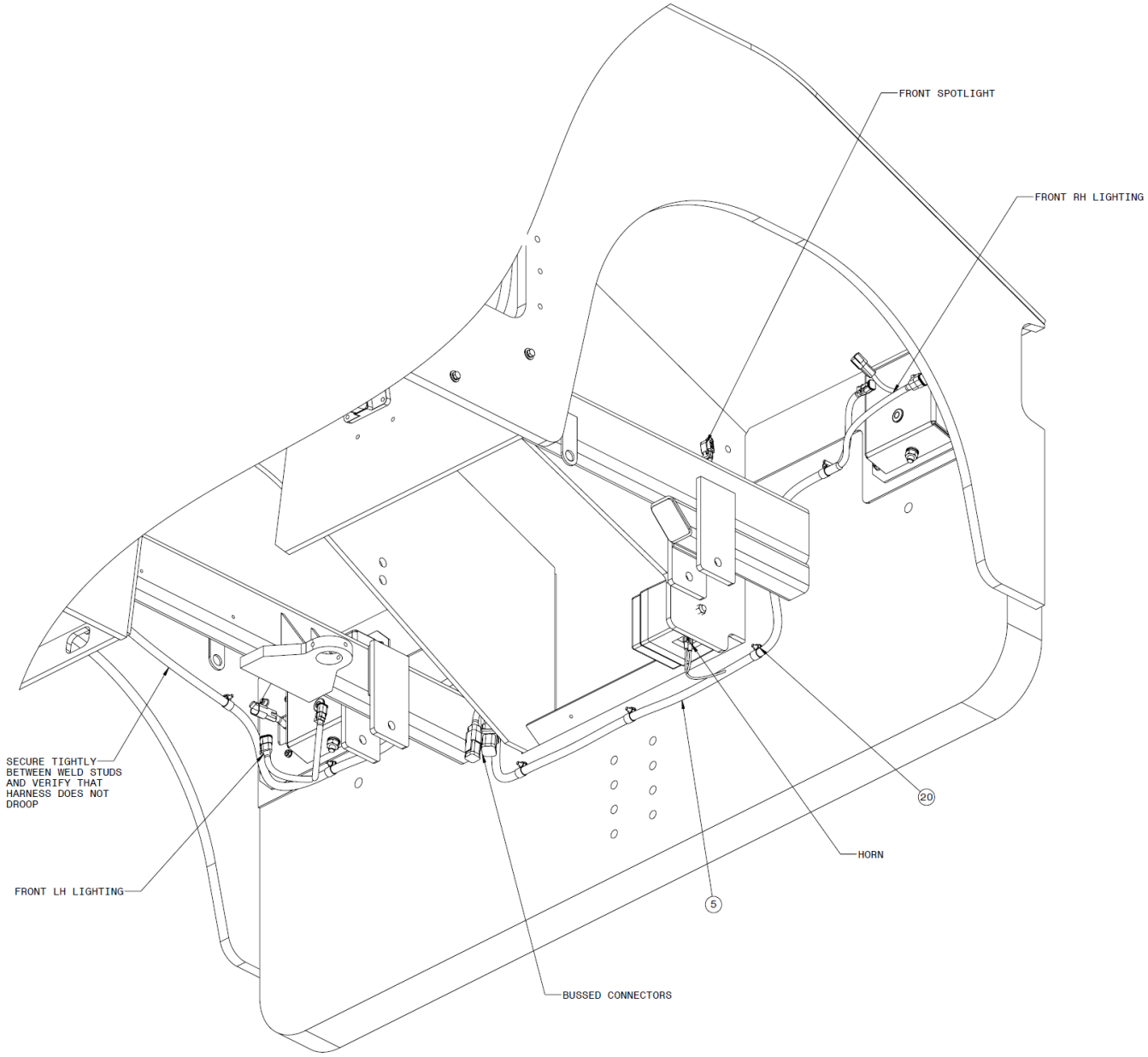




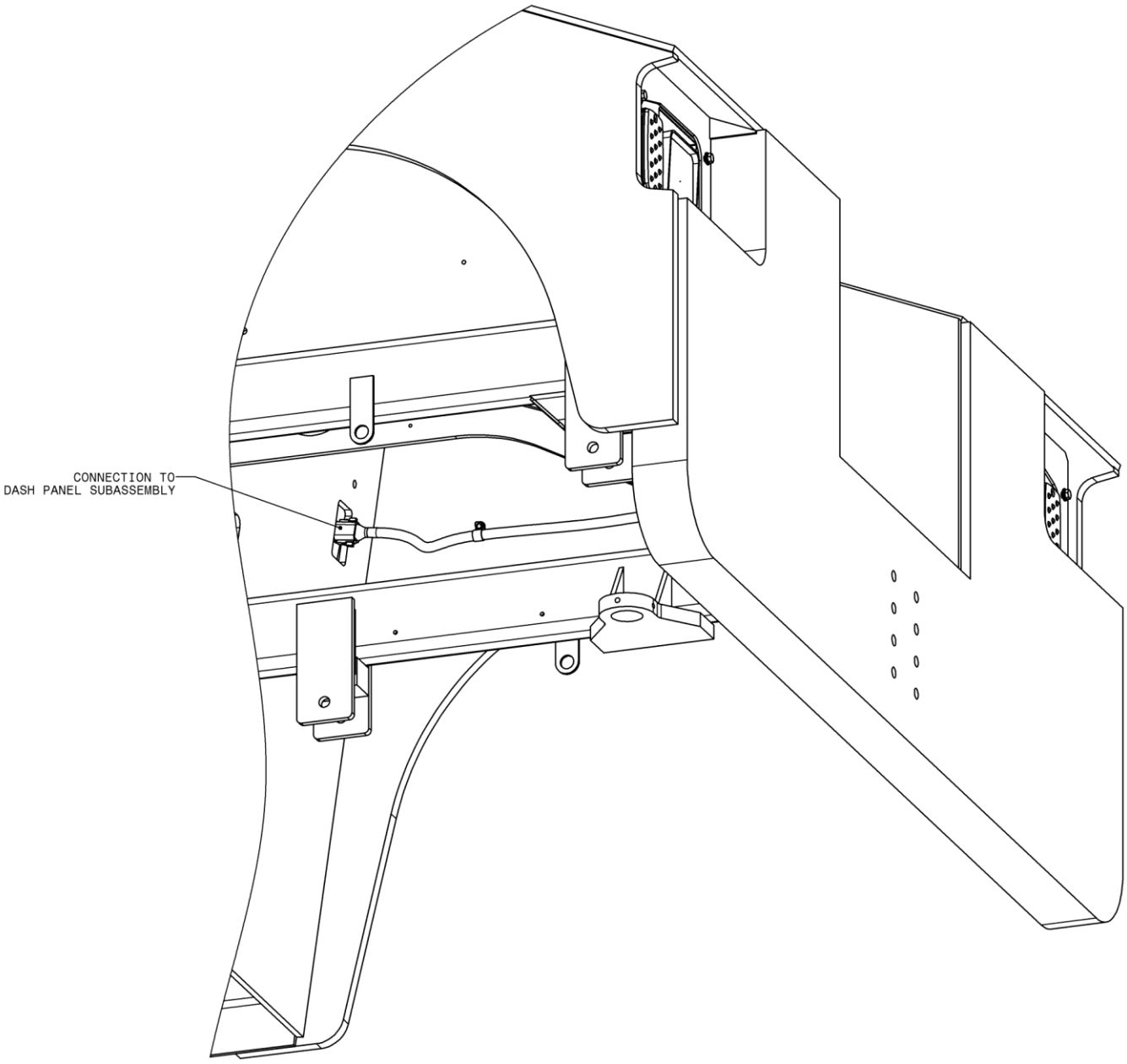
****WARNING!**

The key switch should be turned off for 30 full seconds before turning the battery disconnect switch off. Using the battery switch to turn the truck off interrupts the engine shutdown process and can cause engine errors.

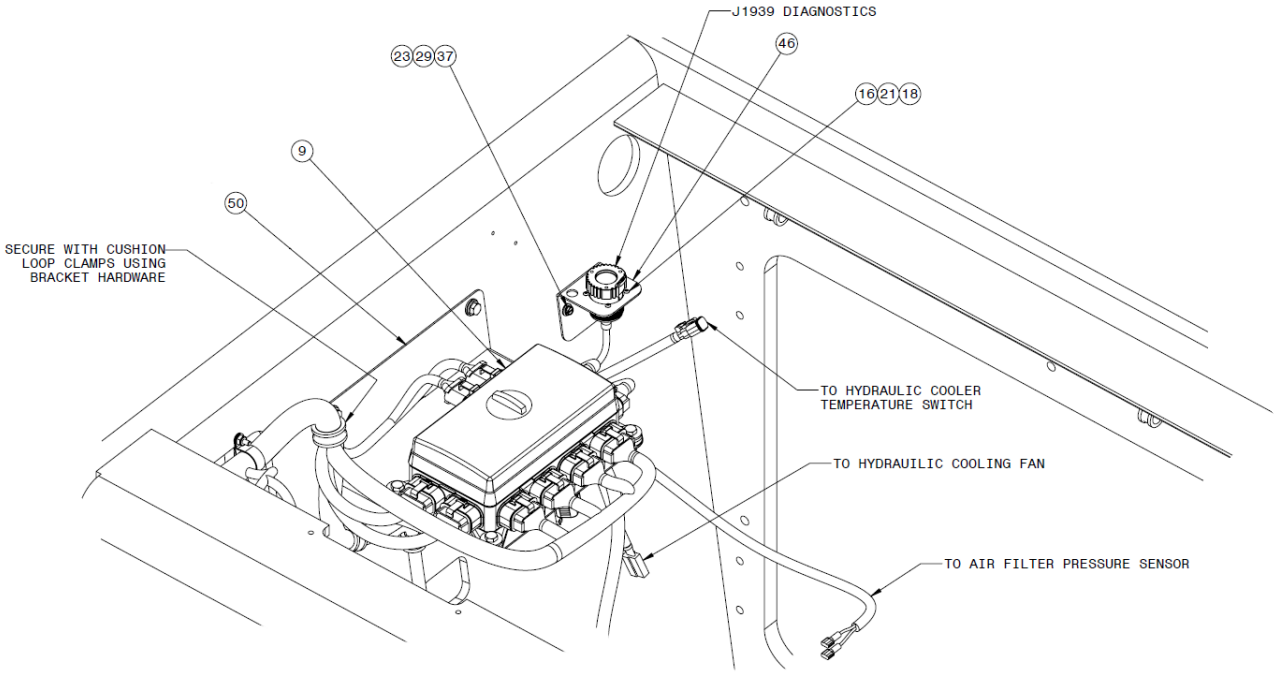
12.4 ELECTRICAL SYSTEM *(continued)*

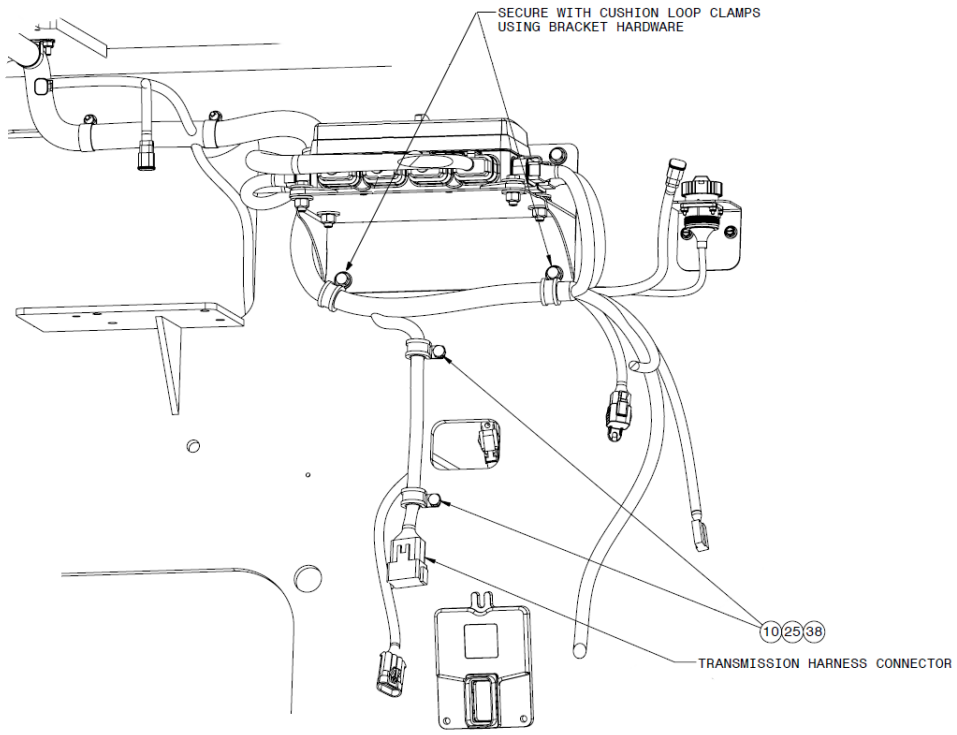


12.4 ELECTRICAL SYSTEM *(continued)*

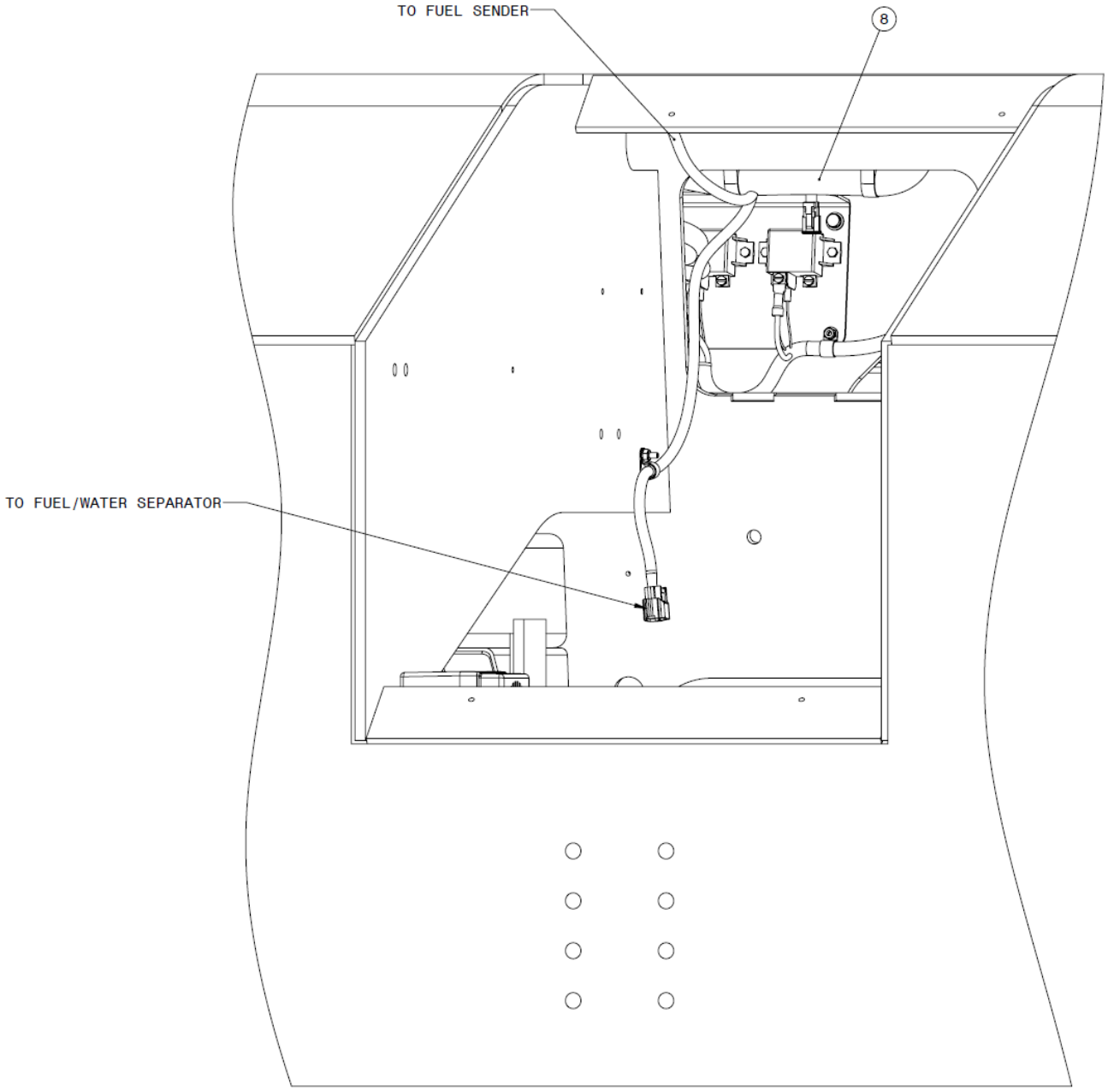


12.4 ELECTRICAL SYSTEM *(continued)*

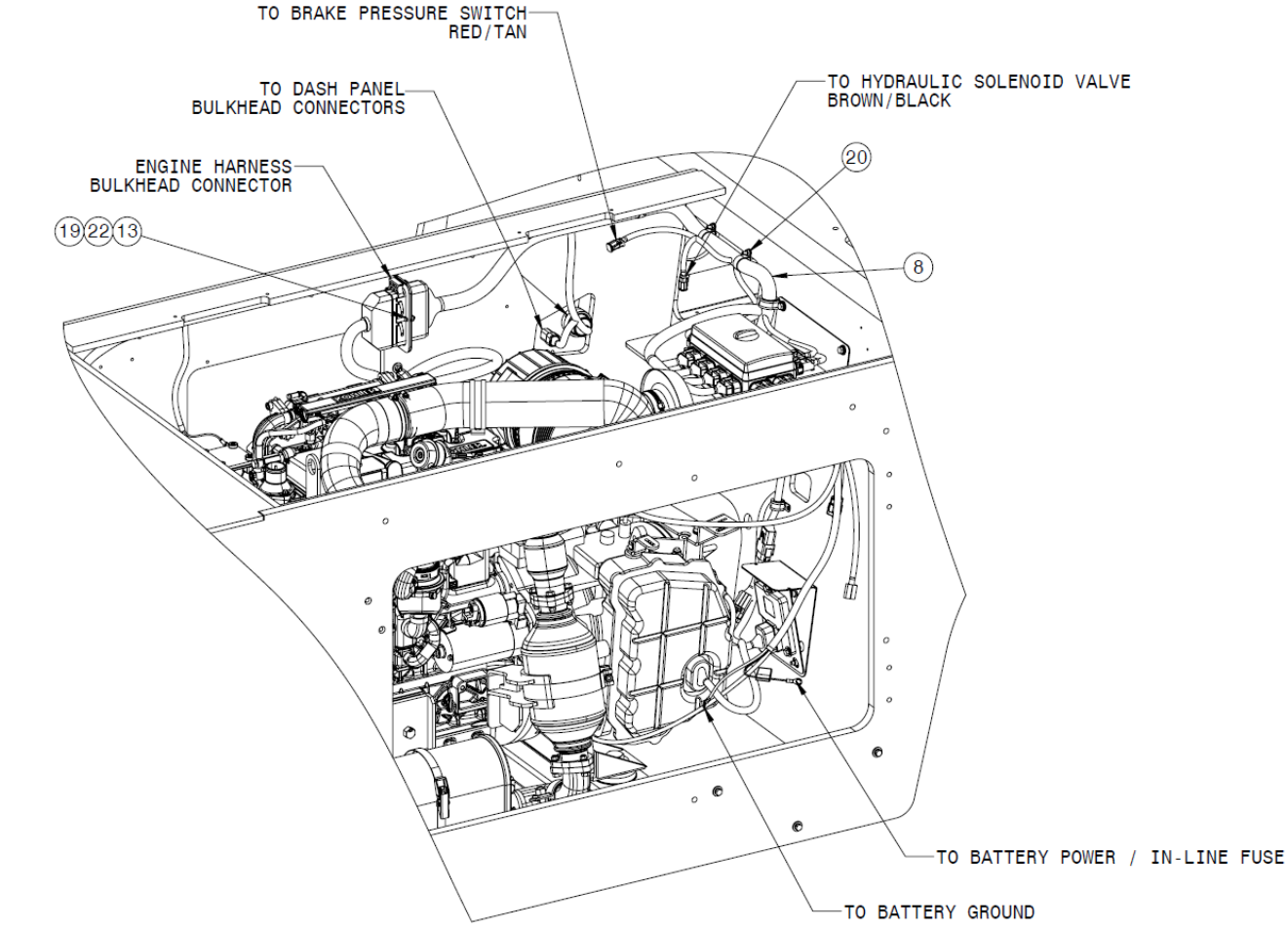


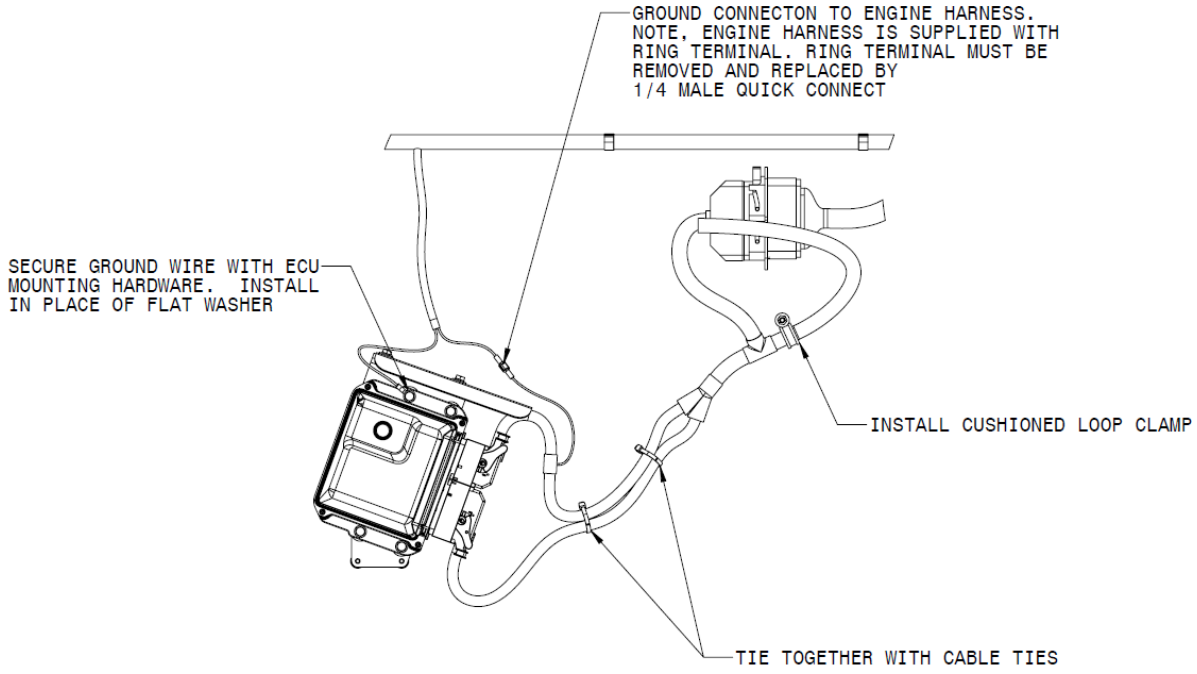


12.4 ELECTRICAL SYSTEM *(continued)*

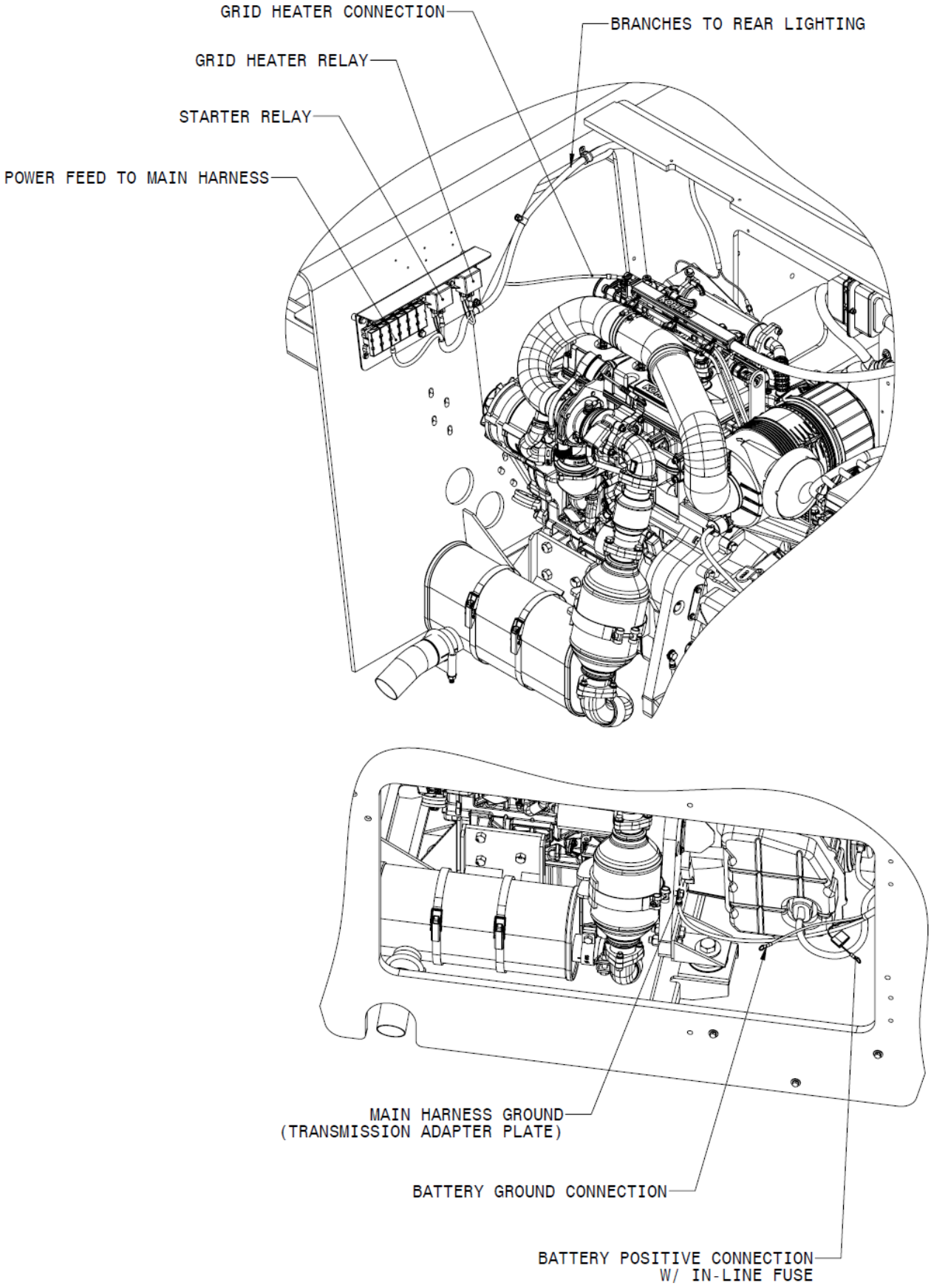


12.4 ELECTRICAL SYSTEM *(continued)*

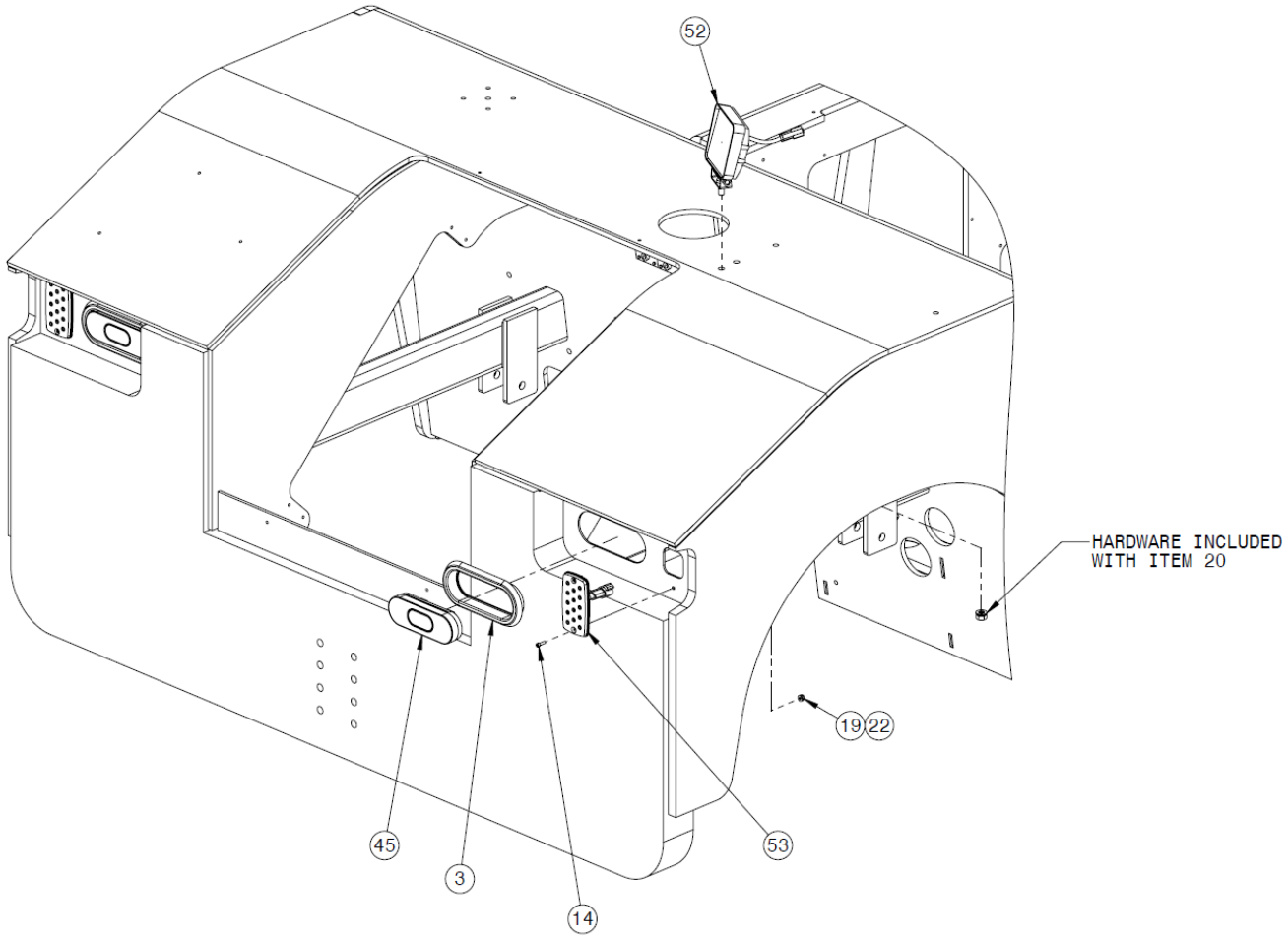




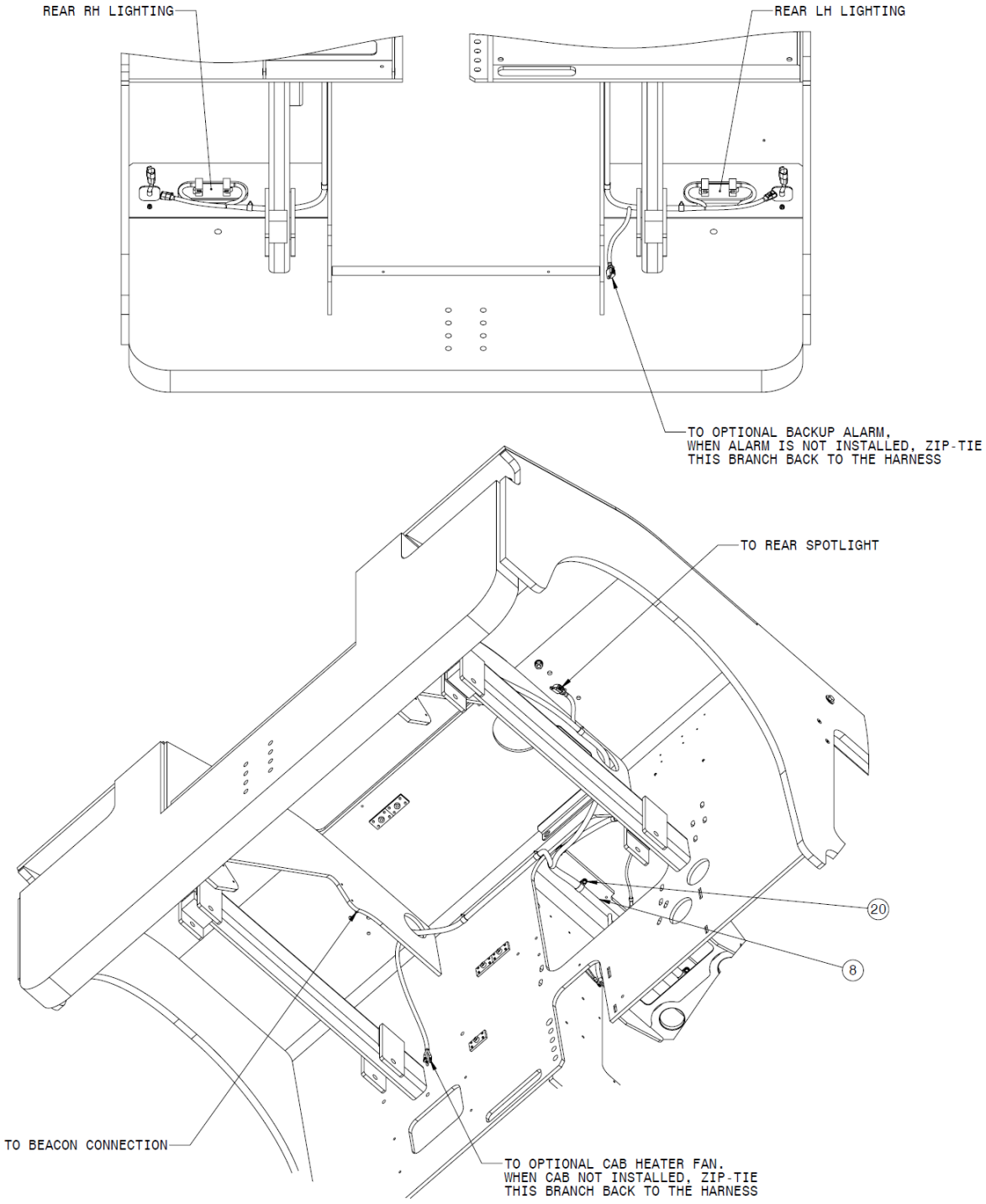
12.4 ELECTRICAL SYSTEM *(continued)*



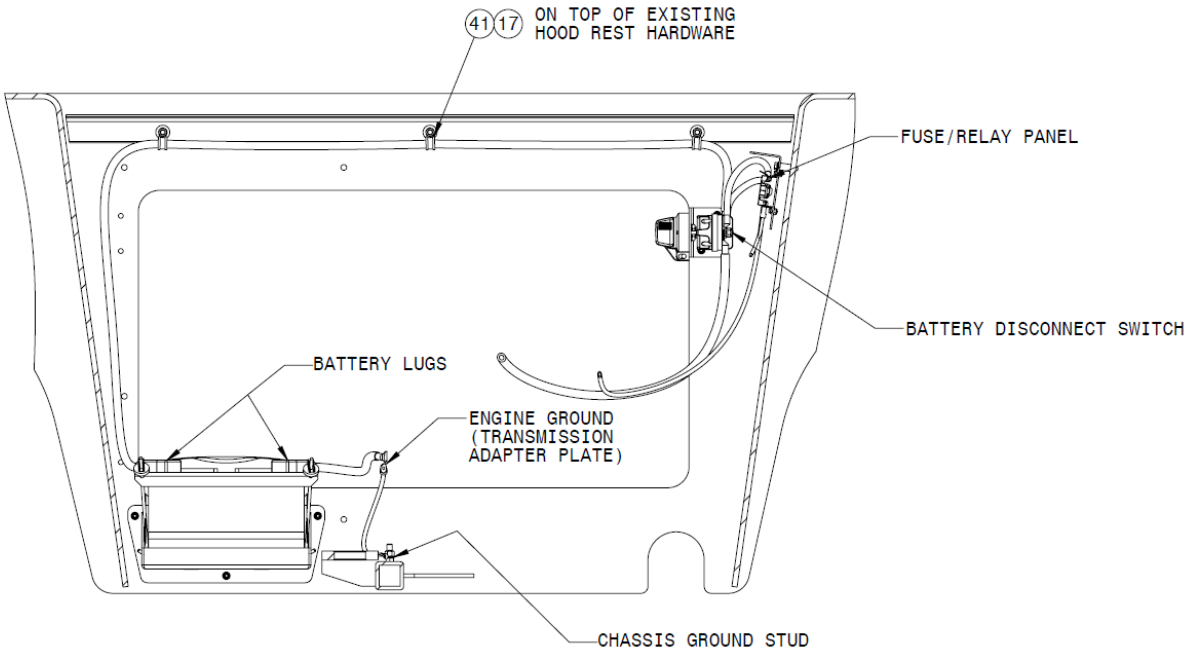
12.4 ELECTRICAL SYSTEM *(continued)*

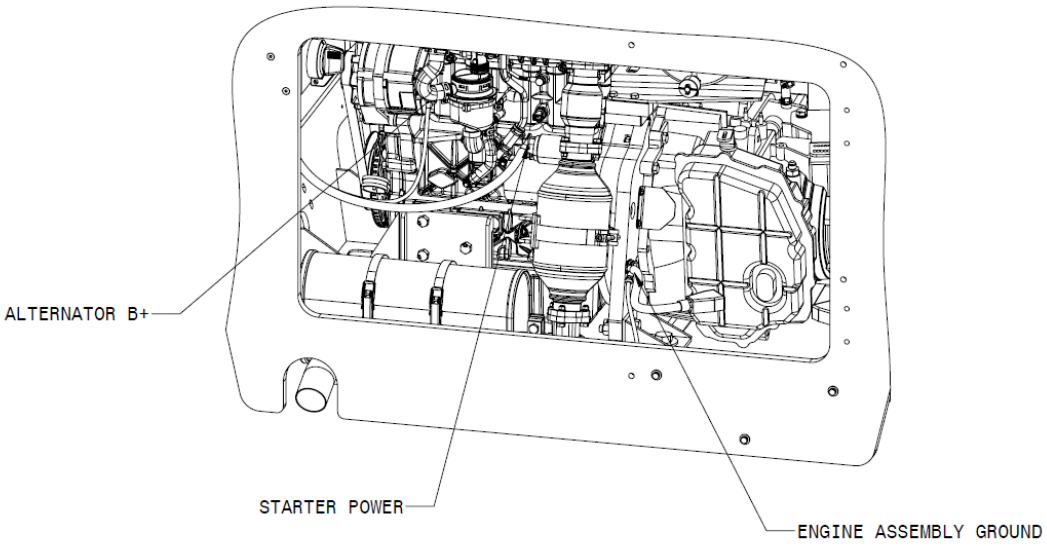


12.4 ELECTRICAL SYSTEM *(continued)*

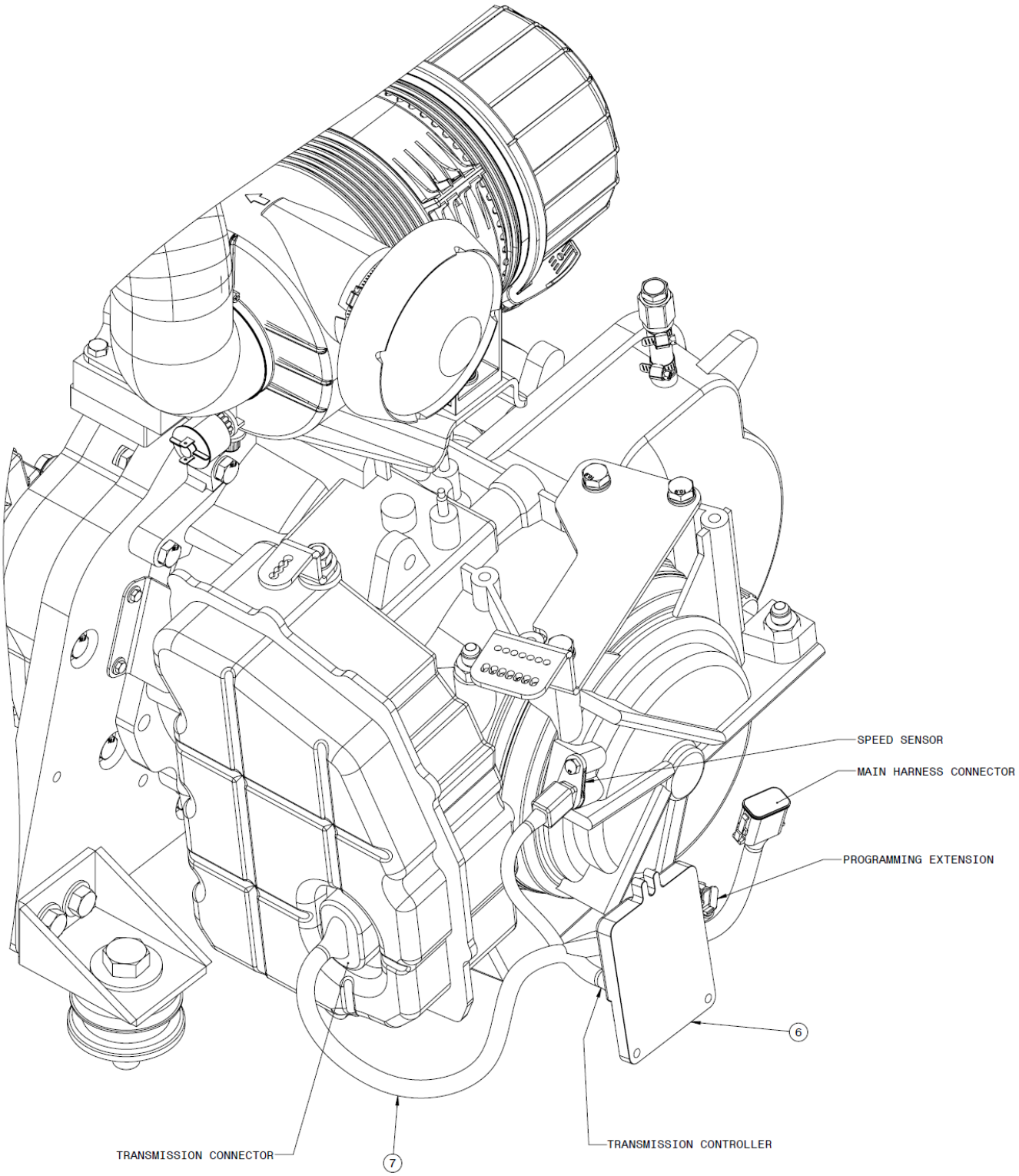


12.4 ELECTRICAL SYSTEM *(continued)*





12.4 ELECTRICAL SYSTEM *(continued)*



12.4 ELECTRICAL SYSTEM *(continued)*

Parts List – Electrical System

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	65-72	BATTERY GRP. 65 850 CCA	1
2	A-RTT12-00052	ELECTRONIC HORN	1
3	A-RTT12E-00287	TAIL LIGHT GROMMET	2
4	A-TT3-0002	BATTERY HOLD DOWN BOLTS	1
5	EC-3116	FRONT LIGHTING HARNESS	1
6	EC-3117	TRANSMISSION CONTROLLER	1
7	EC-3147	TRANSMISSION WIRE HARNESS	1
8*	EC-3336	HARNESS, MAIN VEHICLE TTR-6/8	1
8*	EC-3142	HARNESS, MAIN VEHICLE	1
9*	EC-3338	POWER DISTRIBUTION BOX	1
9*	EC-3151	POWER DISTRIBUTION BOX	1
10	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	13
11	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	3
12	G-1100-105014	BOLT, 1/4-20 X 1-1/2" LG HEX HD GR 5	6
13	G-1150-102005	SCREW, #8-32 X 5/8" LG HEX HD MACHINE	4
14	G-1151-102205	SCREW, #8-32 X 5/8" SOCKET HD CAP	4
15	G-1152-105214	SCREW, 1/4-20 X 1-1/2" LG SOCKET FLAT HD CAP	2
16	G-1154-100004	SCREW, #4-40 X 1/2" LG. SOC BUTT. HD CAP	4
17	G-1200-1070	NUT, 3/8-16 HEX	3
18	G-1202-1000	STOPNUT, #4-40 ELASTIC	4
19	G-1202-1020	STOPNUT, #8-32 ELASTIC	8
20	G-1202-1035	STOPNUT, #10-32 ELASTIC	29
21	G-1250-1000N	FLATWASHER, #4 NARROW	4
22	G-1250-1020N	FLATWASHER, #8 NARROW	8
23	G-1250-1030N	FLATWASHER, #10 NARROW	2
24	G-1250-1050N	FLATWASHER, 1/4 NARROW	11
25	G-1250-1050W	FLATWASHER, 1/4 WIDE	11
26	G-1250-1060N	FLATWASHER, 5/16 NARROW	7
27	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
28	G-1250-1070N	FLATWASHER, 3/8 NARROW	2
29	G-1251-1030R	LOCKWASHER, #10 REGULAR	2
30	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	20
31	G-1251-1060R	LOCKWASHER, 5/16 REGULAR	7
32	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	1
33	G-1420-106006	BOLT, 5/16-18 X 3/4" LG. HEX HD GR 8	4
34	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	7
35	G-1420-107012	BOLT, 3/8-16 X 1.25" HEX HD GR 8	1
36	G-1720-103504	SCR,#10-32X0.5 MACH HEX WSH HD	1
37	G-1720-103506	SCR,#10-32X.75 MACH HEX WSH HD	2

* For reorder of items 8 and 9, please provide vendor part number of fuse box, which is marked in the lower left corner of the fuse box cover.

12.4 ELECTRICAL SYSTEM *(continued)*

Parts List – Electrical System

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
38	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	2
39	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
40	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	1
41	G-1847-12	CUSHION LOOP CLAMP, 3/4, ∅ .406 MTG HOLE	3
42	J-6805-00	BATTERY HOLD DOWN BRKT (P)	1
43	NVSP-05-021-CA	BATTERY DISCONNECT SWITCH	1
44	NVSP-14-033-CA	THROTTLE PEDAL DUAL ANALOG	1
45	NVSP-34-010-CA	6 IN OVAL COMBINATION LIGHT	2
46	S-3440-00	BRKT, CAN DIAGNOSTICS (P)	1
47	TR-2553	SPACER, 1/4 X .75 LG	3
48	Z-10115	BATTERY CABLE KIT	1
49	Z-10945	ASY, TCU BRACKET	1
50	Z-11080-00	WLD, FUSE BOX BRACKET (P)	1
51	N/A	ASY, LH HEADLIGHT POCKET	1
52	Z-9825	ASY, HEADLIGHT W/CONNECTOR	-
53	Z-9826	ASY, TURN IND W/CONNECTOR	2
54	N/A	ASY, RH HEADLIGHT POCKET	1
55	Z-9905	ASY, BATTERY DISC BRKT	1
56	Z-9910	ASY, BATTERY BRACKET	1
57	N/A	ASY, FUSE AND RELAY PANEL	1

12.5 POWER DISTRIBUTION BOX SPARE PARTS

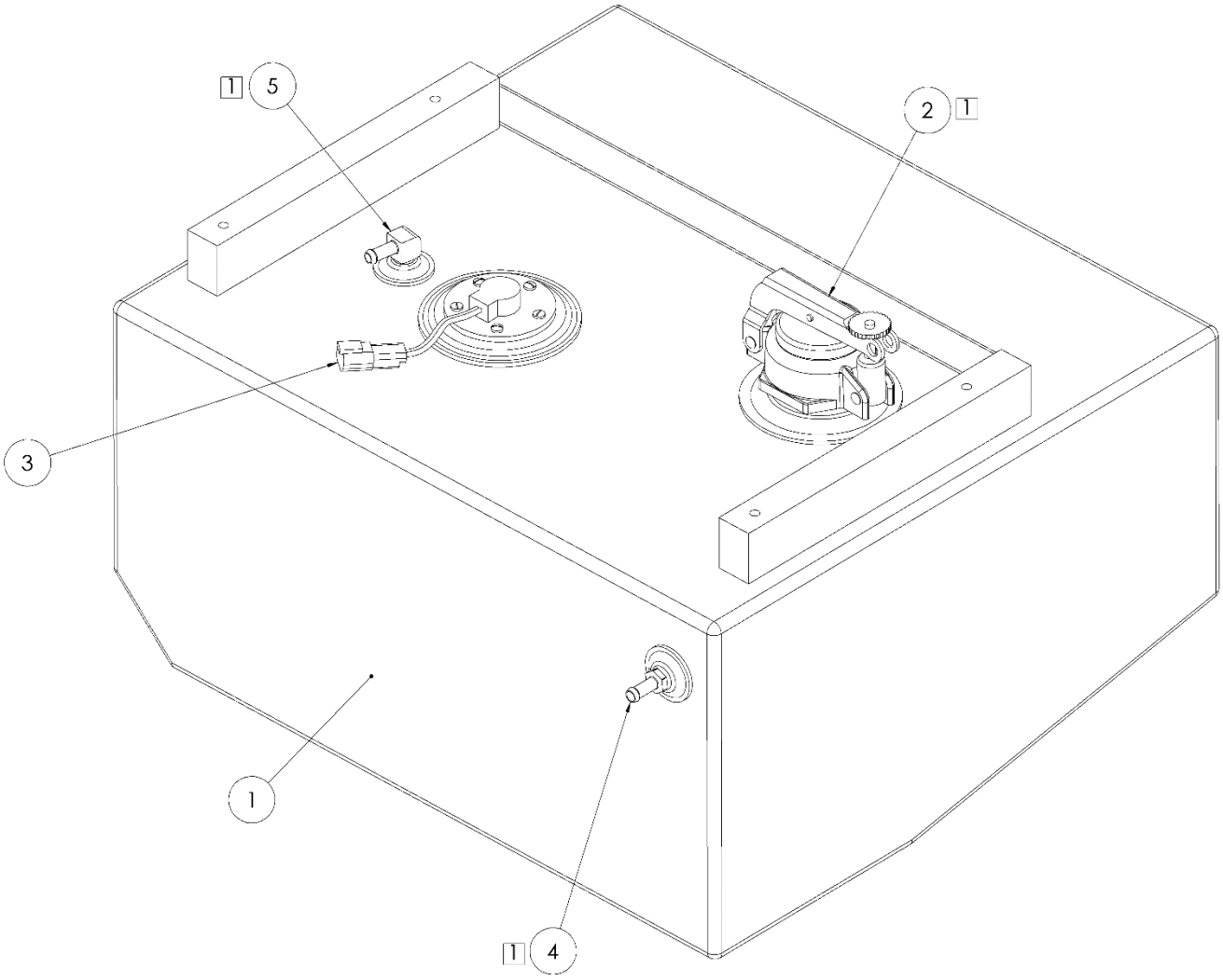
Parts List

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Part Number	Description	Qty
MIN-2	MINI FUSE, 2A (NOT SHOWN)	N/A
MIN-3	MINI FUSE, 3A (NOT SHOWN)	N/A
MIN-5	MINI FUSE, 5A (NOT SHOWN)	N/A
MIN-10	MINI FUSE, 10A (NOT SHOWN)	N/A
MIN-25	MINI FUSE, 25A (NOT SHOWN)	N/A
XL00-81-001-CA	12V 35A MICRO RELAY (NOT SHOWN)	N/A

13.0 FUEL

13.1 FUEL TANK SUB



NOTES:

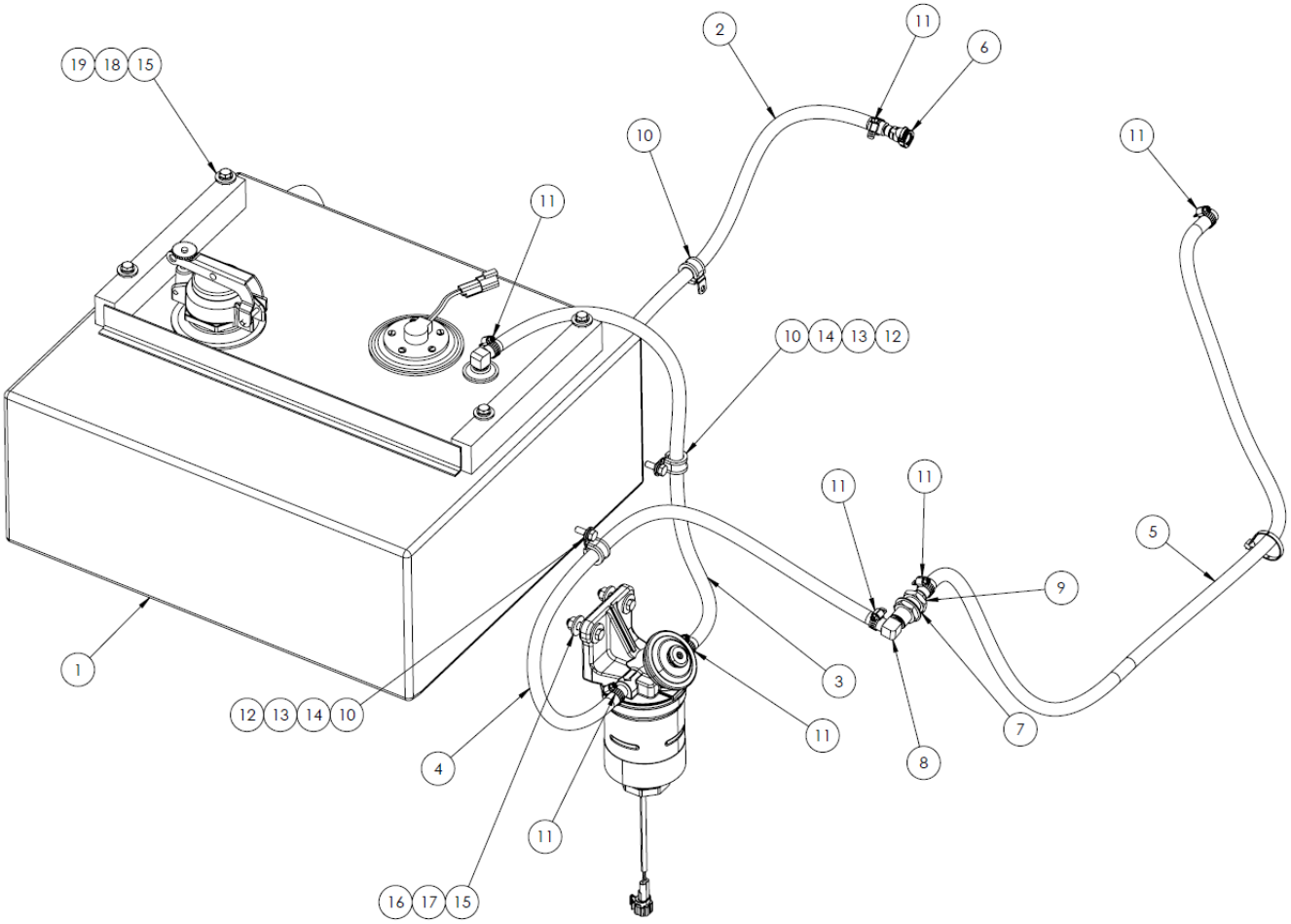
1 INSTALL WITH PIPE THREAD SEALANT: LOCTITE 565 OR EQUIVALENT

Parts List – Fuel Tank Sub

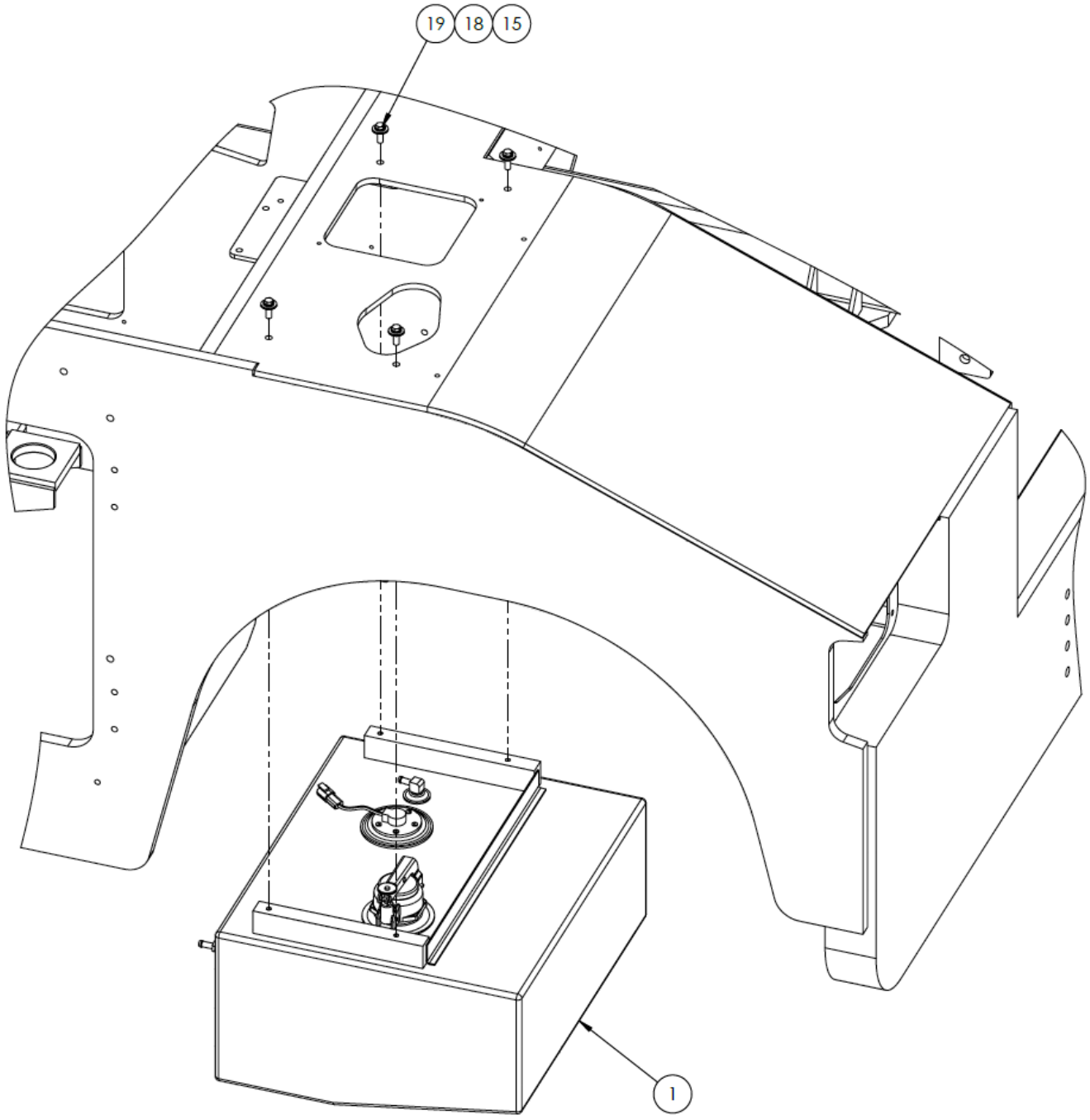
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	H-4268	FUEL TANK	1
2	A-TT4-00271-1	FUEL CAP GREEN DIESEL	1
3	Z-9923	FUEL SENDER WITH CONNECTOR	1
4	05705B-104	BRASS BARB 1/4 M NPT X 5/16 BARB	1
5	05705B-C04	ELBOW 90, 1/4 M NPT X 5/16 BARB	1

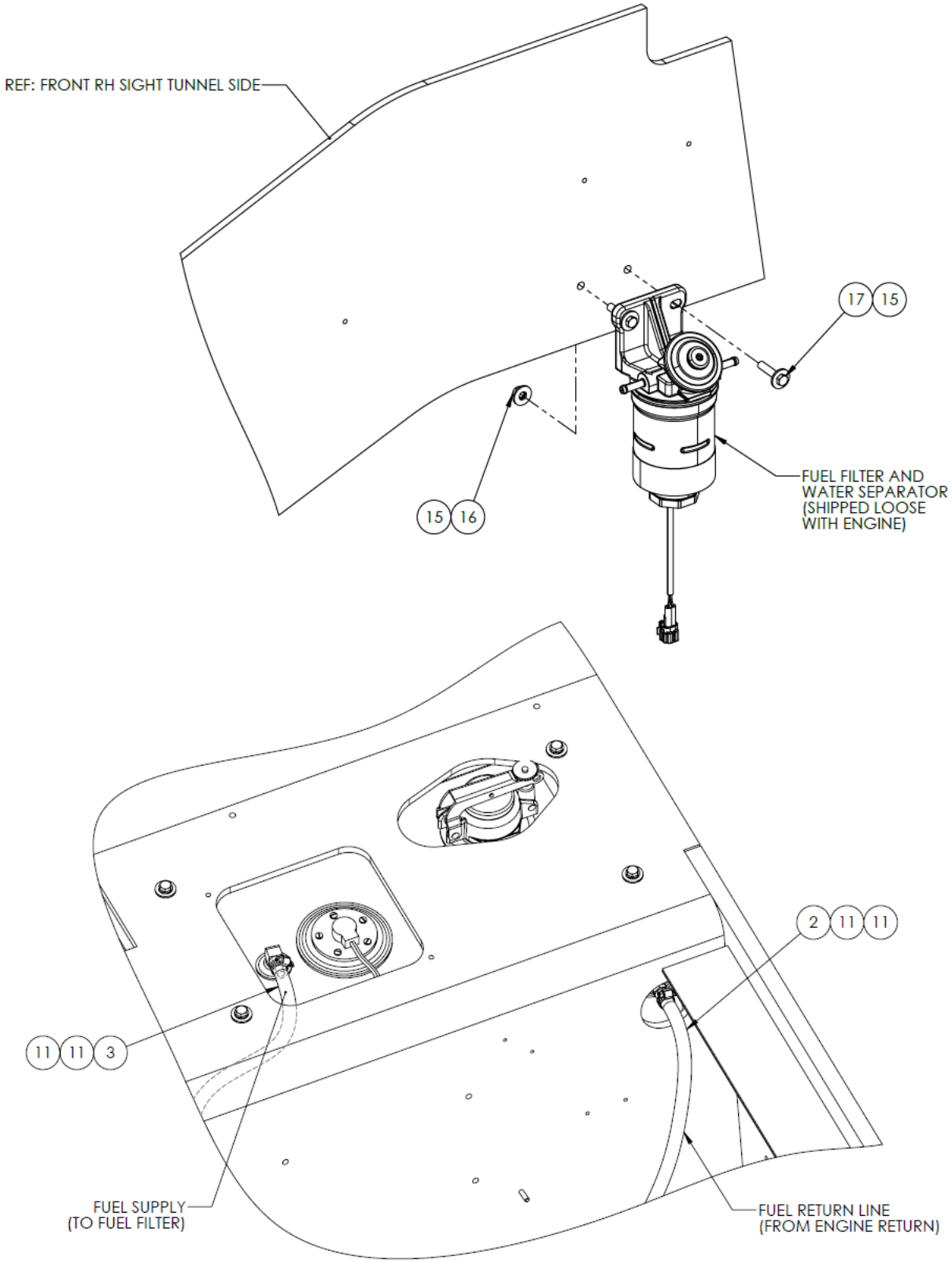
13.2 FUEL SYSTEM



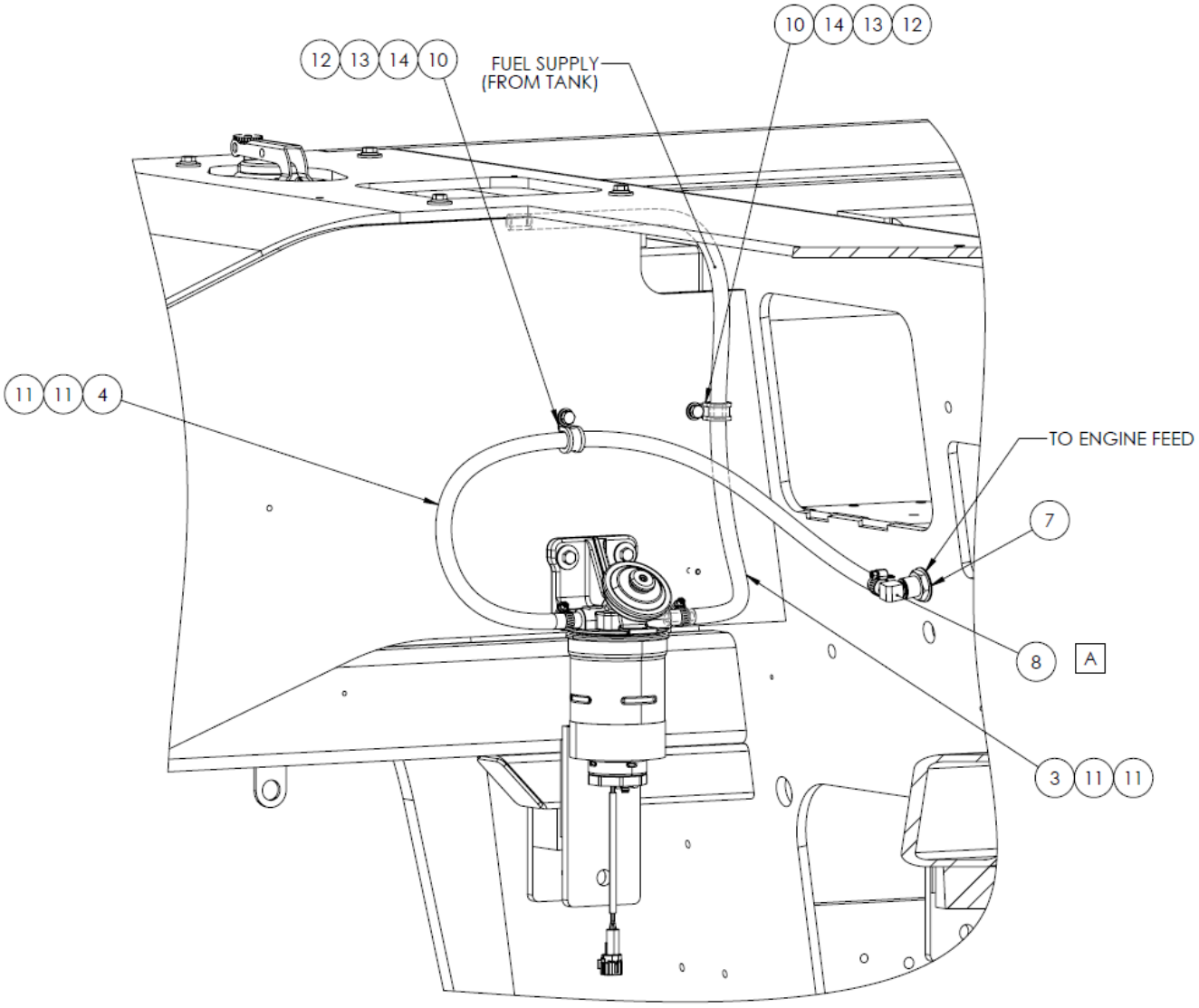
13.2 FUEL SYSTEM *(continued)*



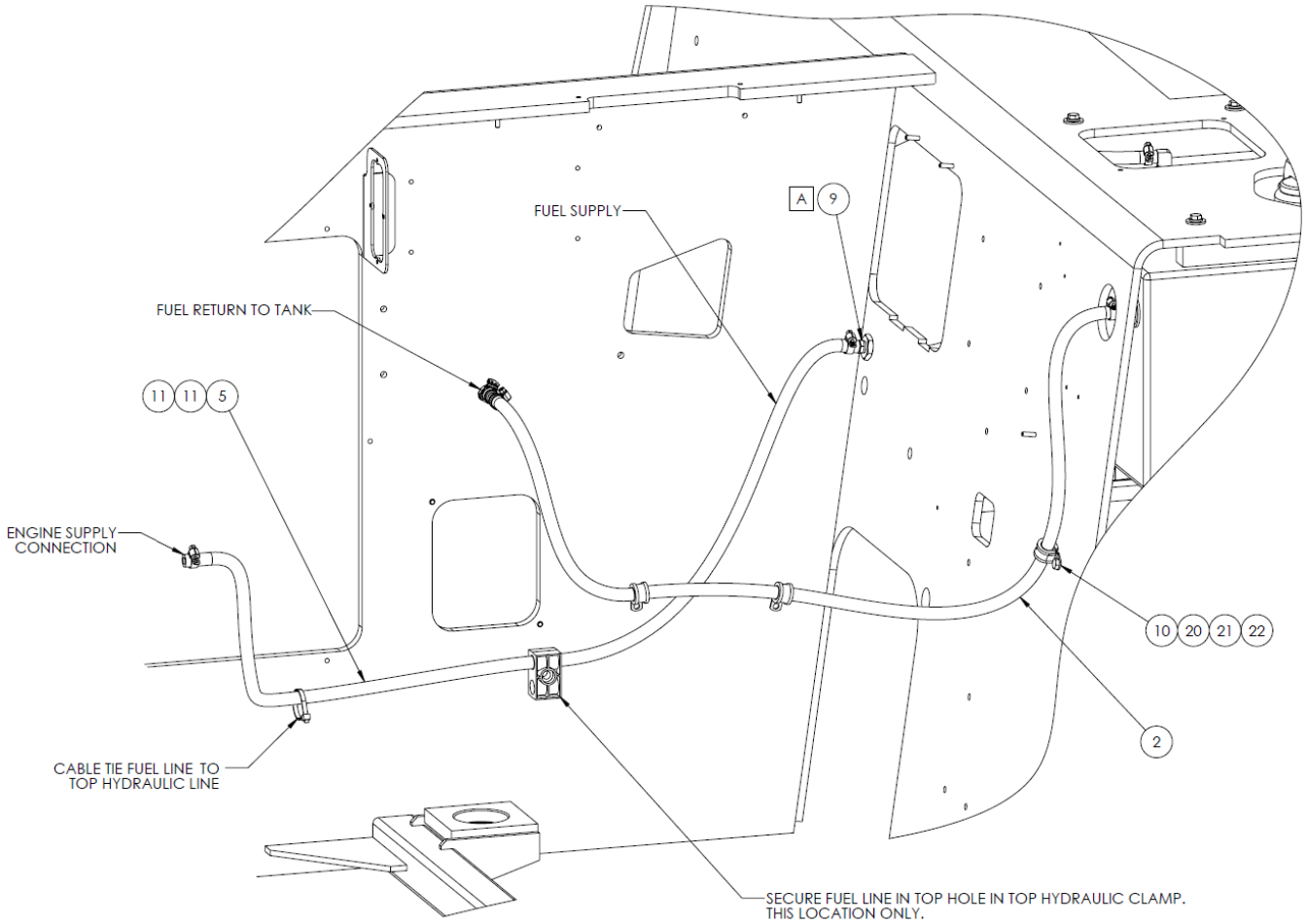
13.2 FUEL SYSTEM *(continued)*



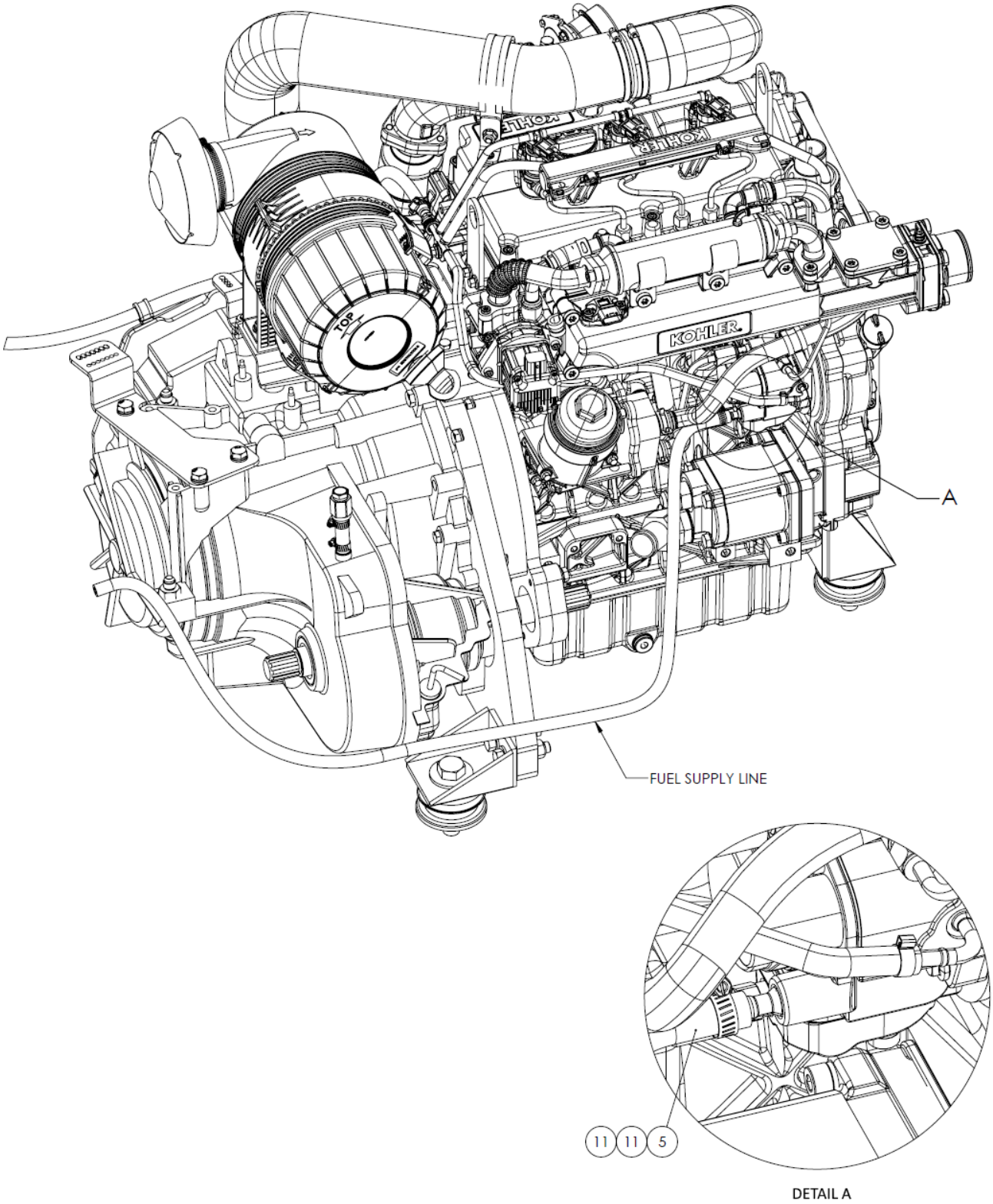
13.2 FUEL SYSTEM *(continued)*



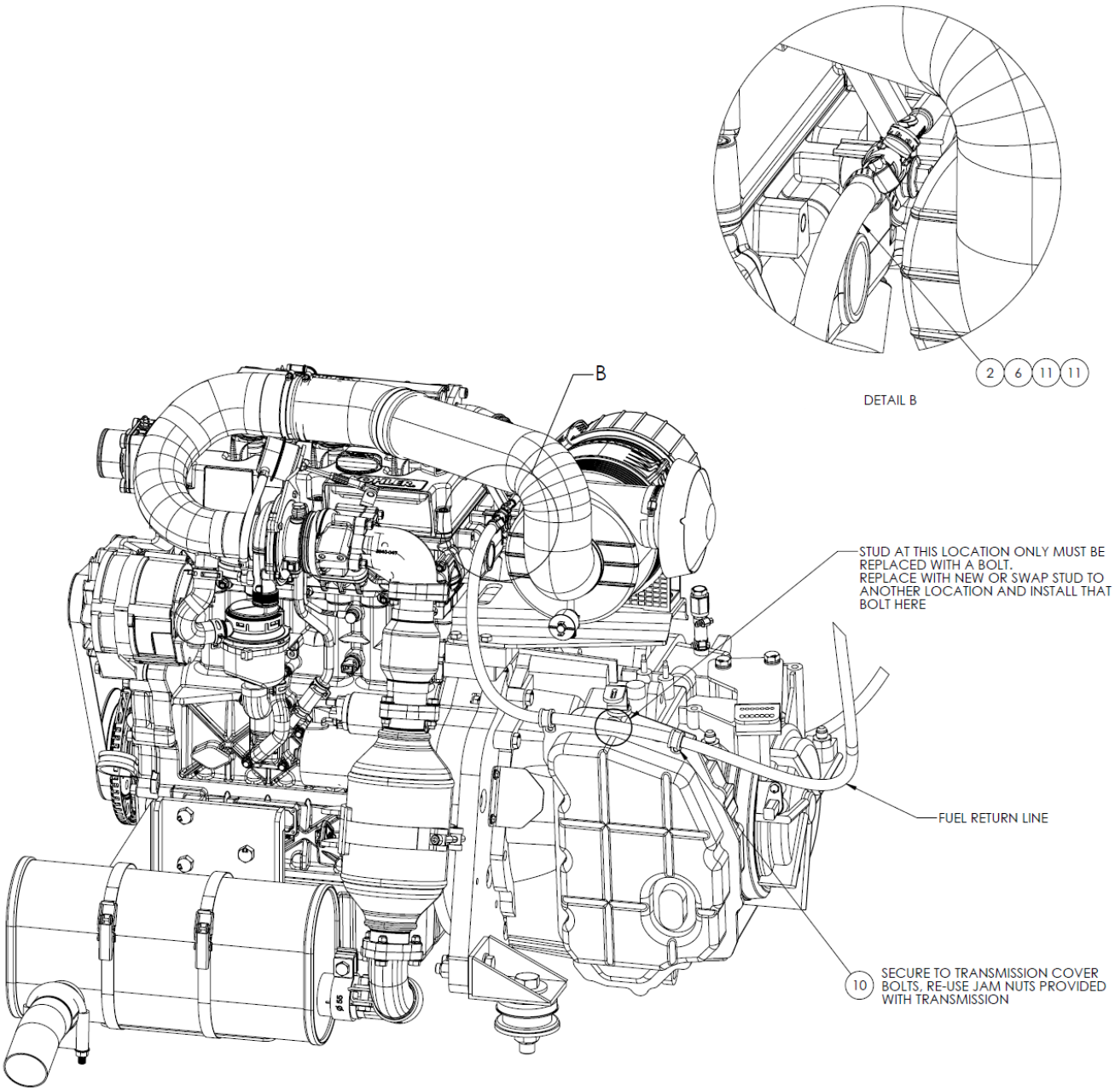
13.2 FUEL SYSTEM *(continued)*



13.2 FUEL SYSTEM *(continued)*



13.2 FUEL SYSTEM *(continued)*



13.2 FUEL SYSTEM *(continued)*

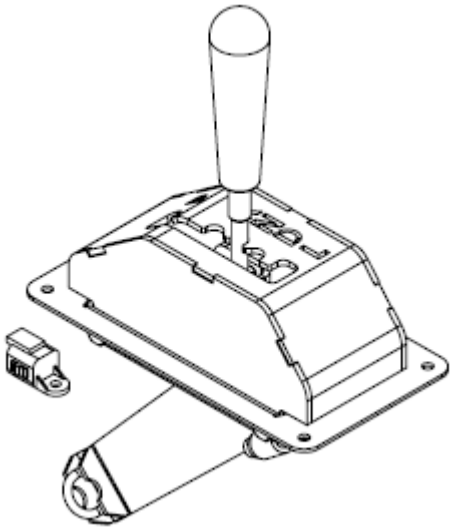
Parts List – Fuel System

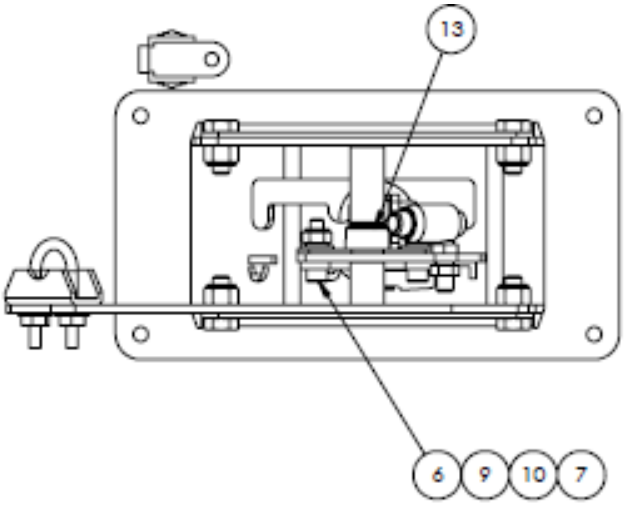
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

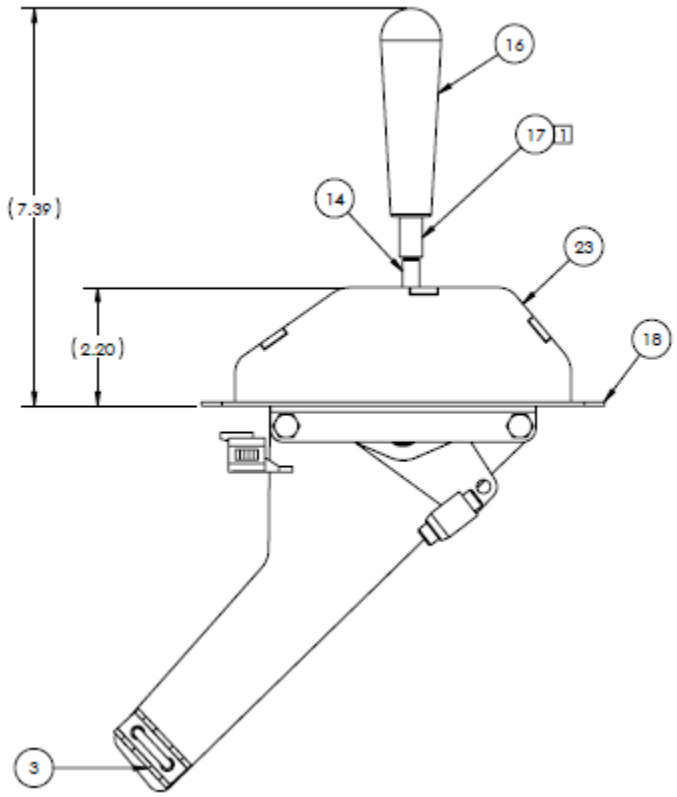
Item	Part Number	Description	Qty
1	N/A	ASY, FUEL TANK	1
2	TF-1152-02	5/16" XL FUEL LINE BY GATES	50
3	TF-1152-02	5/16" XL FUEL LINE BY GATES	26
4	TF-1152-02	5/16" XL FUEL LINE BY GATES	31
5	TF-1152-02	5/16" XL FUEL LINE BY GATES	50
6	H-4627	FUEL QUICK DISCONNECT	1
7	A-TT4-00280	BULKHEAD FITTING	1
8	05705B-C04	ELBOW 90, 1/4 M NPT X 5/16 BARB	1
9	05705B-104	BRASS BARB 1/4 M NPT X 5/16 BARB	1
10	H-3521-05	CLAMP, CUSHIONED LOOP 5/8"	5
11	H-1426-01	HOSE CLAMP - .38" - .87"	8
12	G-1250-1050N	FLATWASHER, 1/4 NARROW	2
13	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	2
14	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	2
15	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
16	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	2
17	G-1420-106014	BOLT, 5/16-18 HEX HD GR 8	2
18	G-1251-1060R	LOCKWASHER, 5/16 REGULAR	4
19	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	4
20	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	1
21	G-1250-1050W	FLATWASHER, 1/4 WIDE	1
22	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	1

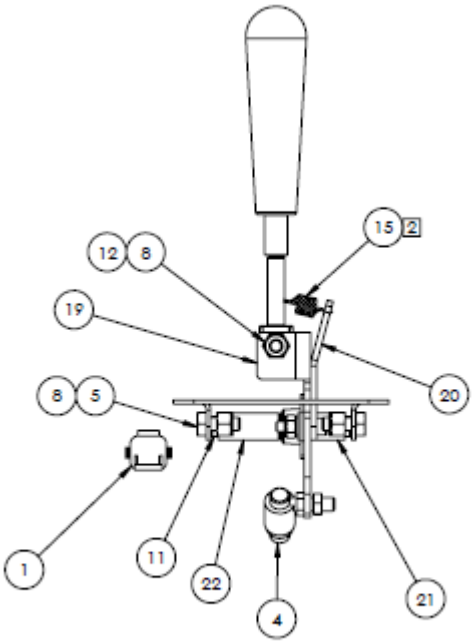
14.0 DASH PANEL

14.1 SHIFTER SUB

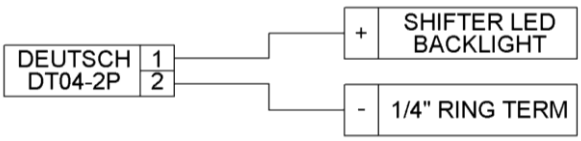








CASE REMOVED FOR CLARITY



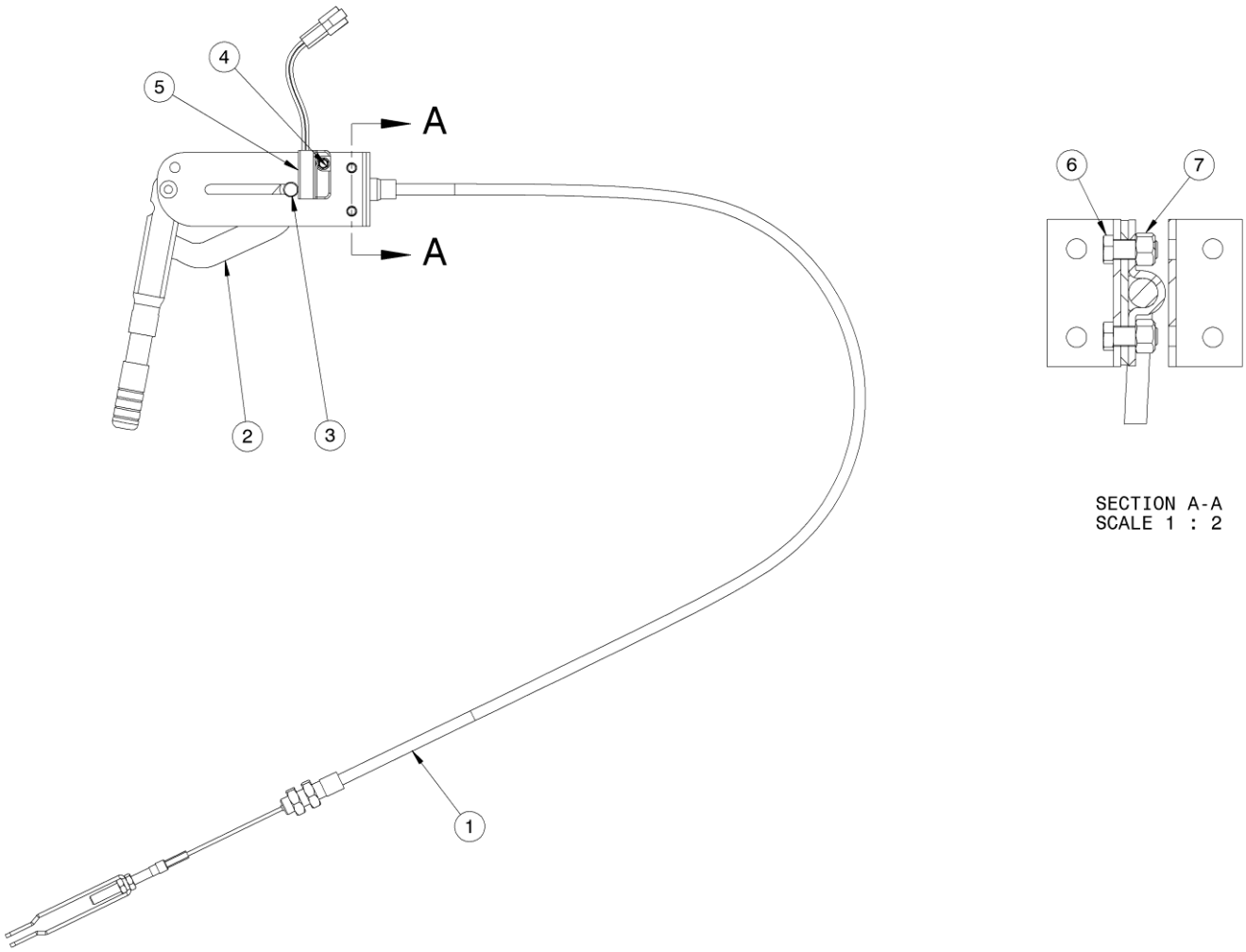
14.1 SHIFTER SUB *(continued)*

Parts List – Shifter Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	1011-344-0205	DUST CAP DT06-2S	1
2	A-TT4-00246	MORSE TRANSMISSION SHIFT CABLE	1
3	A-TT4-00247	TRANS CABLE U-BOLT	1
4	A-TT4-00249	MORSE TRANSMISSION BALL JOINT	1
5	G-1100-105005	BOLT, 1/4-20 X 5/8" LG. HEX HD GR 5	4
6	G-1151-103006	SCREW, #10-24 X 3/4" SOCKET HD CAP	2
7	G-1202-1035	STOPNUT, #10-32 ELASTIC	2
8	G-1202-1050	STOPNUT, 1/4-20 ELASTIC	5
9	G-1250-1030N	FLATWASHER, #10	2
10	G-1251-1030R	LOCKWASHER, #10 REGULAR	2
11	G-1315-07-2.63	PIN, STL DOWEL 3/8 X 1/2	1
12	G-1708-1050032	SCREW, HEX SOCKET HEAD SHOULDER (SST)	1
13	H-5116	BUSHING, .375 I.D.	1
14	H-5117	ROD END, S.S.	1
15	H-5118	SPRING 1"	1
16	H-5120	SHIFTER KNOB, BALL	1
17	H-5135	COUPLING NUT, ROUND	1
18	S-3442-00	BRKT, SHIFT LEVER (P)	1
19	S-4466-00	SHIFTER, MAIN PIVOT (P)	1
20	S-4467-00	SHIFTER, SPRING PLATE (P)	1
21	TR378-07-000.63	TBG, SST .625OD-.120W	1
22	TR378-07-001.12	TBG, SST .625OD-.120W	1
23	Z-12086	WELDMENT, SHIFTER CASE	1

14.2 PARKING BRAKE HANDLE SUB

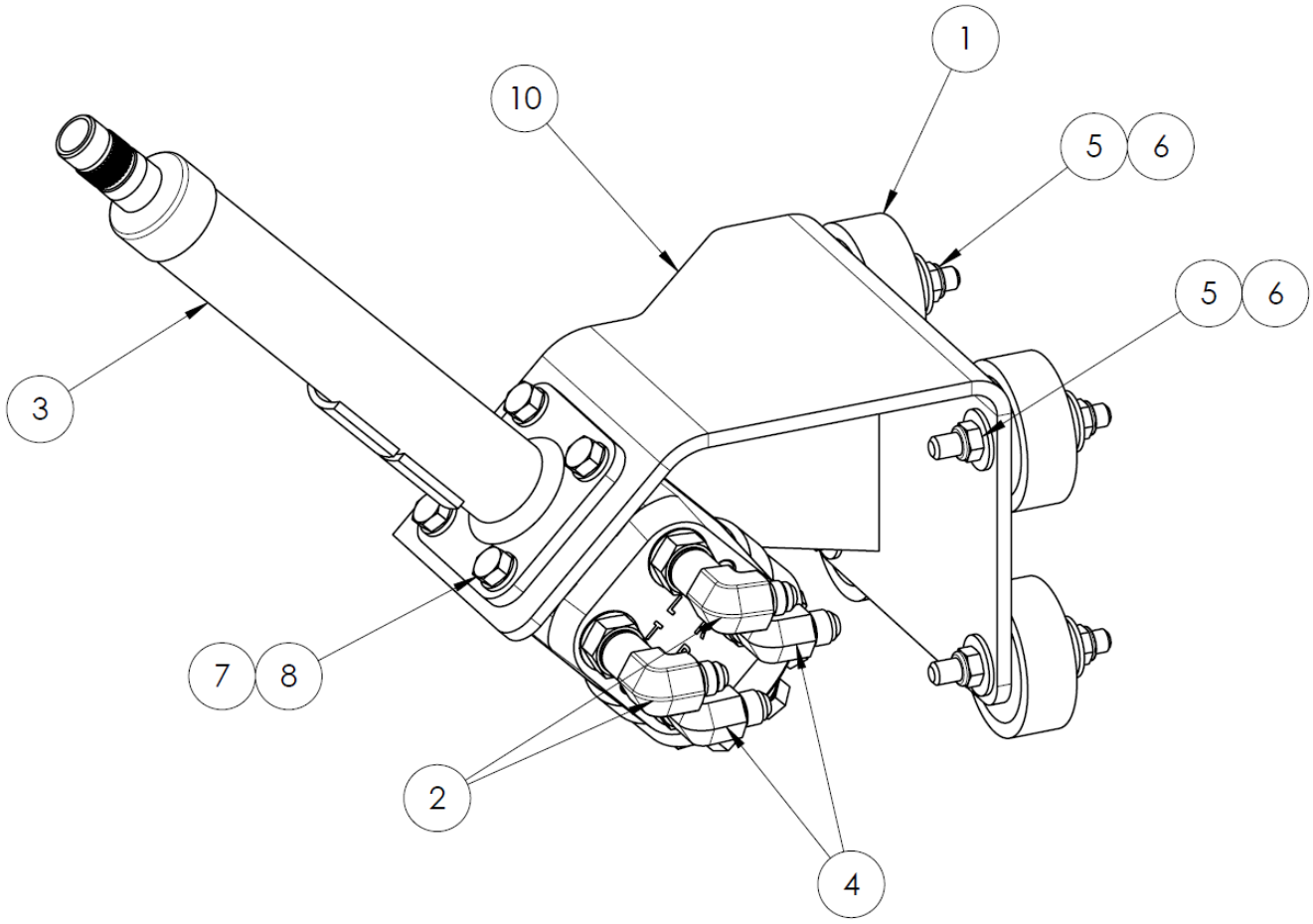


Parts List – Parking Brake Handle Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	B-TT4-00145	CABLE PRIMARY	1
2	A-TT4-00141	BRAKE LEVER-HAND	1
3	81008429	BUZZLITE PRK BRAKE CONTACT PIN	1
4	82066700	MOUNTING SCREW BUZZLITE	1
5	Z-9940	PRX SENSOR BUZZLITE W CONNECT	1
6	G-1420-106006	BOLT, 5/16-18 X 3/4" LG. HEX HD GR 8	2
7	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	2

14.3 STEERING COLUMN SUB

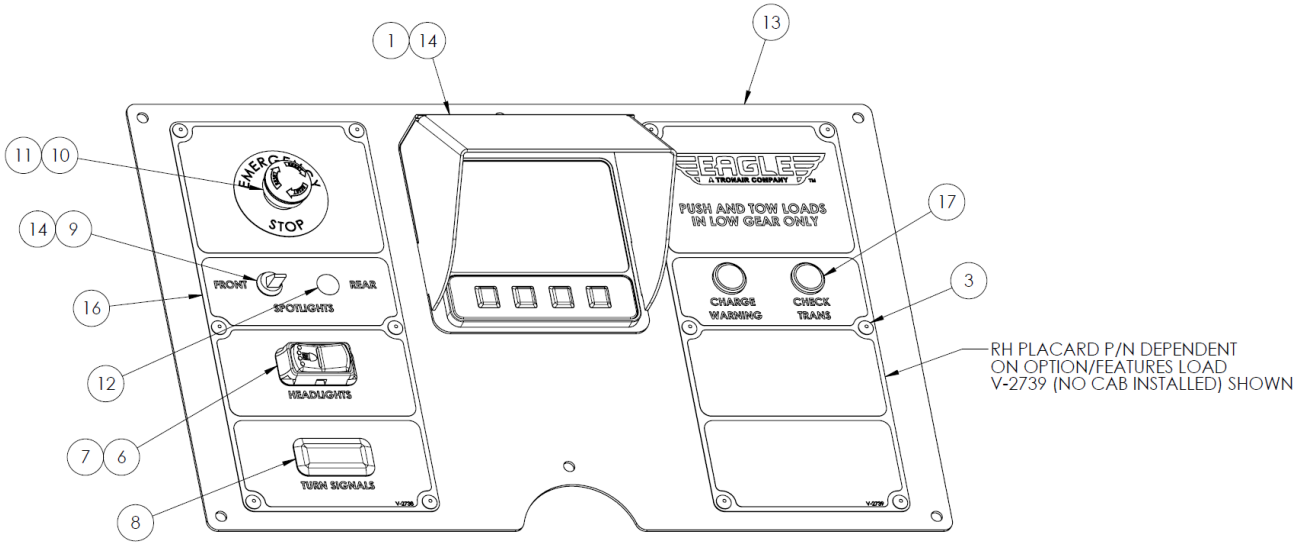


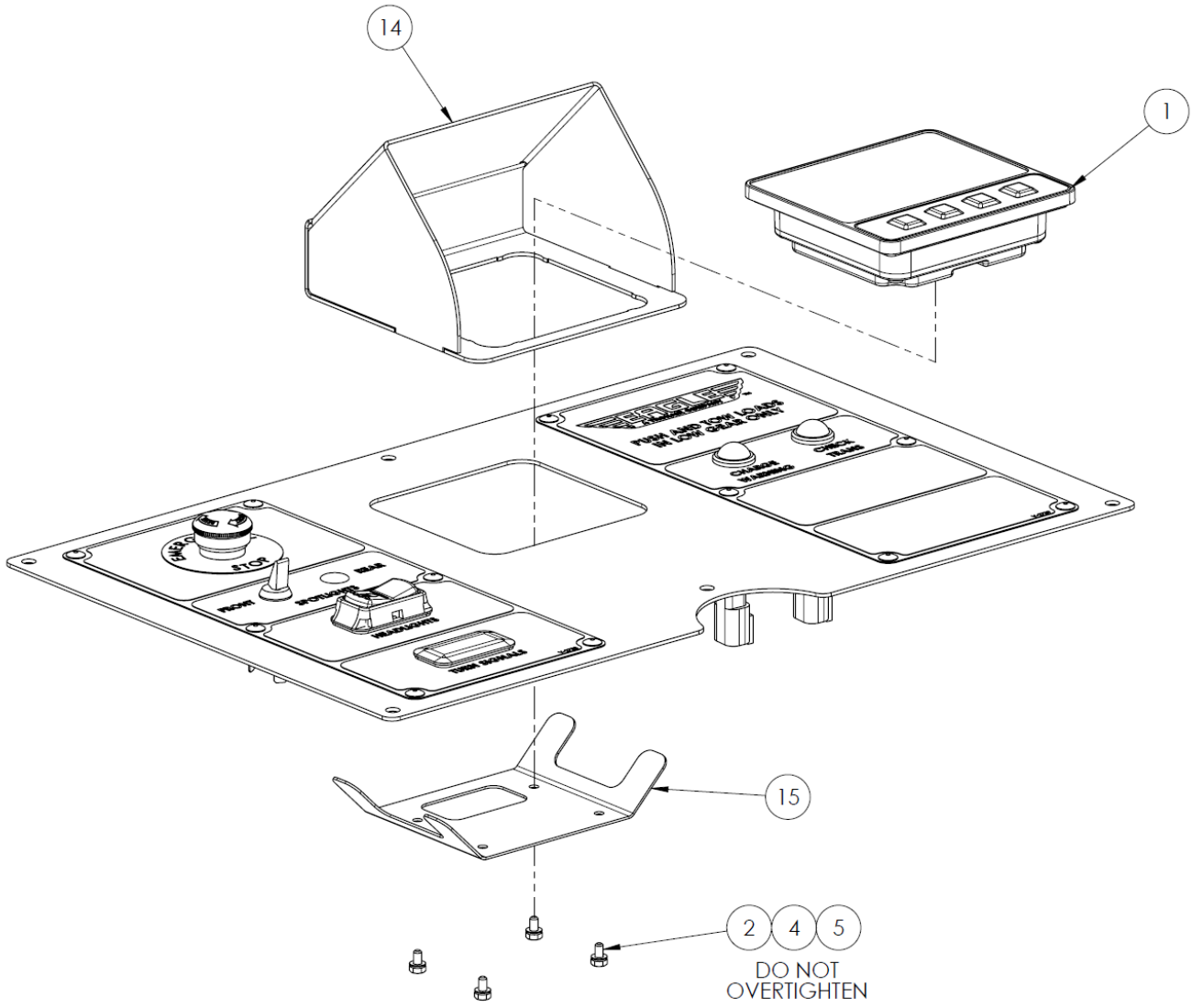
Parts List – Steering Column Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	450A9401	VIBRATION DAMPING MOUNT	4
2	6-8 CC5OX-S	ELBOW LONG, -06 M JIC X -08 M ORB	2
3	A-MTT5-0807	STEERING COLUMN	1
4	C5515X6X8	ELBOW, -06 M JIC X -08 M ORB	2
5	G-1202-1070	STOPNUT, 3/8-16 ELASTIC	8
6	G-1250-1070W	FLATWASHER, 3/8 WIDE	8
7	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	4
8	G-1420-107010	BOLT, 3/8-16 X 1.0" HEX HD GR 8	4
9	HC-2820	STEERING ORBITAL	1
10	Z-12375-00	WLD, STEERING (P)	1

14.4 INSTRUMENT PANEL SUB





14.4 INSTRUMENT PANEL SUB *(continued)*

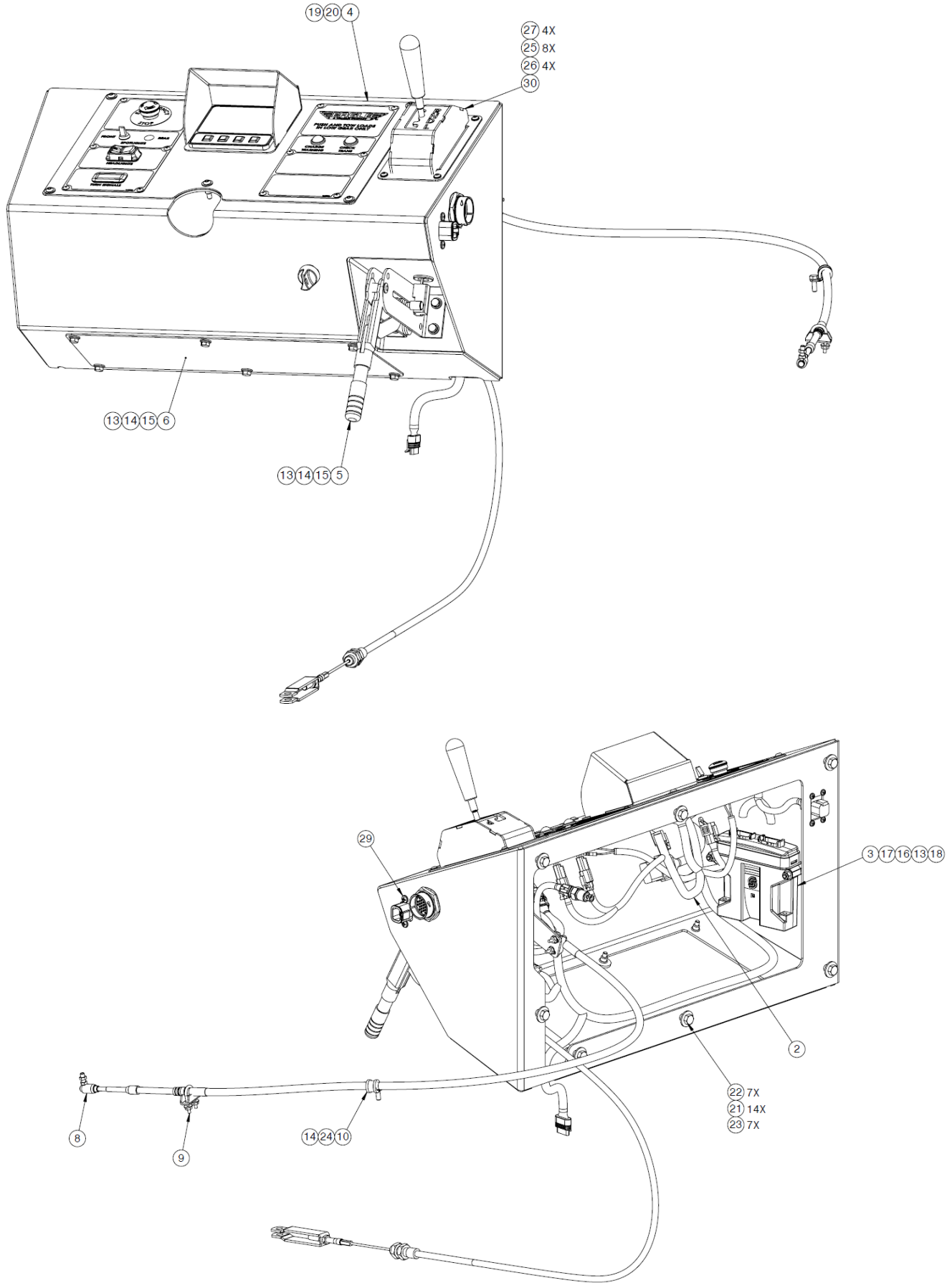
Parts List – Instrument Panel Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

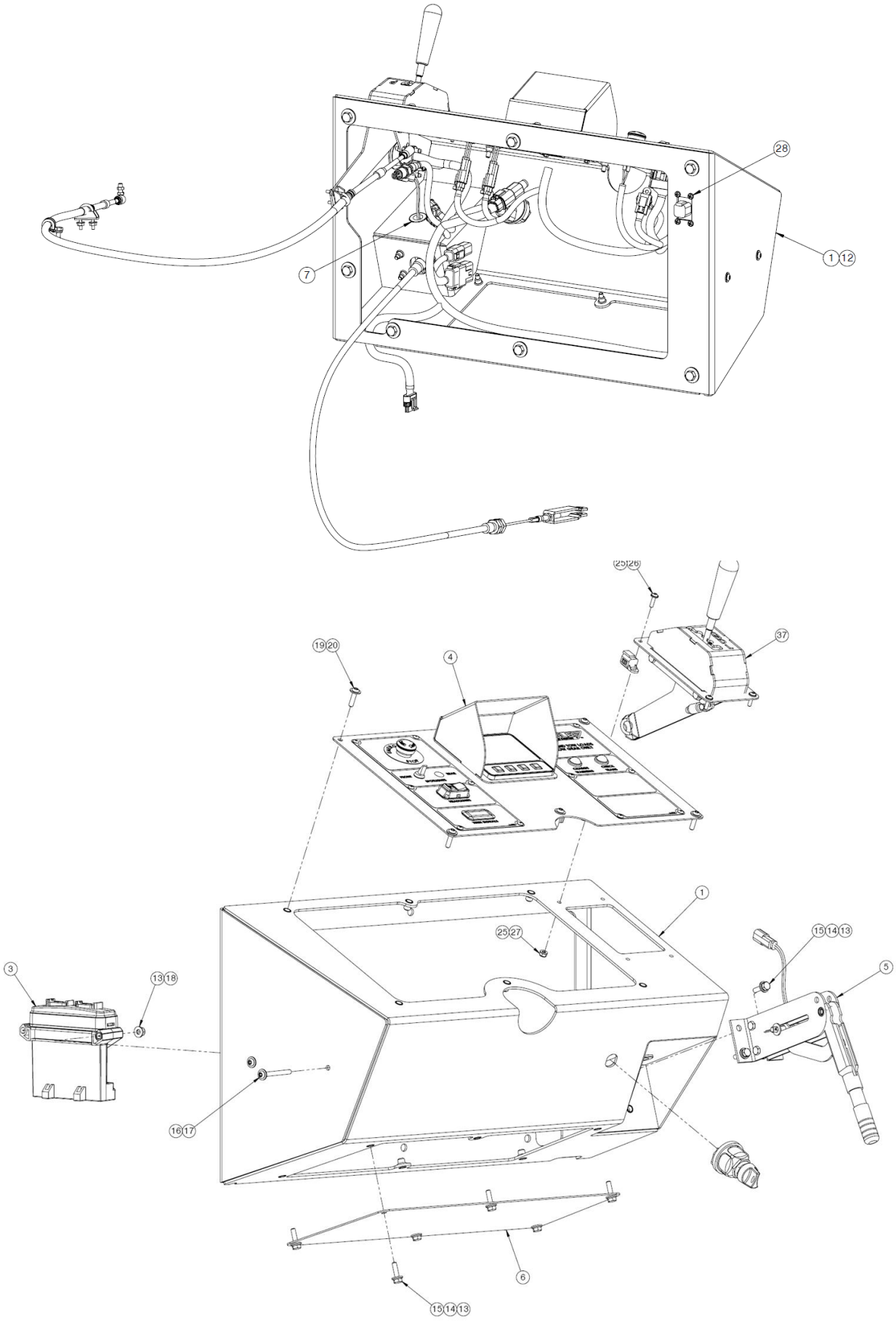
Item	Part Number	Description	Qty
1	XL00-10-001-CAR	B&W DISPLAY MODULE (DISCONTINUED)*	-
	EC-3309-P	COLOR DISPLAY MODULE	1
2	G-1114-040008	BOLT, METRIC, CLASS 8.8, M4X0.7X8	4
3	G-1352-21	RIVET, 3/16 OPEN END ALUM	12
4	G-1514-M40R	SPLIT LOCK WASHER (M4)	4
5	G-1515-M40	FLAT WASHER, M4	4
6	NVSP-14-001-CE	(ON)-OFF-(ON) SWITCH BASE	1
7	NVSP-14-002-CD	HEADLIGHT ROCKER	1
8	NVSP-14-003-CA	NGR EMPTY SWITCH PLUG	1
9	NVSP-14-008-CA	SPOTLIGHT SWITCH DASH ILLUMINATED	1
10	NVSP-14-041-CA	E-STOP BUTTON	1
11	NVSP-14-042-CA	E-STOP PLACARD	1
12	NVSP-14-044-CA	.5 IN PANEL HOLE PLUG	1
13	S-3424-00	DASH PANEL MTG PLATE (WP)	1
14	S-3425-00	DASH PANEL SUN SHIELD (P)	1
15	S-3926-00	DISPLAY BRACKET	1
16	V-2738	LH DASH PLACARD	1
17	Z-10129	ASY, IND LAMP AND CONNECTOR	2
18	Z-10863	ASY, SPOT SWITCH WIRING	1

* To replace the discontinued XL00-10-001-CAR display with the new EC-3309-P display module use kit K-5743

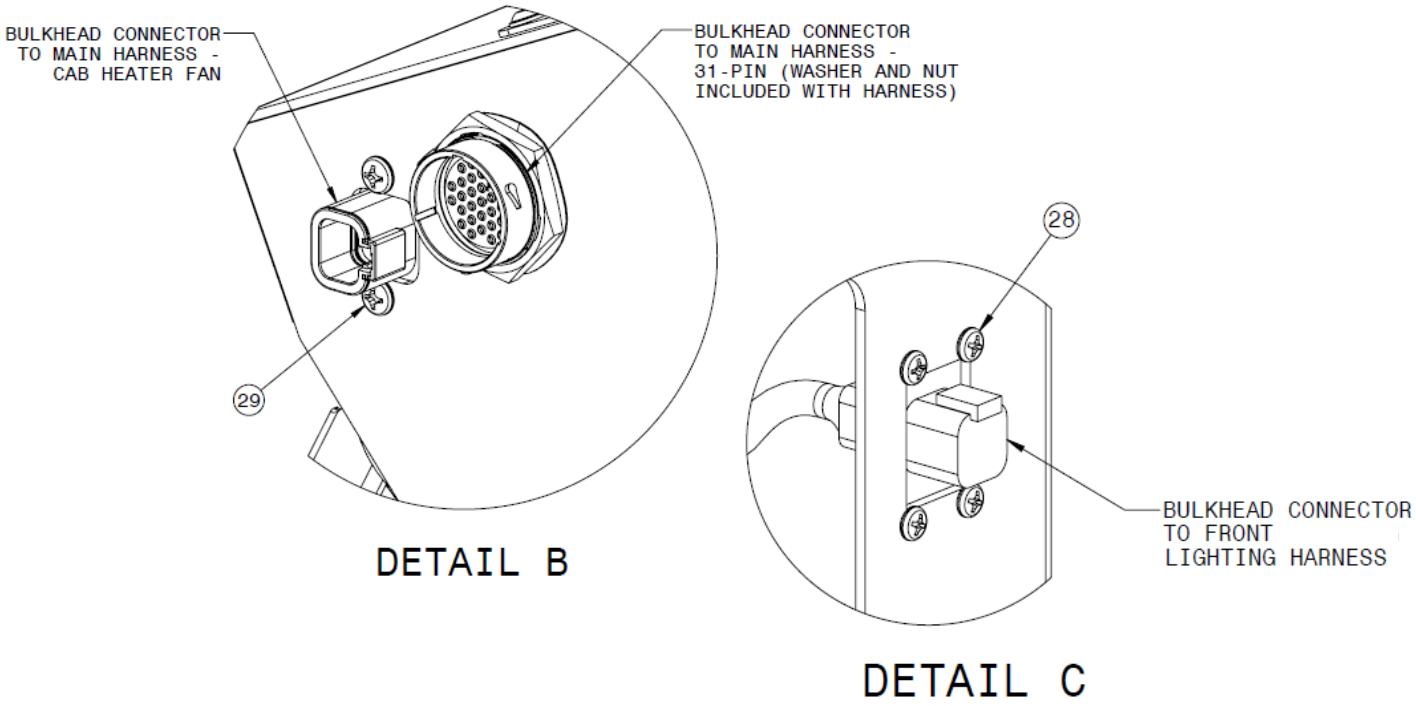
14.5 DASH PANEL ASSEMBLY

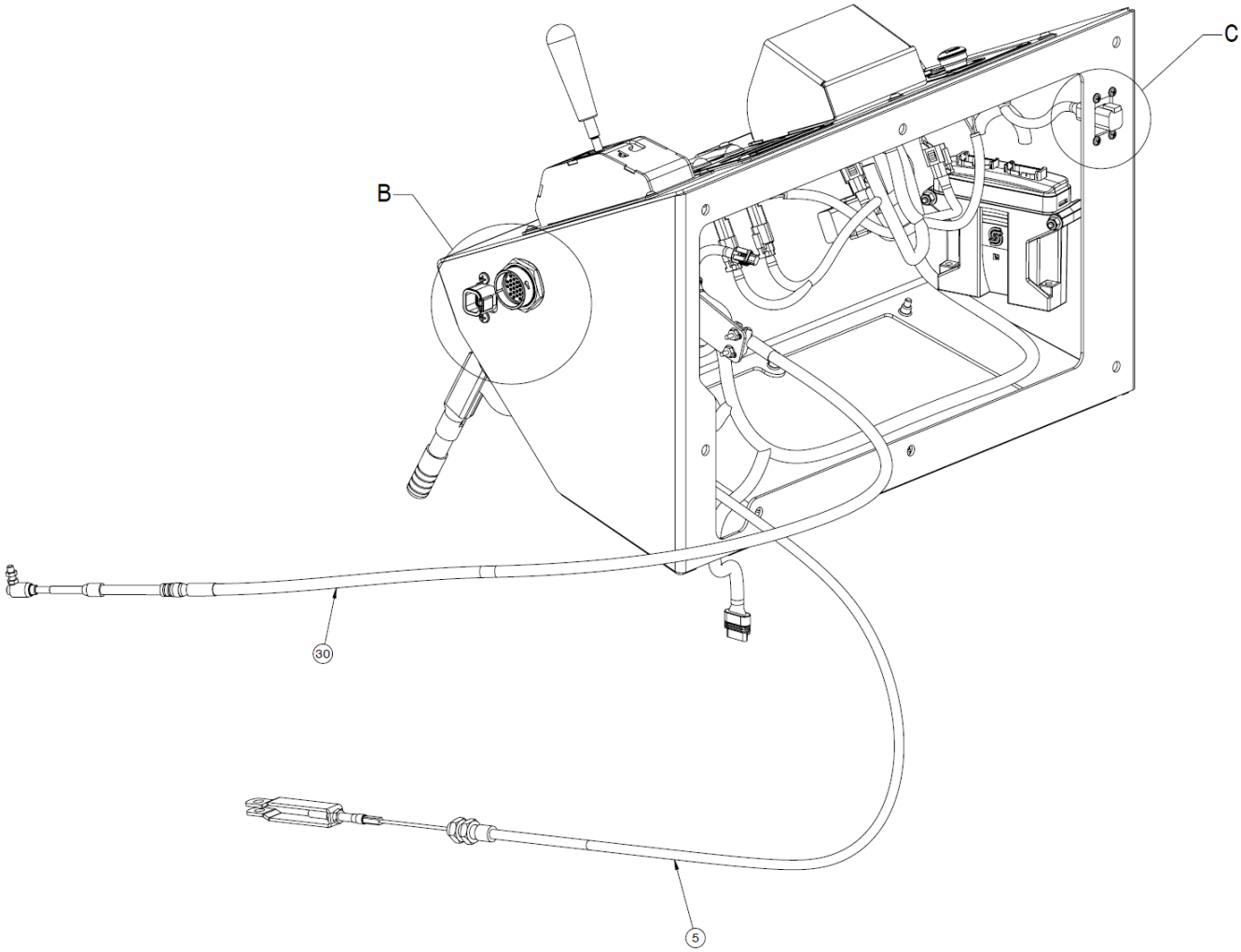


14.5 DASH PANEL ASSEMBLY *(continued)*

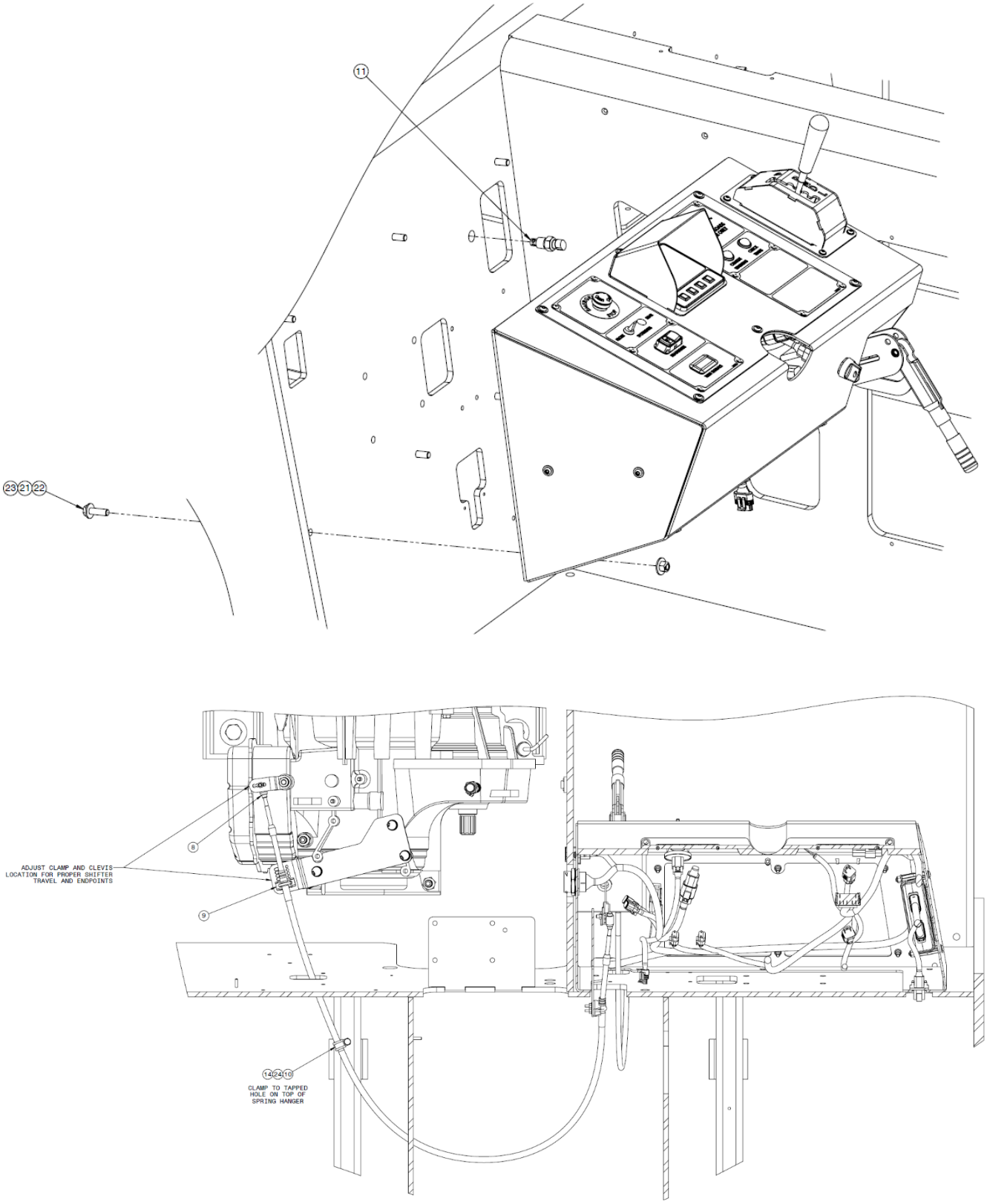


14.5 DASH PANEL ASSEMBLY *(continued)*



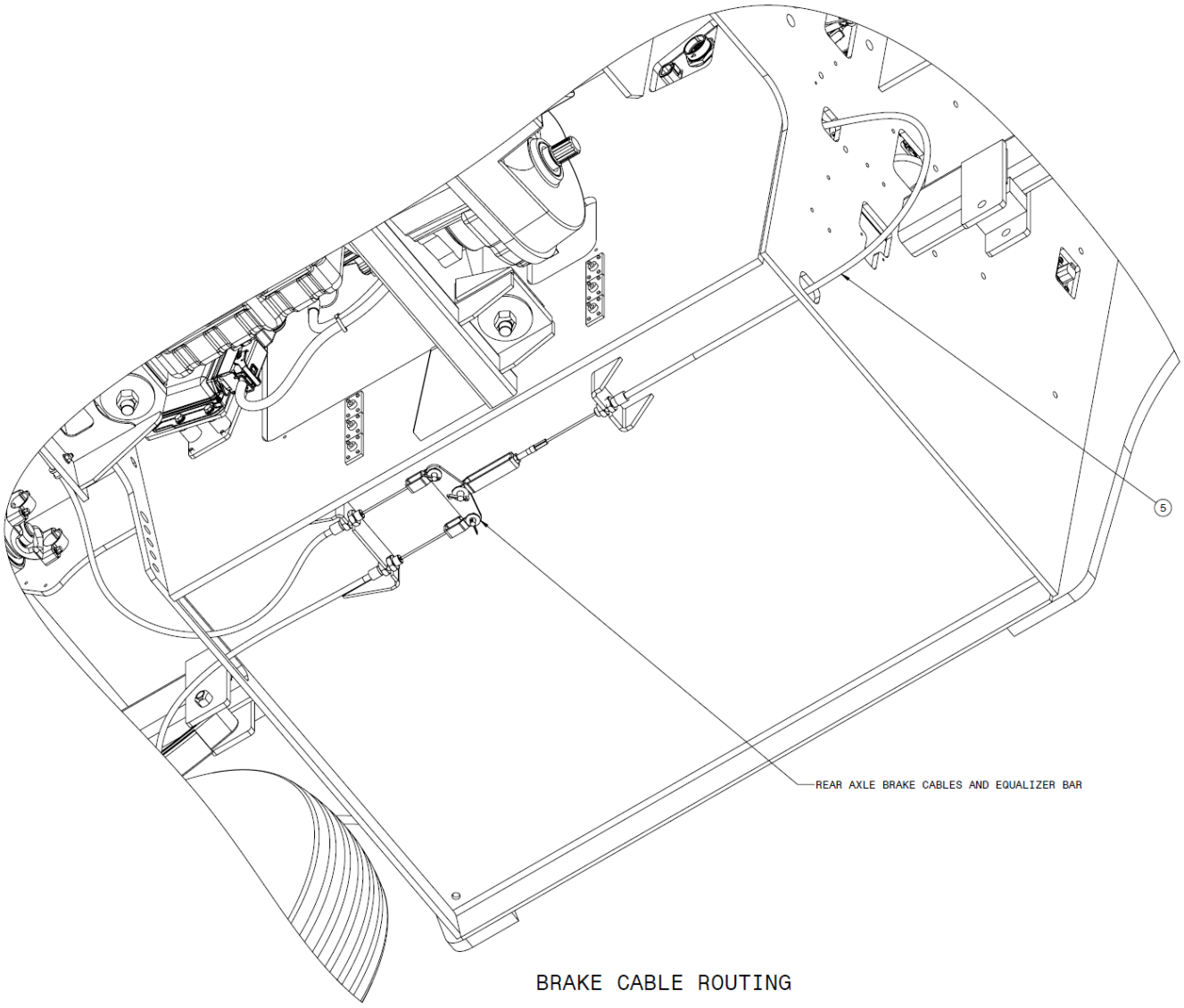


14.5 DASH PANEL ASSEMBLY *(continued)*



SECTION D-D
SHIFT CABLE ROUTING

14.5 DASH PANEL ASSEMBLY *(continued)*



BRAKE CABLE ROUTING

14.5 DASH PANEL ASSEMBLY *(continued)*

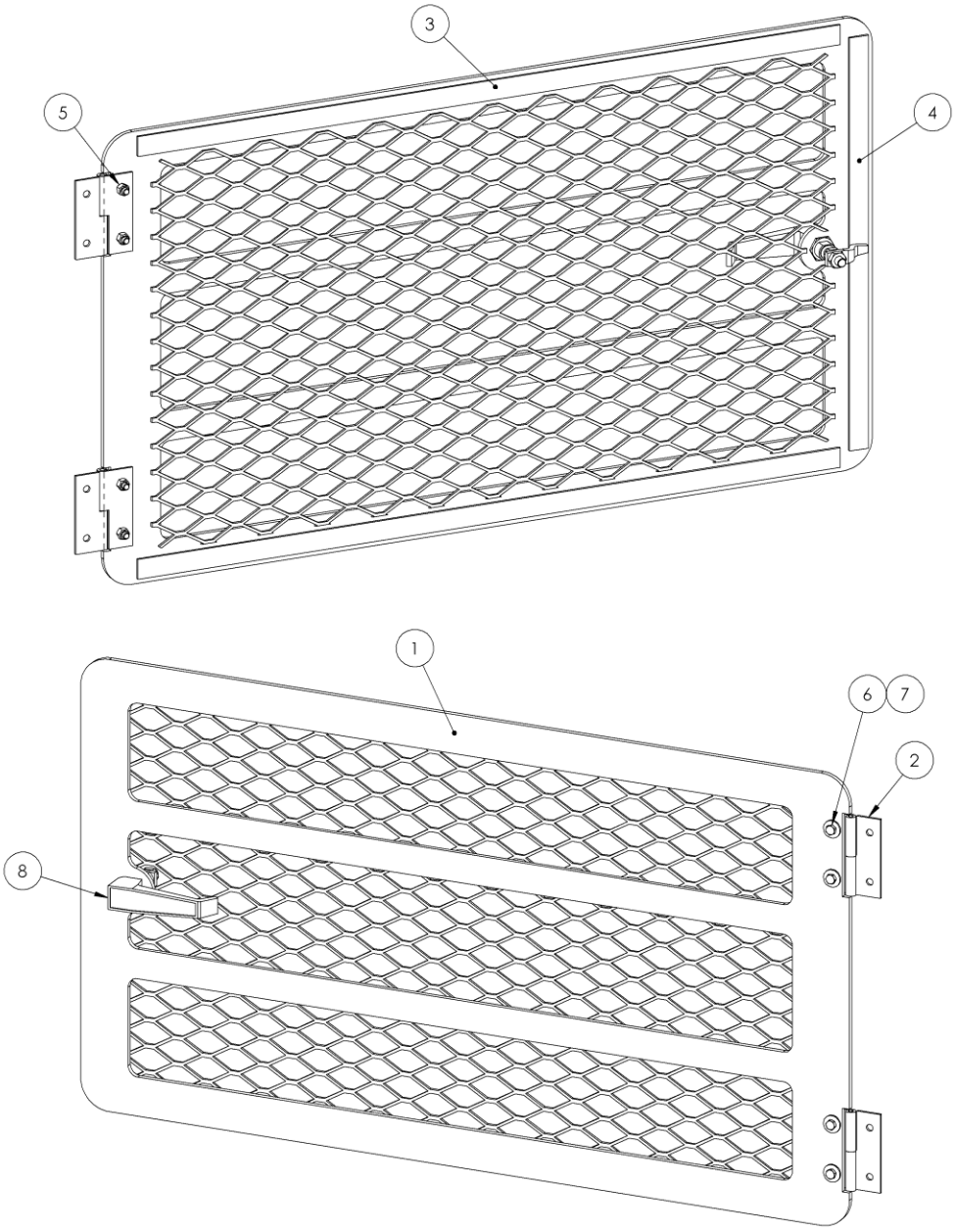
Parts List – Dash Panel Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10012-00	WLD, OPERATOR DASH PANEL (WP)	1
2	EC-3138	DASH PANEL HARNESS	1
3	EC-3137-P	CONTROLLER, PLUS+1 24 PIN PROG	1
4	Z-10013	ASY, INSTRUMENT PANEL	1
5	Z-9881	ASY, PARK BRAKE HANDLE	1
6	S-3426-00	COVER, UNDER DASH (P)	1
7	H-1901-22	GROMMET	1
8	A-TT4-00249	MORSE TRANSMISSION BALL JOINT	1
9	A-TT4-00247	TRANS CABLE U-BOLT	1
10	H-3521-03	CLAMP, CUSHIONED LOOP 1/2"	1
11	H-4626	AIR TEMP SENSOR	1
12	G-1439-1050-S	NUTSERT, THIN WALL 1/4-20	16
13	G-1250-1050N	FLATWASHER, 1/4 NARROW	12
14	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	11
15	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	10
16	G-1704-1050N	FLATWASHER. 1/4 SST NARROW	2
17	G-1476-105024	SCREW, 1/4-20 X 2-1/2" LG. SST SOC BUTT. HD CAP	2
18	G-1202-1050	STOPNUT, 1/4-20 ELASTIC	2
19	G-1503-1050N	FLATWASHER. 1/4 SST NARROW	6
20	G-1476-105010	SCREW, 1/4-20 X 1.0" LG. SST SOC BUTT. HD CAP	6
21	G-1250-1070W	FLATWASHER, 3/8 WIDE	14
22	G-1420-107012	BOLT, 3/8-16 X 1.25" HEX HD GR 8	7
23	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	7
24	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	1
25	G-1503-1030N	FLATWASHER. #10 SST NARROW	8
26	G-1476-103106	SCREW, #10-32 X 3/4" LG. SST SOC BUTT. HD CAP	4
27	G-1202-1035	STOPNUT, #10-32 ELASTIC	4
28	G-1178-103005	SCREW, #10 X 5/8 PAN HEAD SELF TAPPING	4
29	G-1178-105006	SCREW, 1/4 X 3/4 PAN HEAD SELF TAPPING	2
30	Z-12085	SHIFTER ASSEMBLY	1

15.0 CHASSIS

15.1 SIDE DOOR SUB

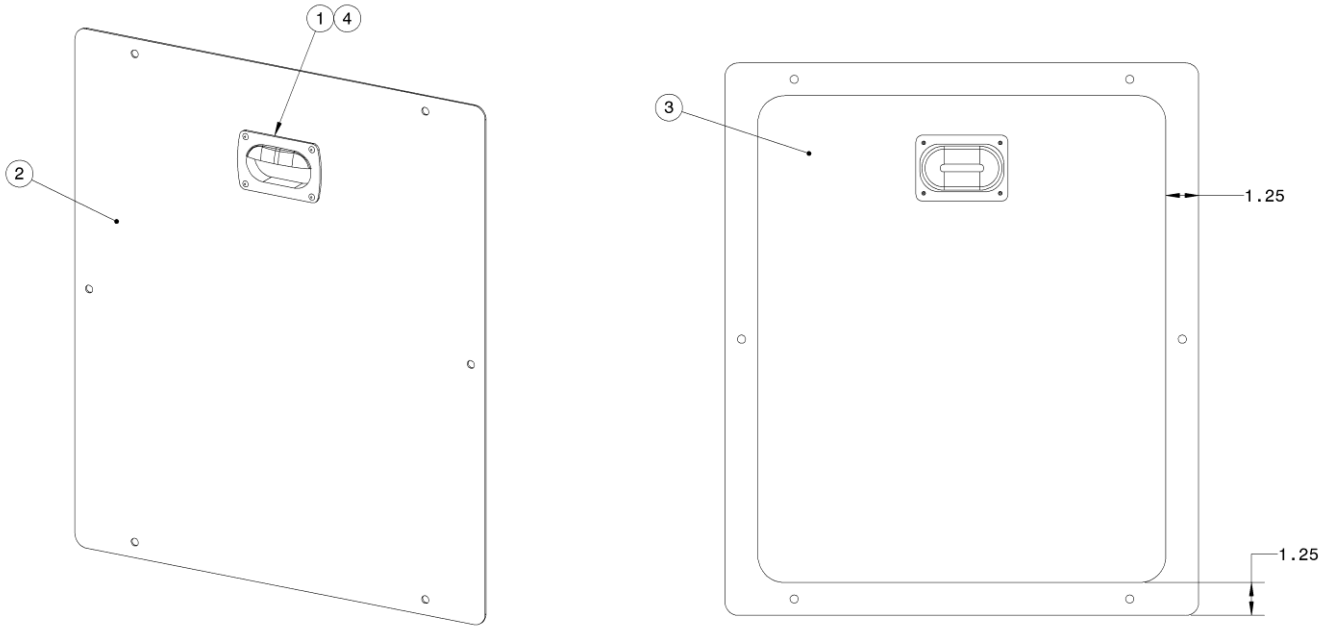


Parts List – Side Door Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-9803-00	SIDE DOOR WELDMENT (WP)	1
2	H-4256	SIDE DOOR HINGE	2
3	H-1204-10-037.0	TAPE, NEOPRENE FOAM SEALING	2
4	H-1204-10-021.0	TAPE, NEOPRENE FOAM SEALING	1
5	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
6	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	4
7	G-1250-1060W	FLATWASHER, 5/16 WIDE	4
8	62-10-603-20	LATCH SIDE ACCESS DOOR	1

15.2 ENGINE ACCESS PANEL SUB

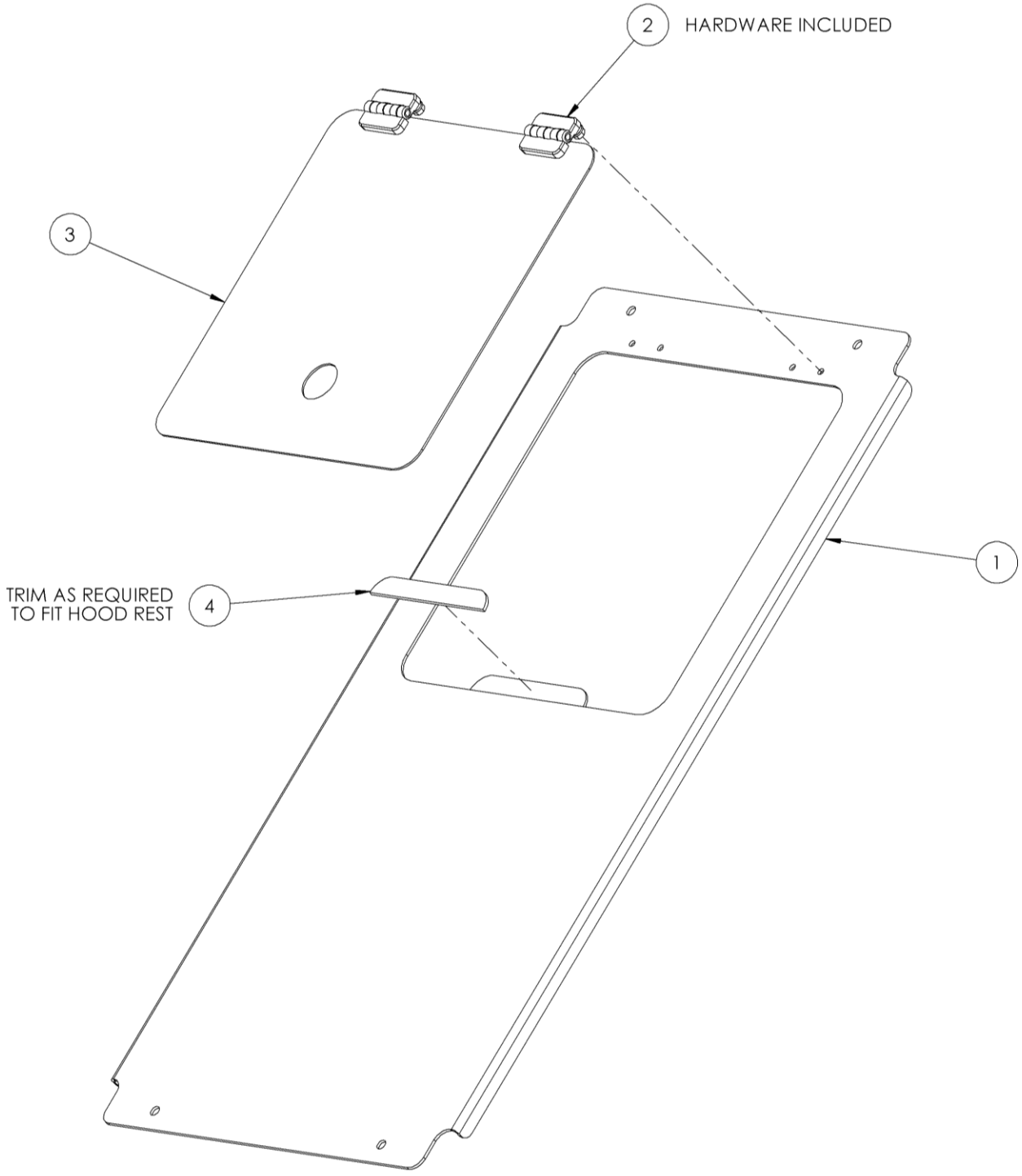


Parts List – Engine Access Panel Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	ST00-14-018-CA	RECESSED HANDLE	1
2	S-3325-00	ENGINE ACCESS PANEL (WP)	1
3	H-4259	ACCESS PANEL INSULATION	1
4	G-1352-07	RIVET, 1/8 OPEN-END ALUM	4

15.3 FRONT SIGHT TUNNEL COVER SUB

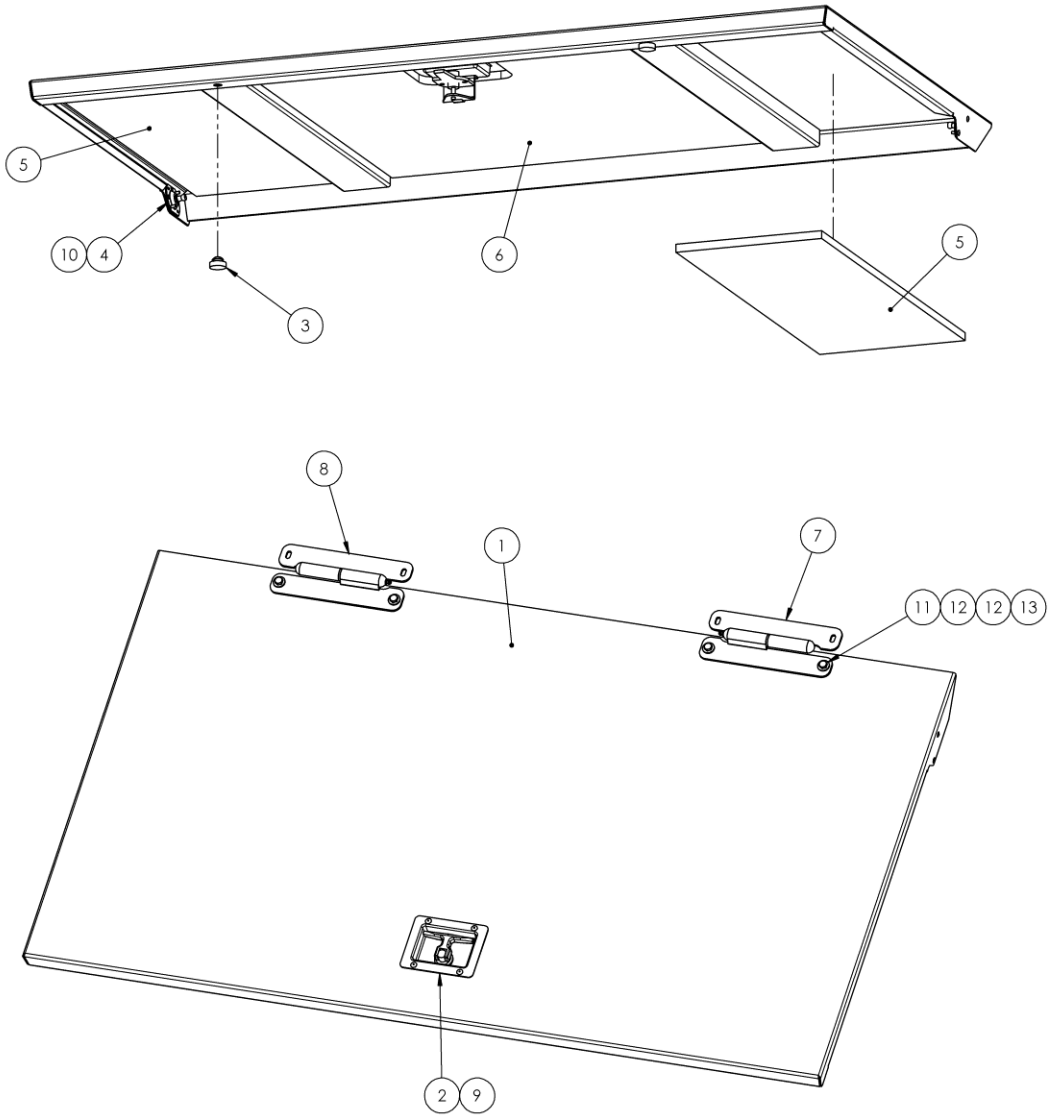


Parts List – Front Sight Tunnel Cover Sub

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-9800-00	FR SIGHT TUNNEL COVER WLD (WP)	1
2	XL00-02-069-CA	SMALL HINGE	2
3	S-3321-00	FR SIGHT TUNNEL ACC COVER (WP)	1
4	H-1204-06-06.0	TAPE, NEOPRENE FOAM SEALING	1

15.4 SIDE ENGINE COVER SUB

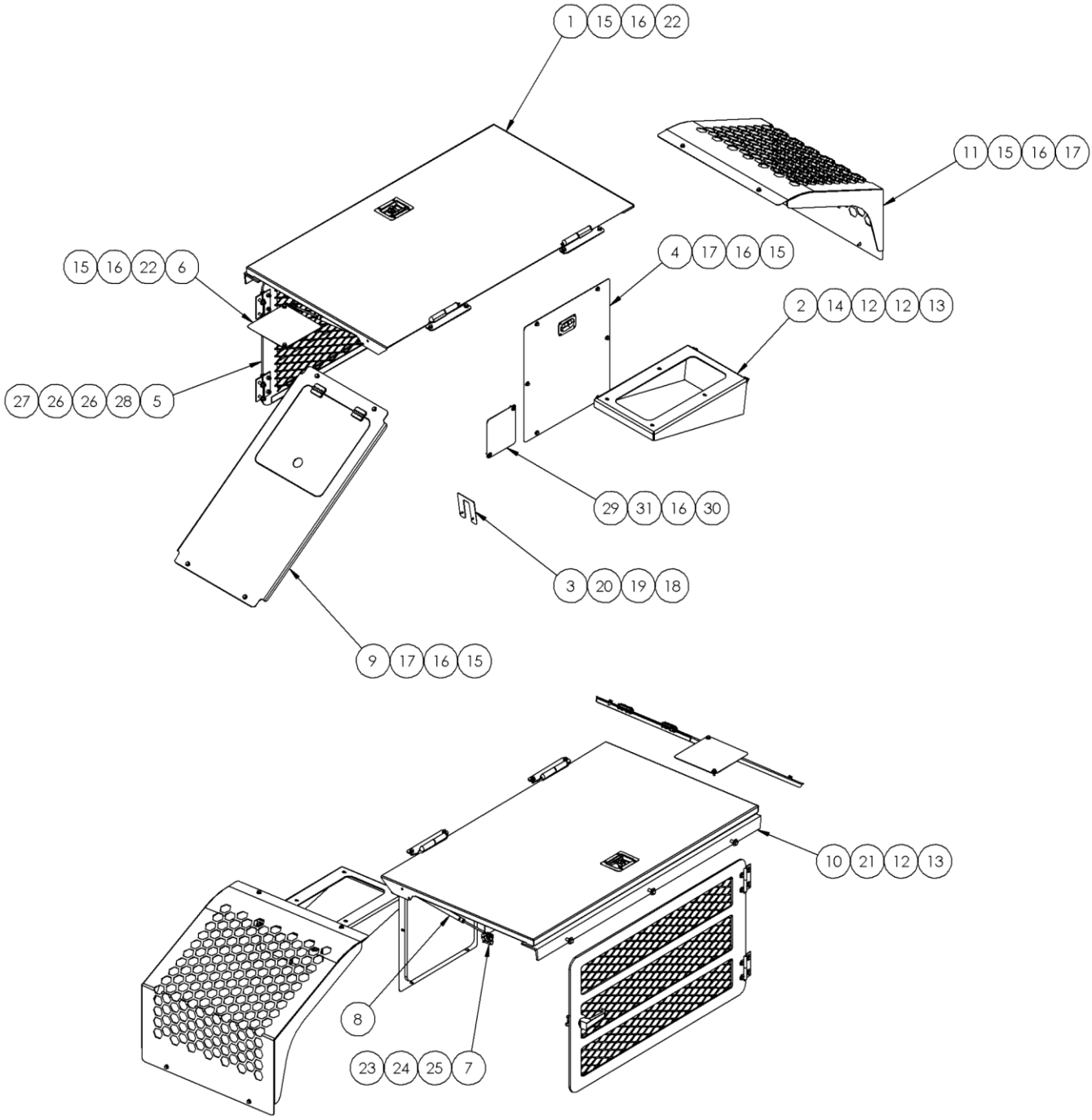


Parts List – Side Engine Cover Sub

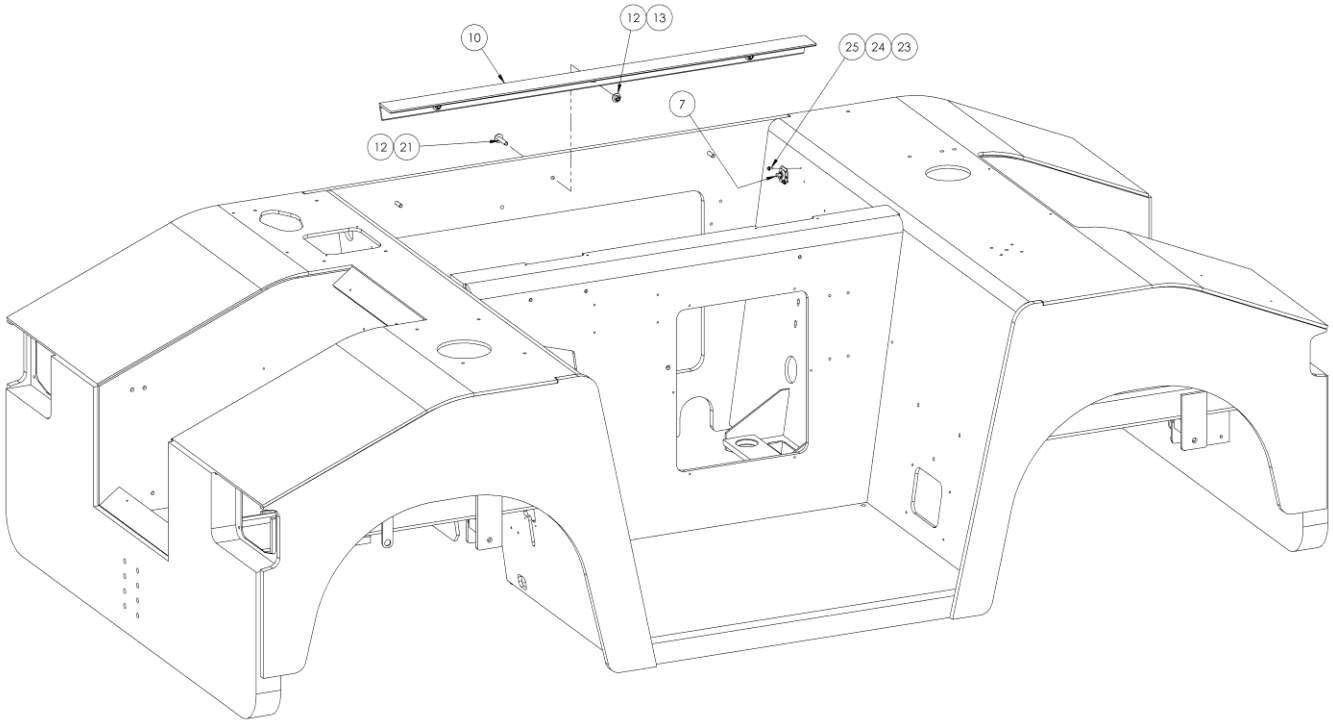
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

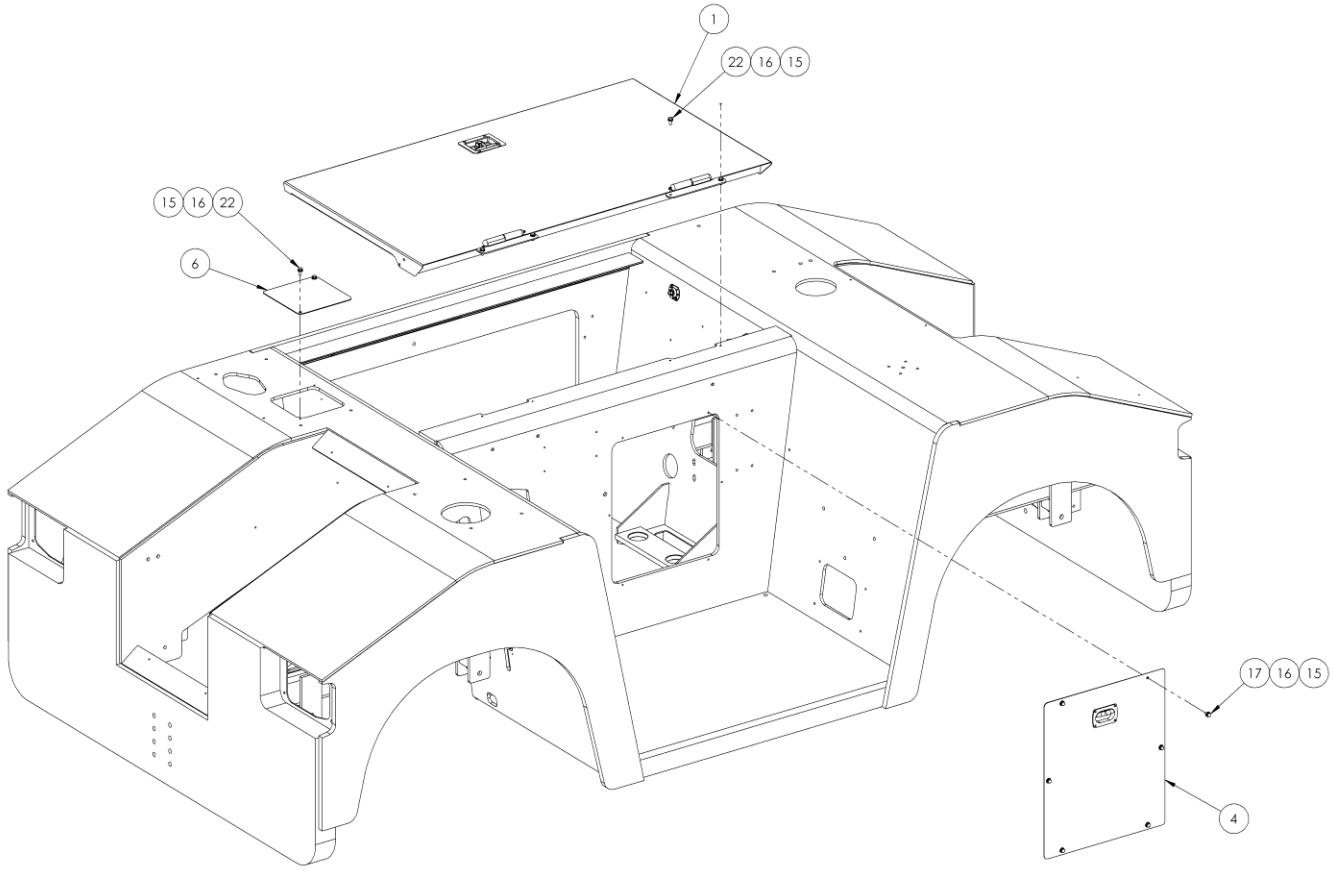
Item	Part Number	Description	Qty
1	Z-9798	SIDE HOOD WELDMENT	1
2	C-TT4-0012-2	T HANDLE LATCH	1
3	NVSP-21-004-CA	RUBBER PRESS-IN BUMPER	2
4	SATS-14-003-CA	GAS SHOCK MOUNT	2
5	H-4254	HOOD INSULATION A	2
6	H-4255	HOOD INSULATION B	1
7	Z-9805-00	SIDE HOOD HINGE FR (WP)	1
8	Z-9806-00	SIDE HOOD HINGE RR (WP)	1
9	G-1351-18-SS	RIVET, 3/16 OPEN-END SS	4
10	G-1351-13-SS	RIVET, 5/32 OPEN-END SS	4
11	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	4
12	G-1250-1050W	FLATWASHER, 1/4 WIDE	8
13	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	4

15.5 CHASSIS COMPONENTS

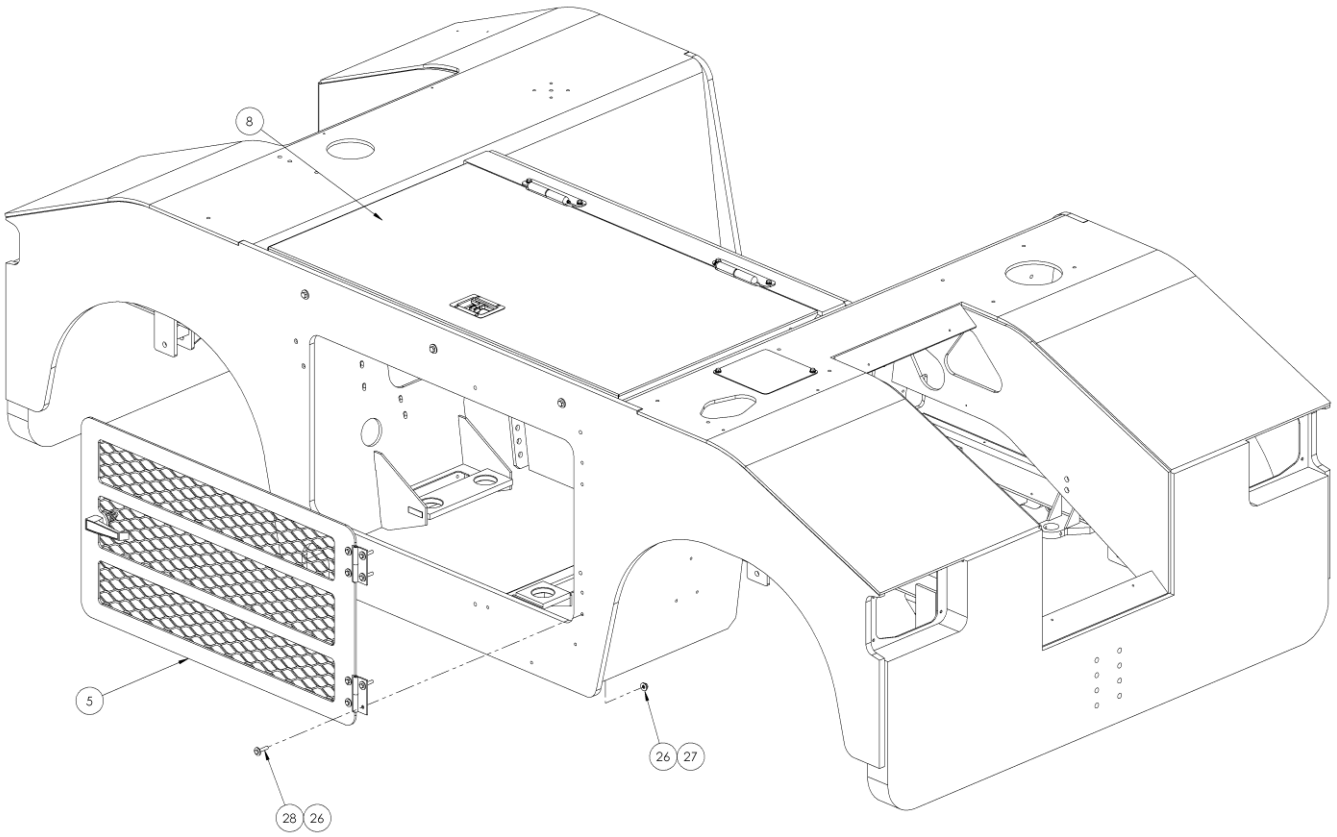


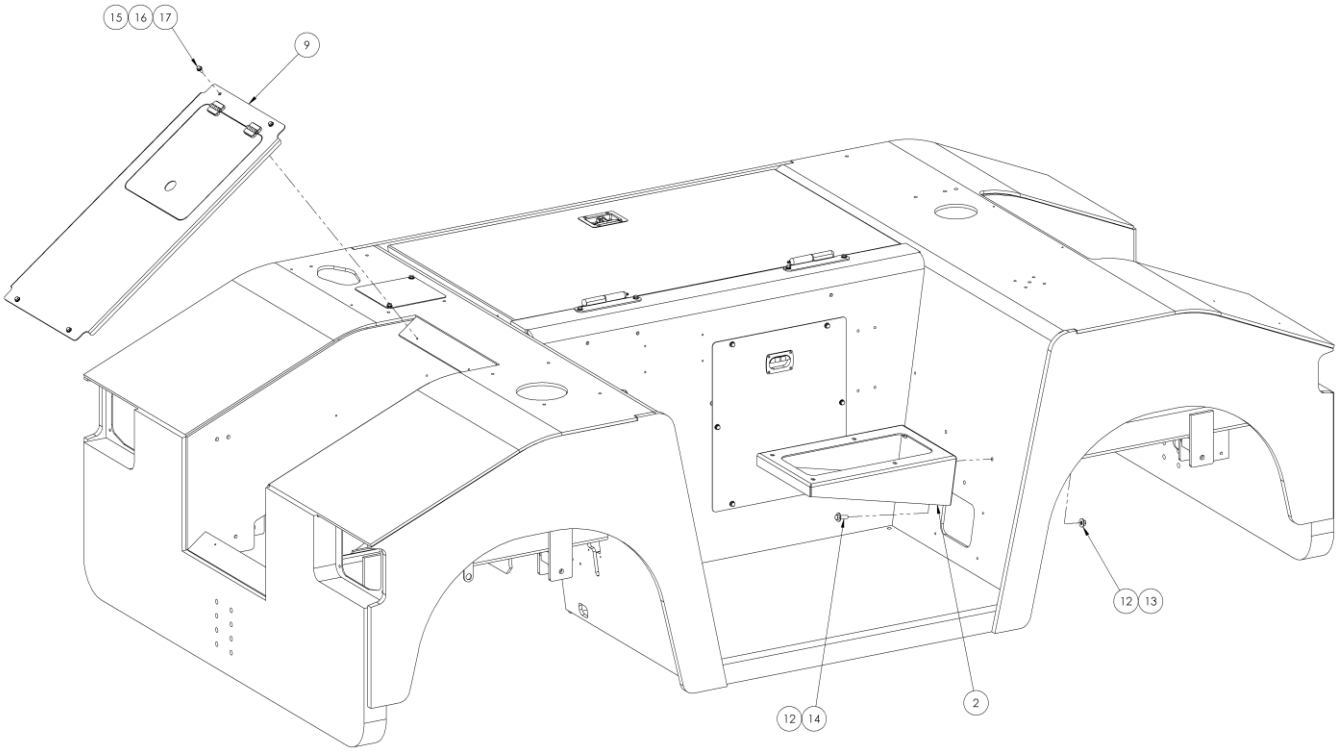
15.5 CHASSIS COMPONENTS *(continued)*



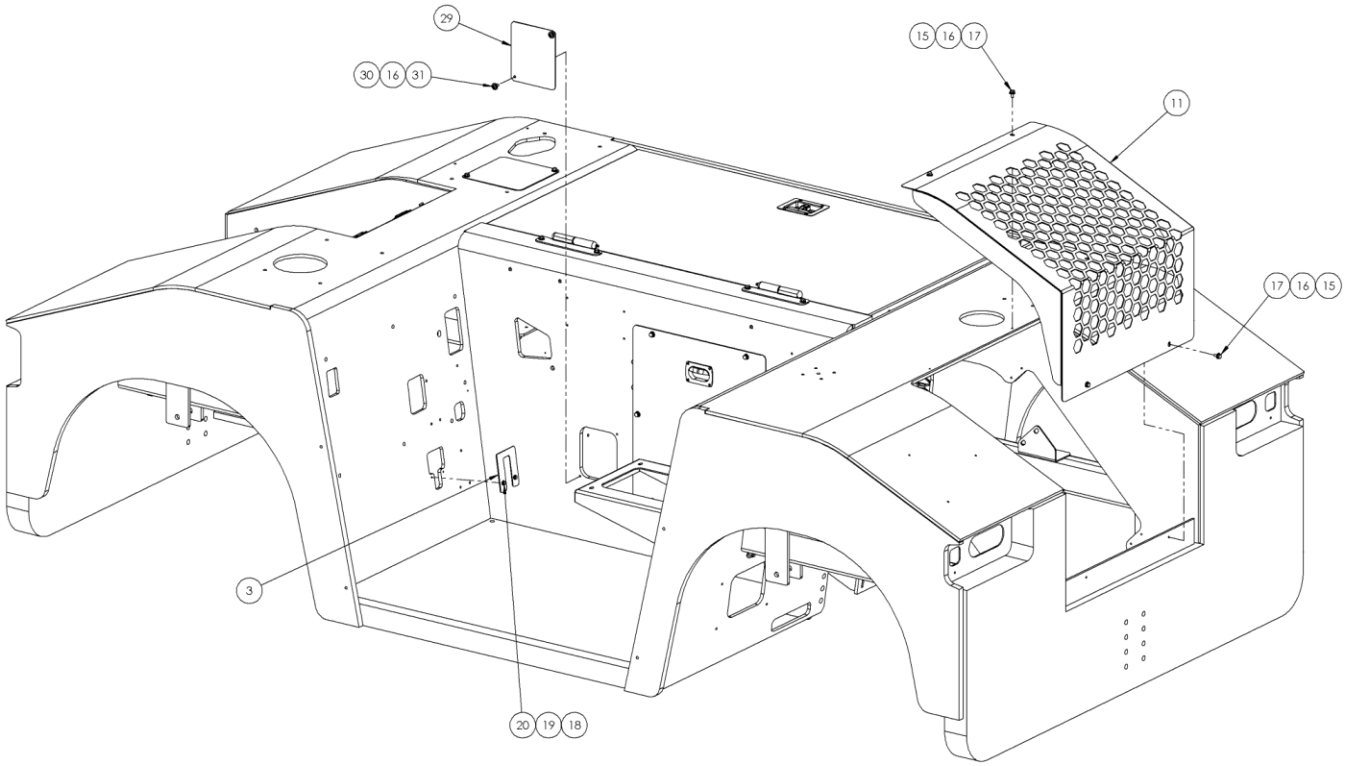


15.5 CHASSIS COMPONENTS *(continued)*





15.5 CHASSIS COMPONENTS *(continued)*



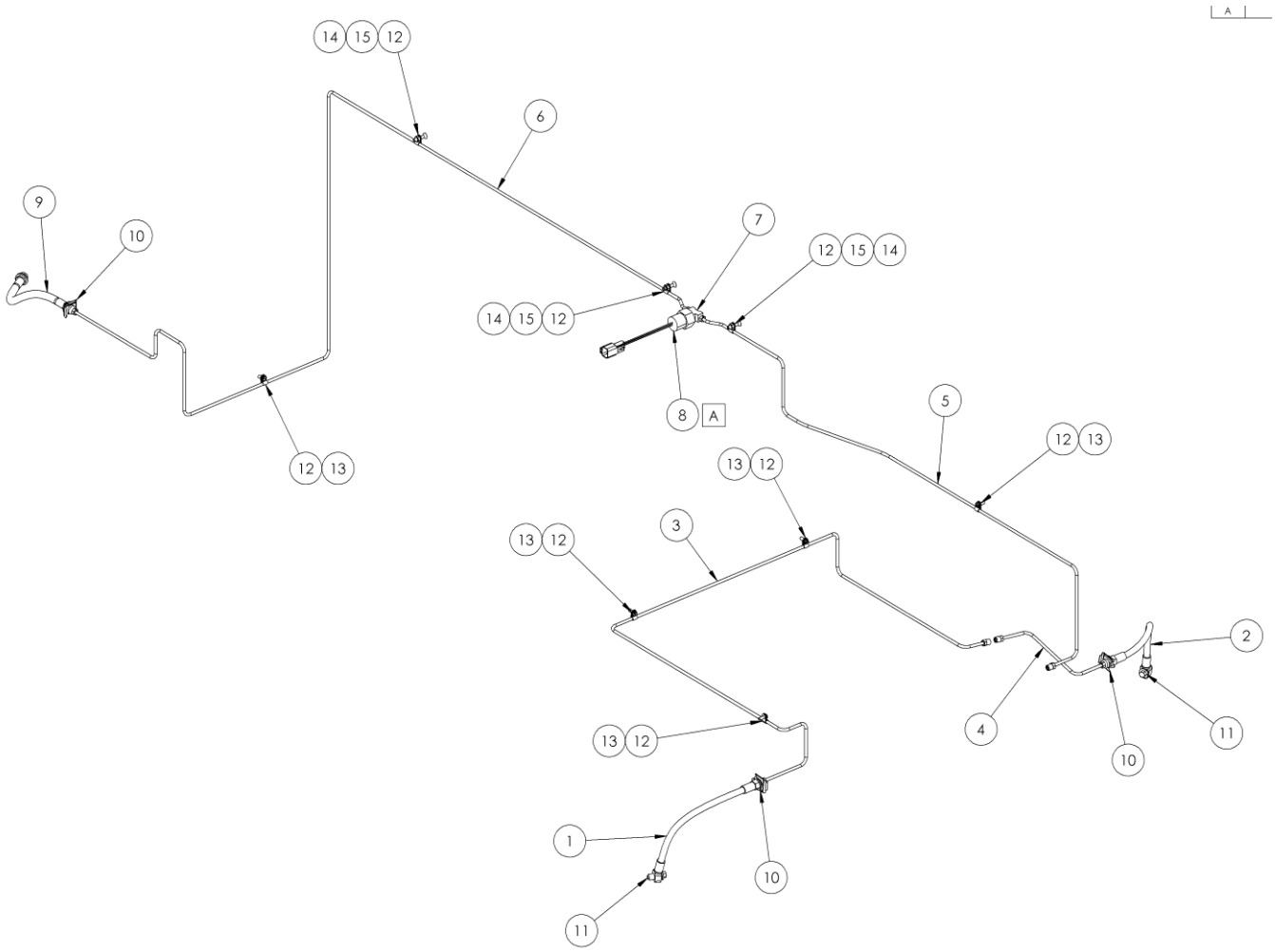
15.5 CHASSIS COMPONENTS *(continued)*

Parts List – Chassis Components

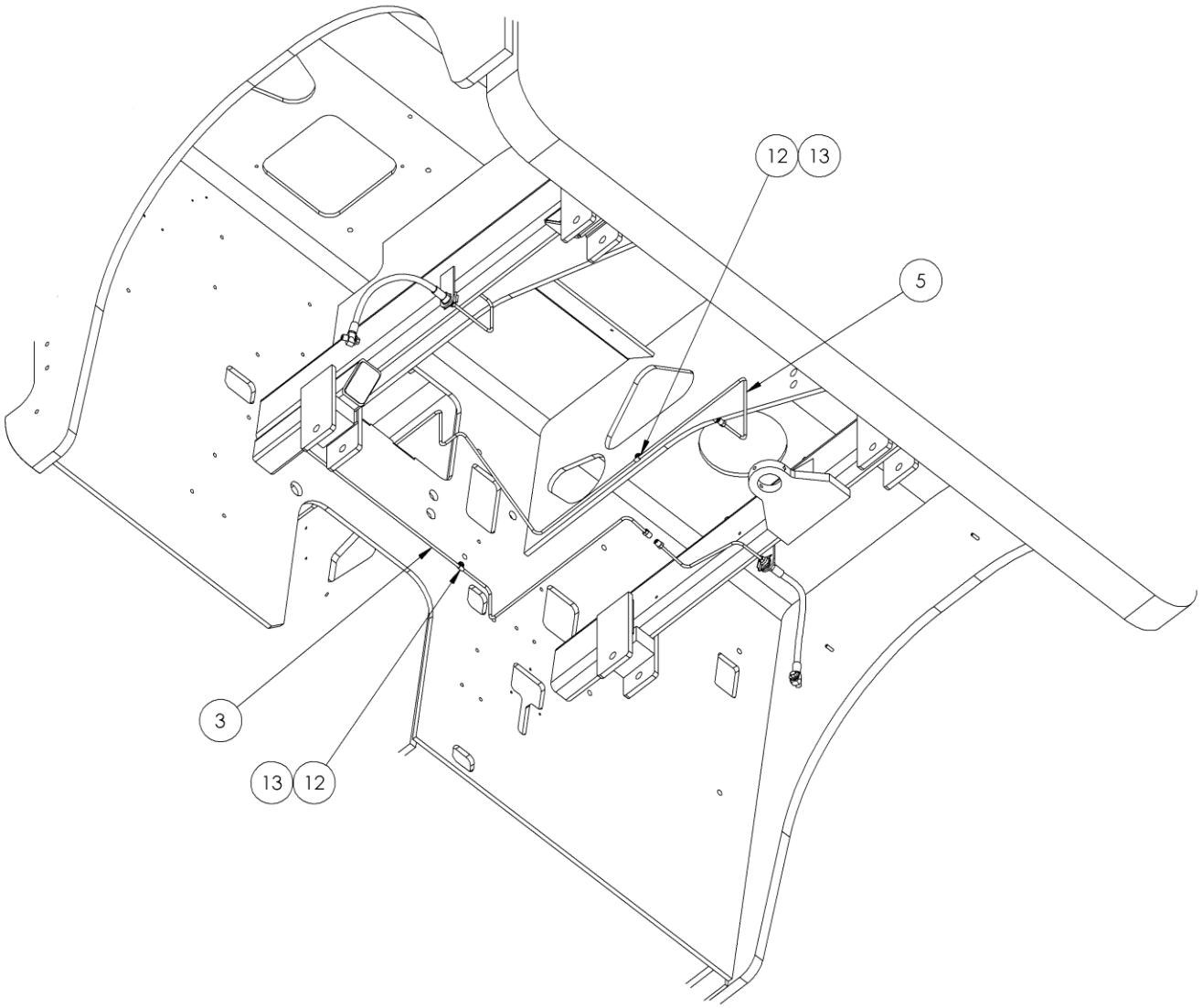
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	See Section 15.4	SIDE HOOD ASSEMBLY	1
2	J-6755-00	SEAT MTG BRACKET (P)	1
3	S-3322-00	BRAKE HOLE COVER (WP)	1
4	See Section 15.2	ENGINE ACCESS PANEL ASY	1
5	See Section 15.1	SIDE DOOR ASSEMBLY	1
6	S-3323-00	FUEL TANK ACCESS PANEL (WP)	1
7	SATS-14-003-CA	GAS SHOCK MOUNT	2
8	LAVT-14-001-CA	GAS SPRING - 60 LB 19.68 IN X 8 STROKE	2
9	See Section 15.3	FRONT SIGHT TUNNEL COVER ASY	1
10	A-1337-00	HOOD SUPPORT ANGLE (P)	1
11	Z-9922-00	REAR SIGHT TUNNEL COVER (P)	1
12	G-1250-1070W	FLATWASHER, 3/8 WIDE	12
13	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	6
14	G-1420-107012	BOLT, 3/8-16 X 1.25" HEX HD GR 8	3
15	G-1250-1050N	FLATWASHER, 1/4 NARROW	20
16	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	22
17	G-1100-105005	BOLT, 1/4-20 X 5/8" LG. HEX HD GR 5	14
18	G-1250-1030N	FLATWASHER, #10 NARROW	2
19	G-1251-1030R	LOCKWASHER, #10 REGULAR	2
20	G-1150-103504	SCREW, #10-32 X 1/2" LG HEX HD MACHINE	2
21	G-1420-107020	BOLT, 3/8-16 X 2.0" HEX HD GR 8	3
22	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	6
23	G-1250-1020N	FLATWASHER, #8 NARROW	4
24	G-1251-1020R	LOCKWASHER, #8 REGULAR	4
25	G-1150-102004	SCREW, #8-32 X 1/2" LG HEX HD MACHINE	4
26	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
27	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
28	G-1420-106014	BOLT, 5/16-18 x 1-1/2 HEX HD GR 8	4
29	S-3912-00	ACCESS PANEL (WP)	1
30	G-1250-1050W	FLATWASHER, 1/4 WIDE	2
31	G-1154-105006	SCREW, 1/4-20 X 3/4" LG. SOC BUTT. HD CAP	2

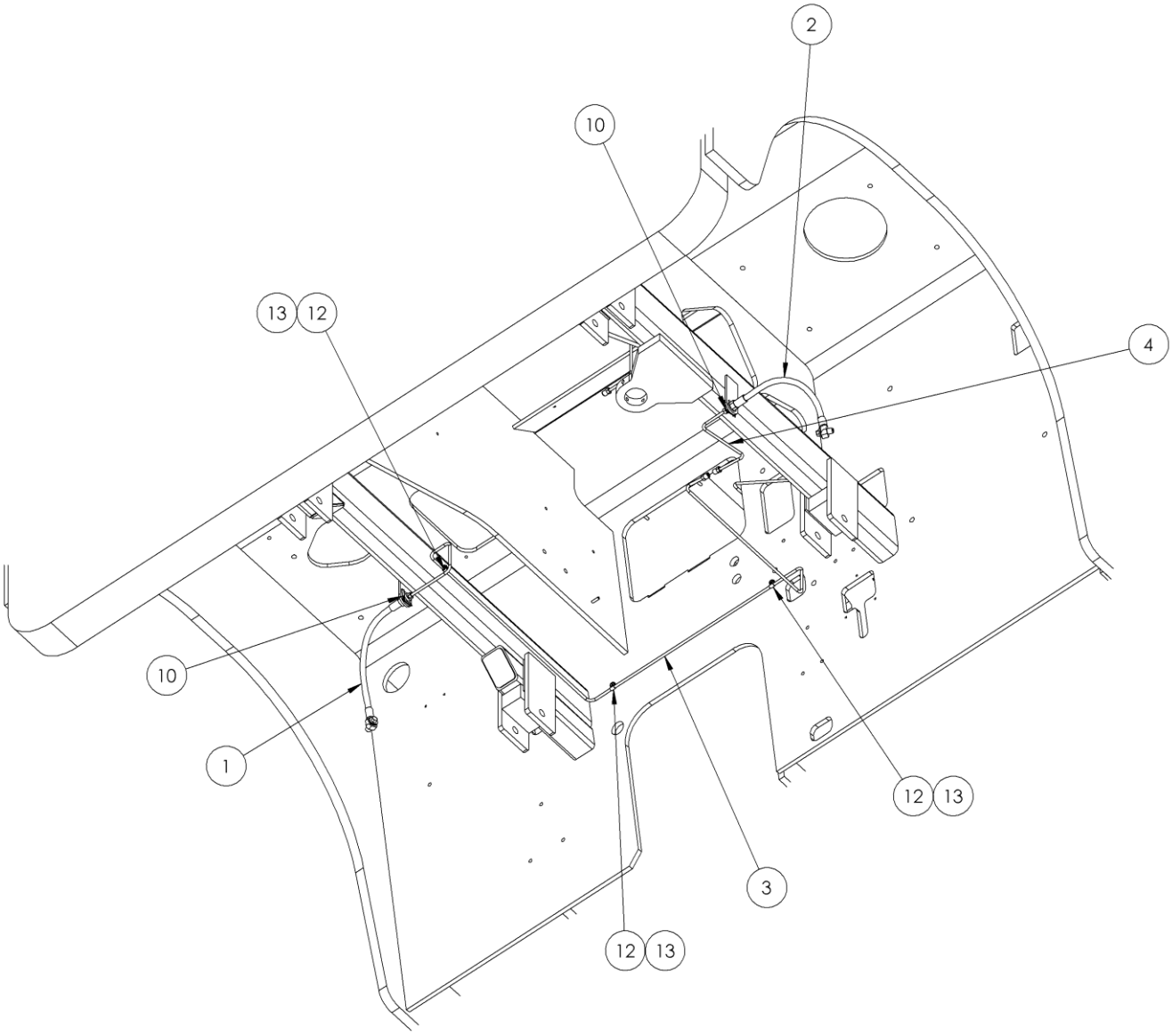
16.0 BRAKES


A
14 15 12
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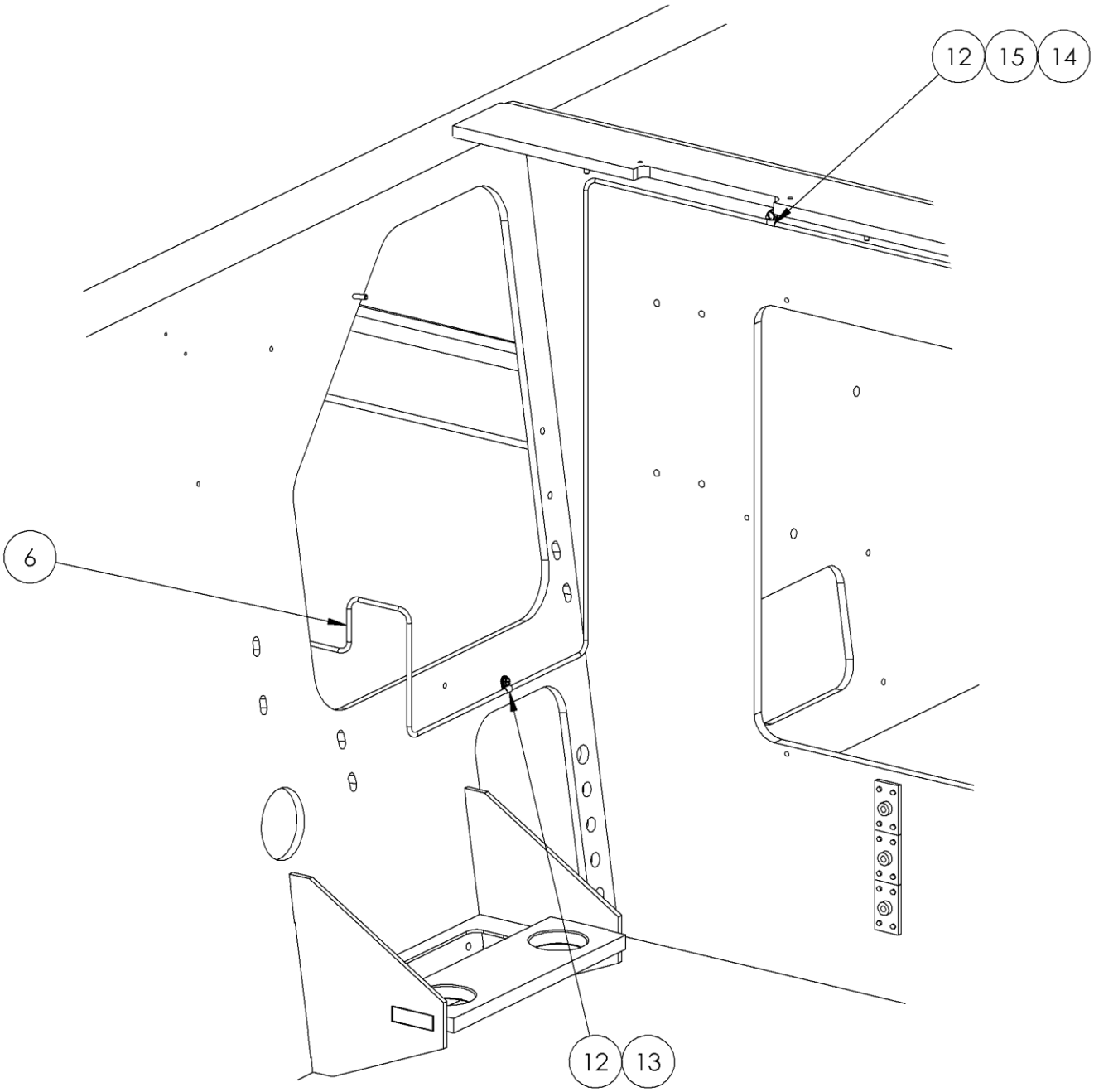
16.0 BRAKES *(continued)*



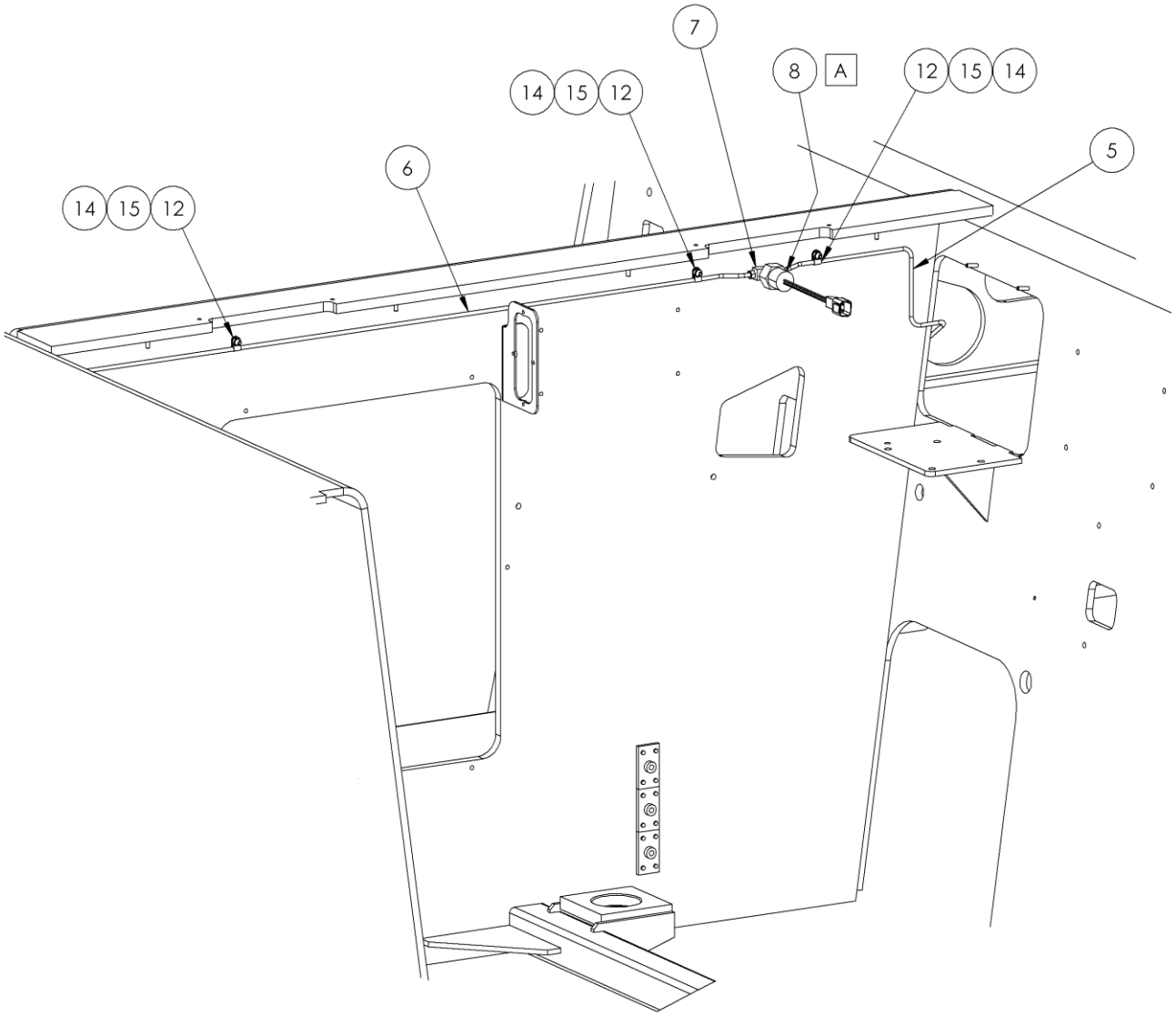
16.0 BRAKES *(continued)*



16.0 BRAKES *(continued)*

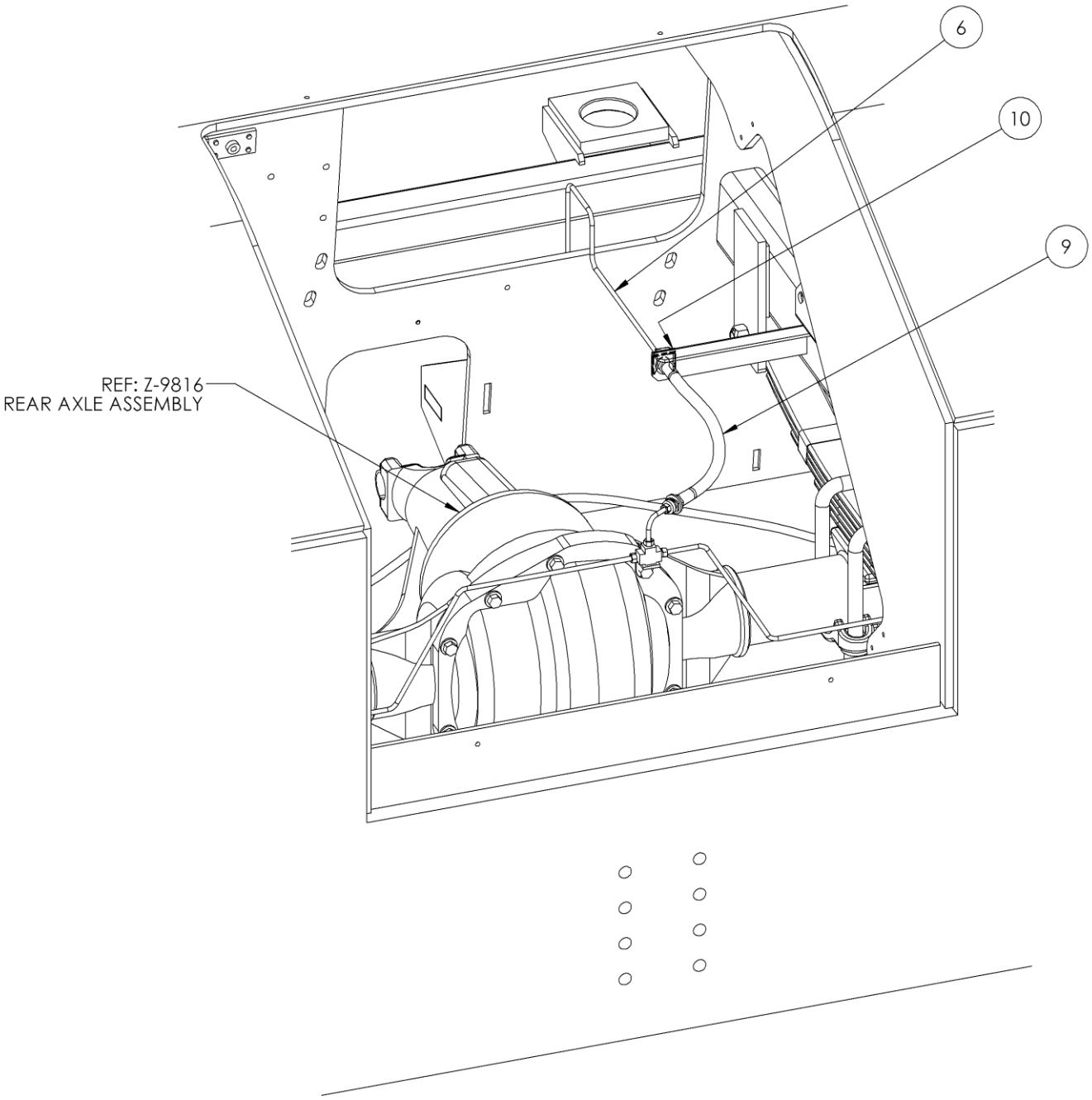


16.0 BRAKES *(continued)*

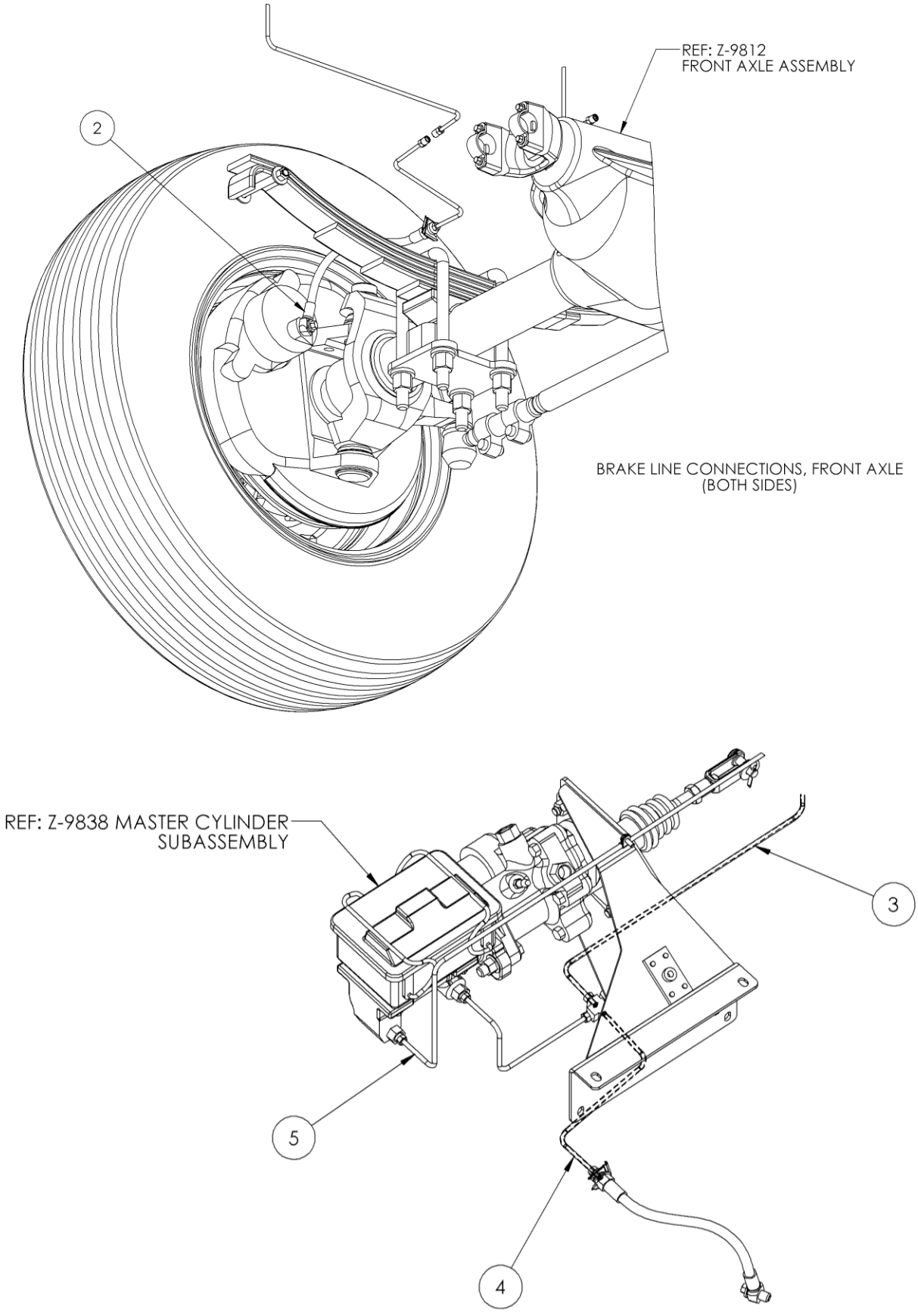


A INSTALL USING LOCTITE 565 PIPE SEALANT OR EQUIVALENT

16.0 BRAKES *(continued)*



16.0 BRAKES *(continued)*



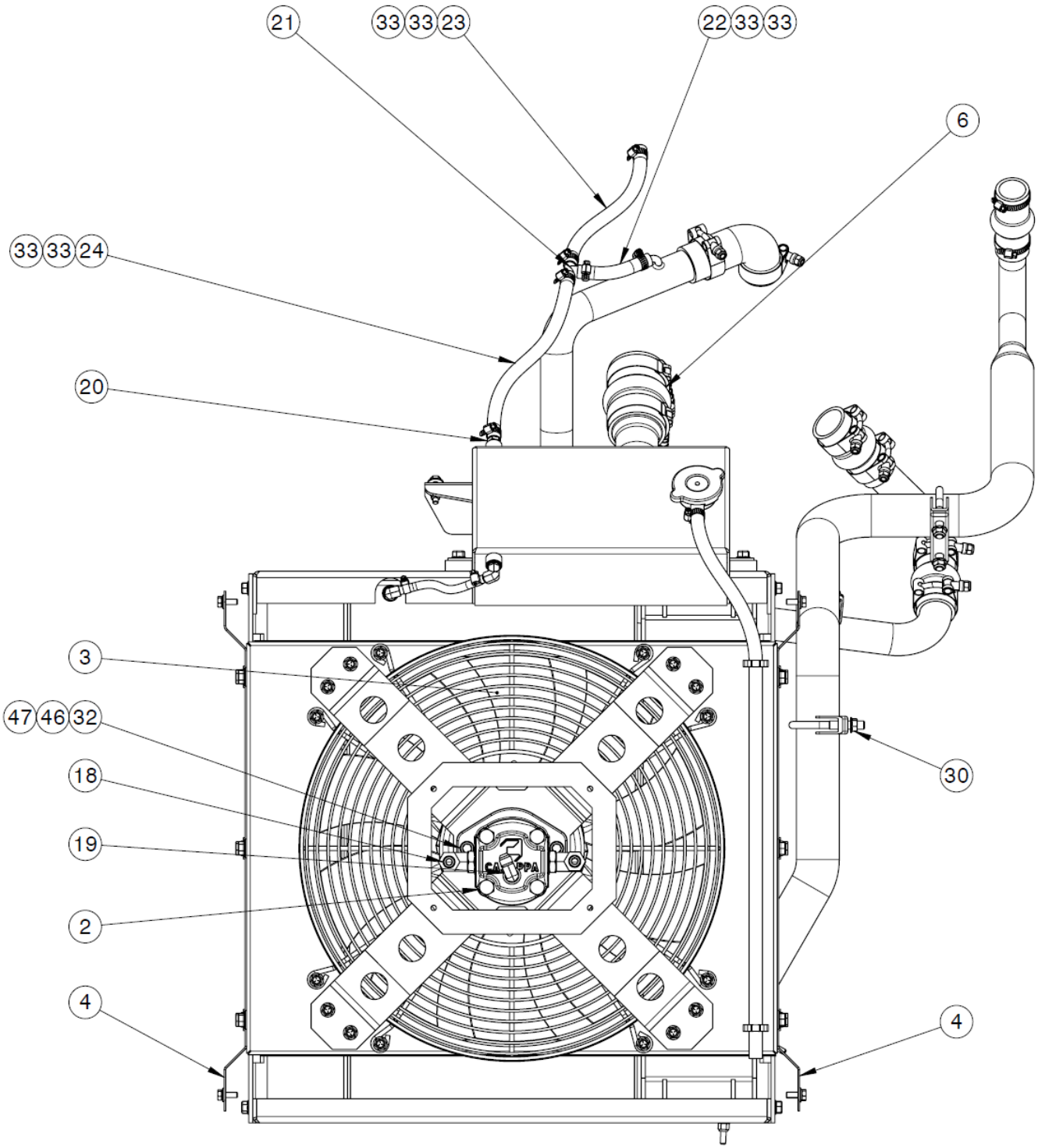
16.0 BRAKES *(continued)*

Parts List - Brakes

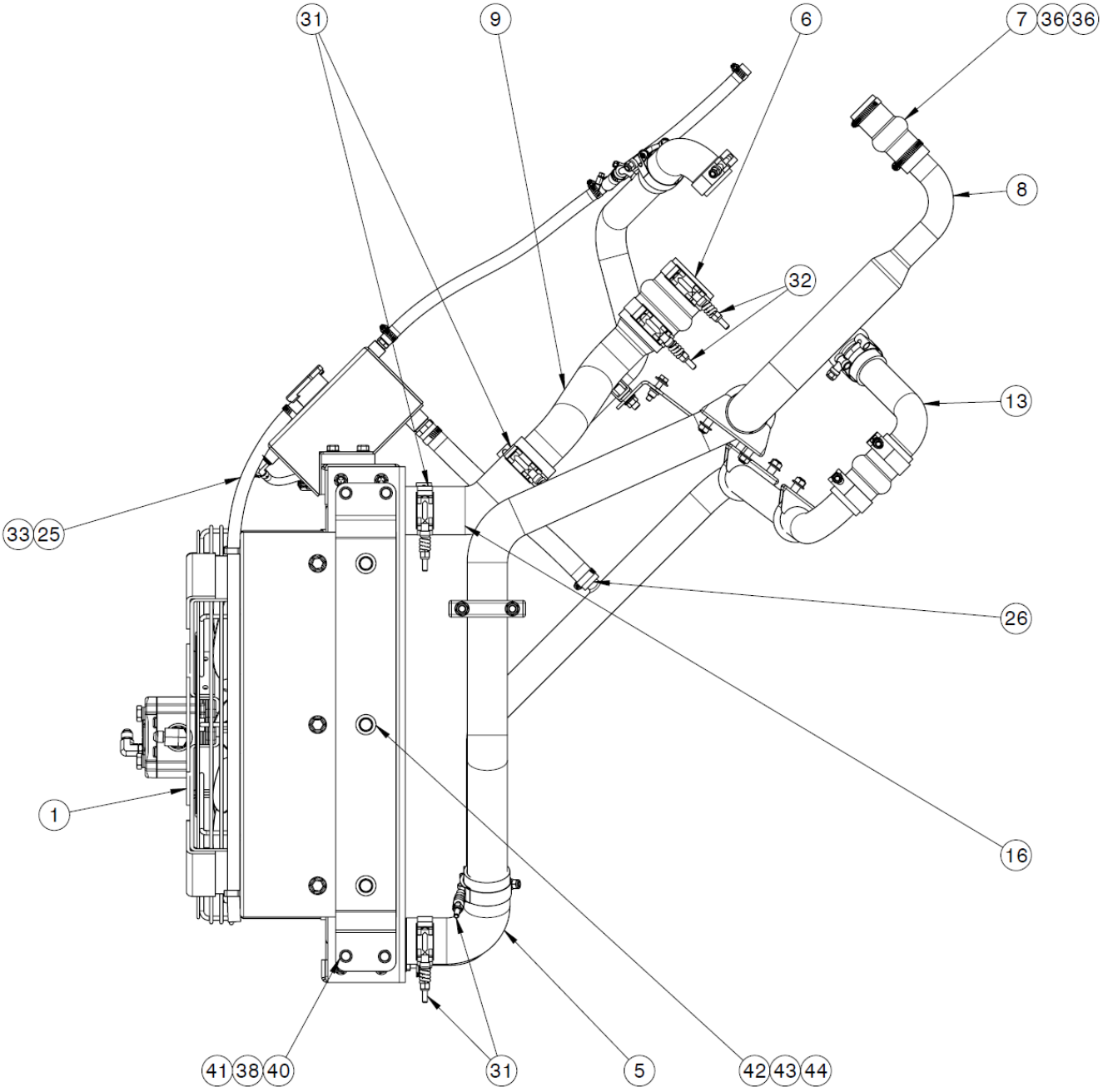
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	A-TT4-00176-1	TTR-8 FRONT RH JOUNCE HOSE	1
2	A-TT4-00176-1	TTR-8 FRONT LH JOUNCE HOSE	1
3	H-4280	FRONT RH BRAKE LINE	1
4	H-4281	FRONT LH BRAKE LINE	1
5	H-4282	REAR BRAKE LINE A	1
6	H-4283	REAR BRAKE LINE B	1
7	A-TT4-00163	BRAKE SWITCH TEE	1
8	H-4286	BRAKE PRESSURE SWITCH - DOT 3	1
9	A-TT4-00166	BRAKE HOSE REAR	1
10	A-TT4-00165	BRAKE HOSE CLIP	3
11	A-TT4-00178	BANJO BOLT WITH WASHER	2
12	G-1417-02	CLAMP, CABLE Ø.188	8
13	G-1720-103504	SCR,#10-32X1/2 MACH HEX WSH HD	5
14	G-1202-1035	STOPNUT, #10-32 ELASTIC	3
15	G-1152-103710	SCREW, #10-32 X 1.0" LG SOCKET FLAT HD CAP	3

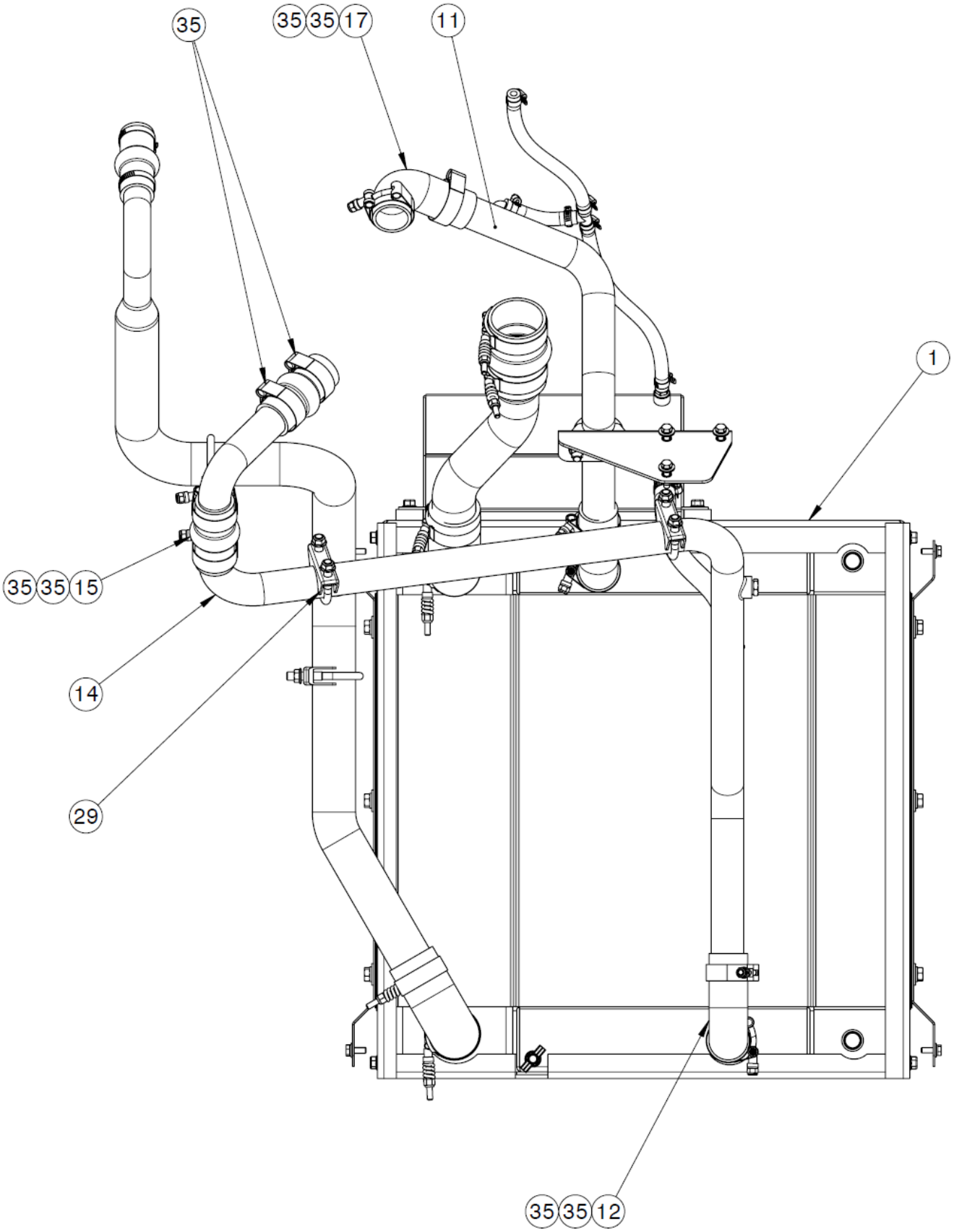
17.0 COOLING SYSTEM



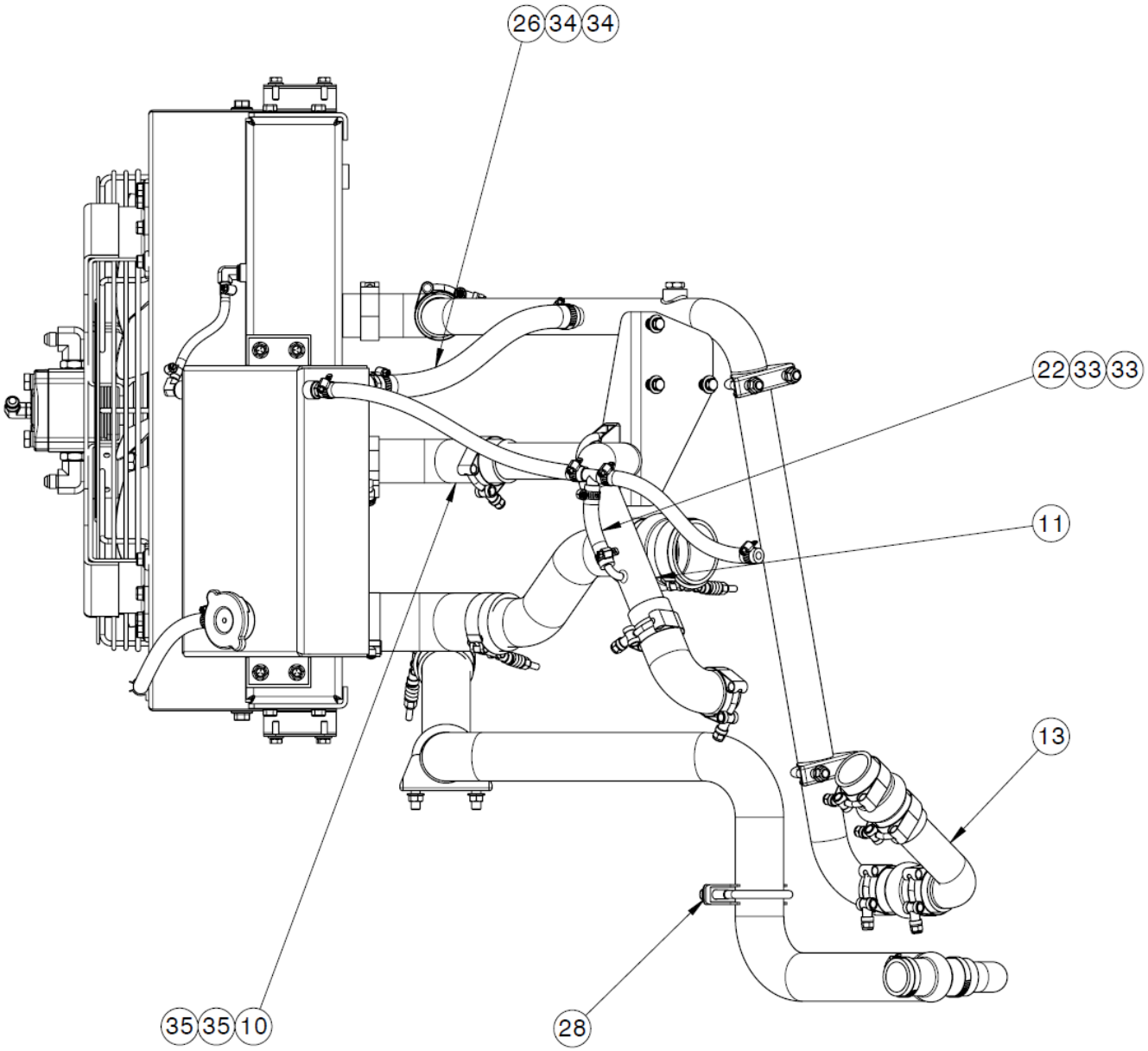
17.0 COOLING SYSTEM *(continued)*



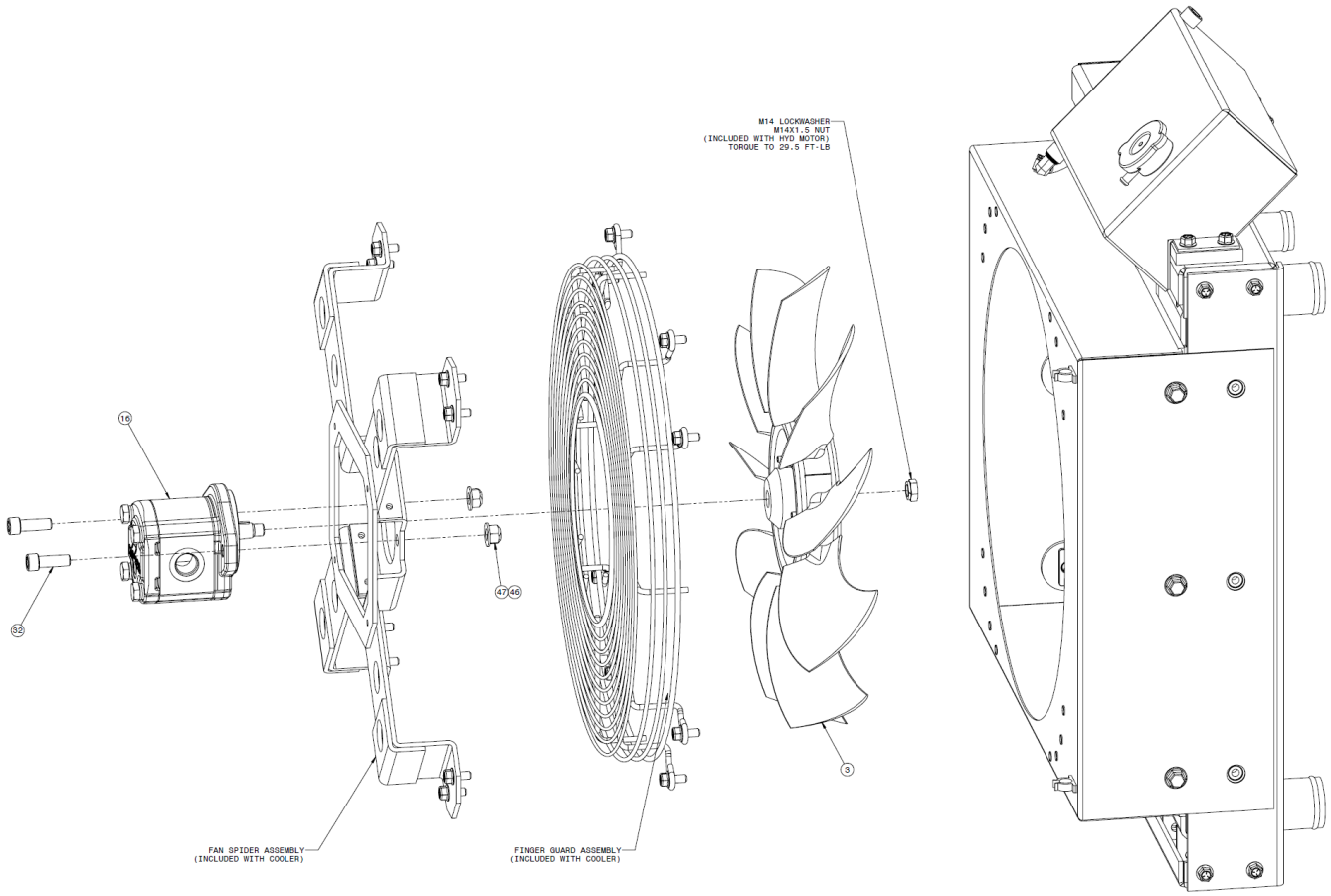
17.0 COOLING SYSTEM *(continued)*



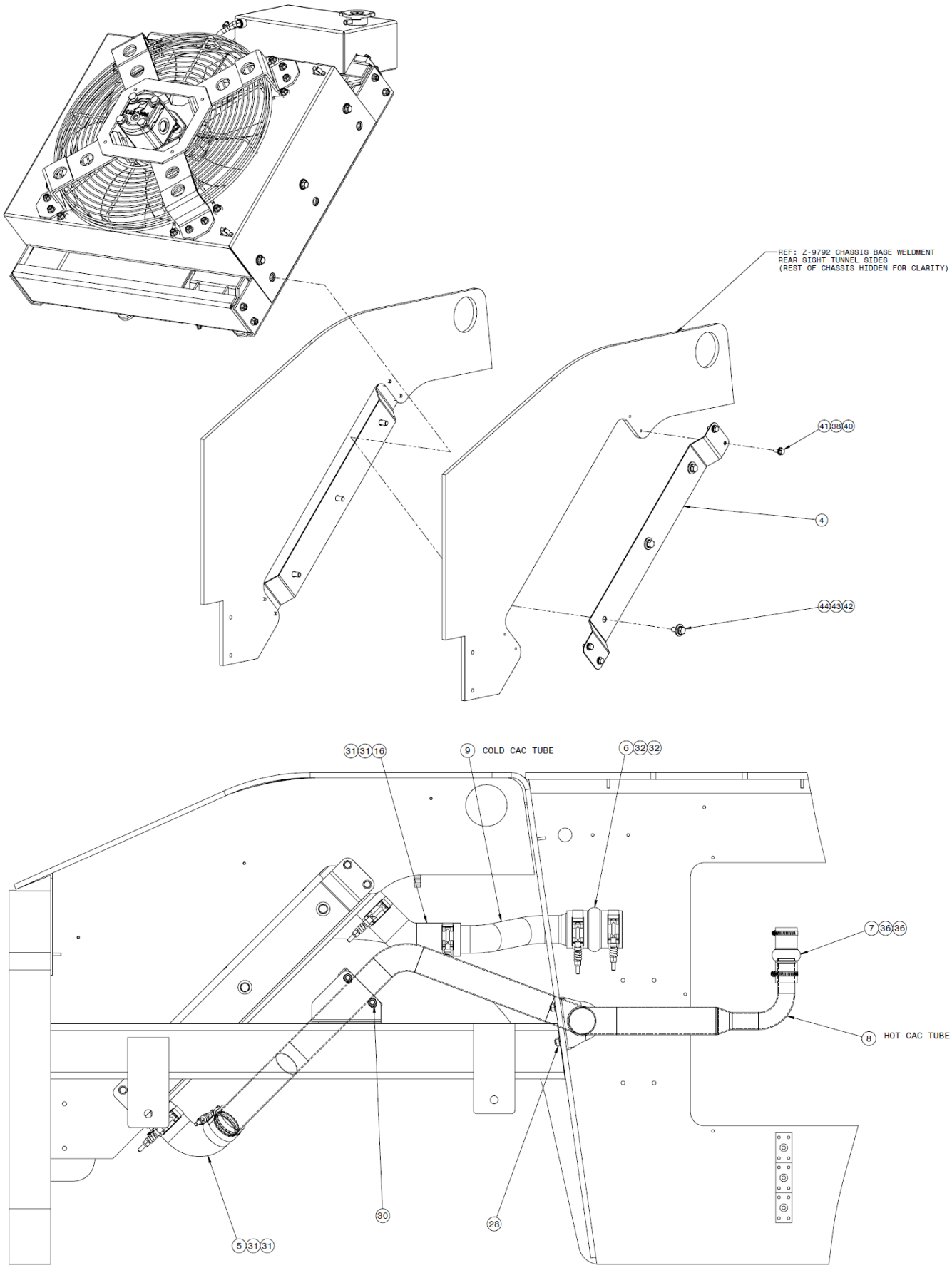
17.0 COOLING SYSTEM *(continued)*



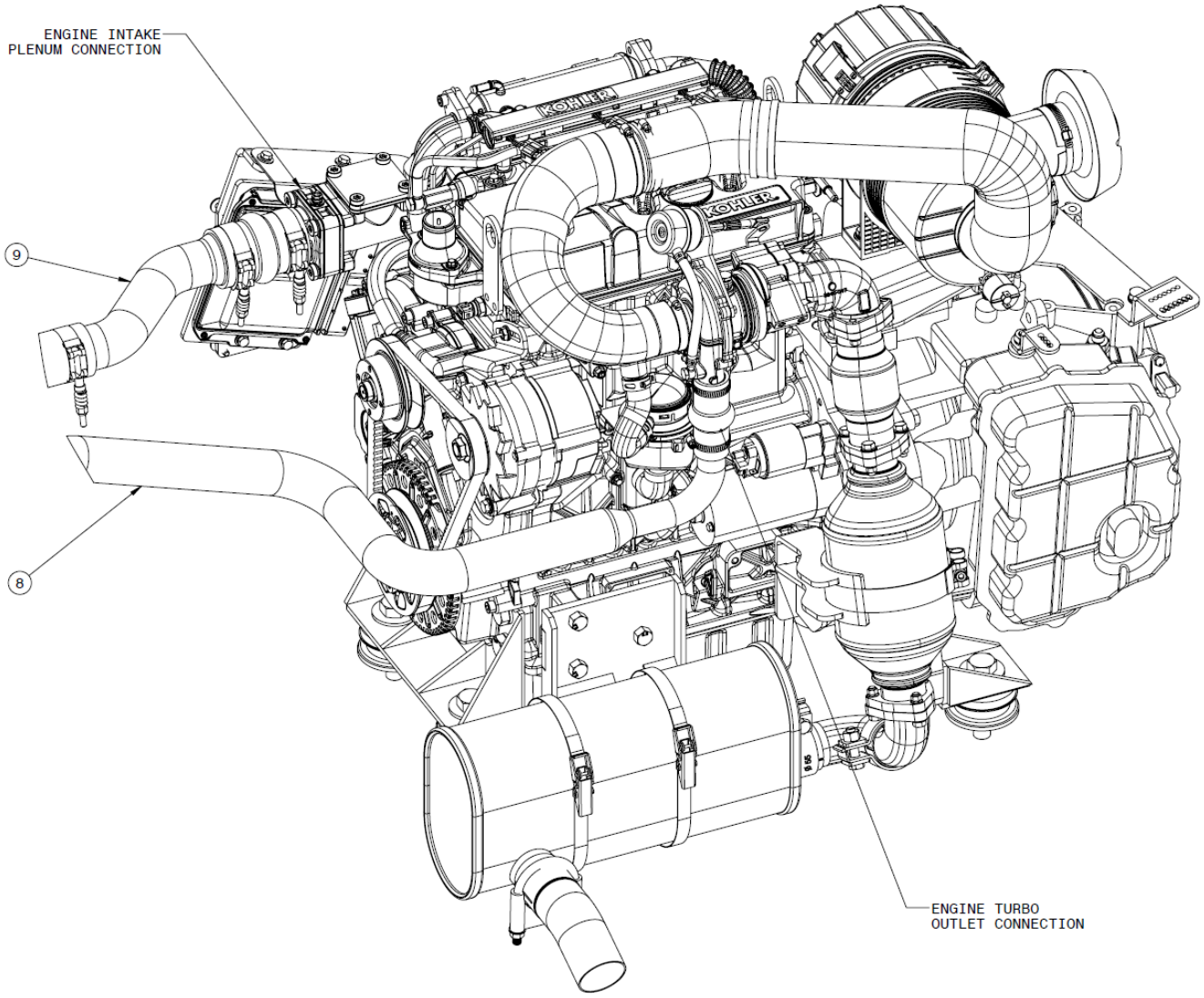
17.0 COOLING SYSTEM *(continued)*



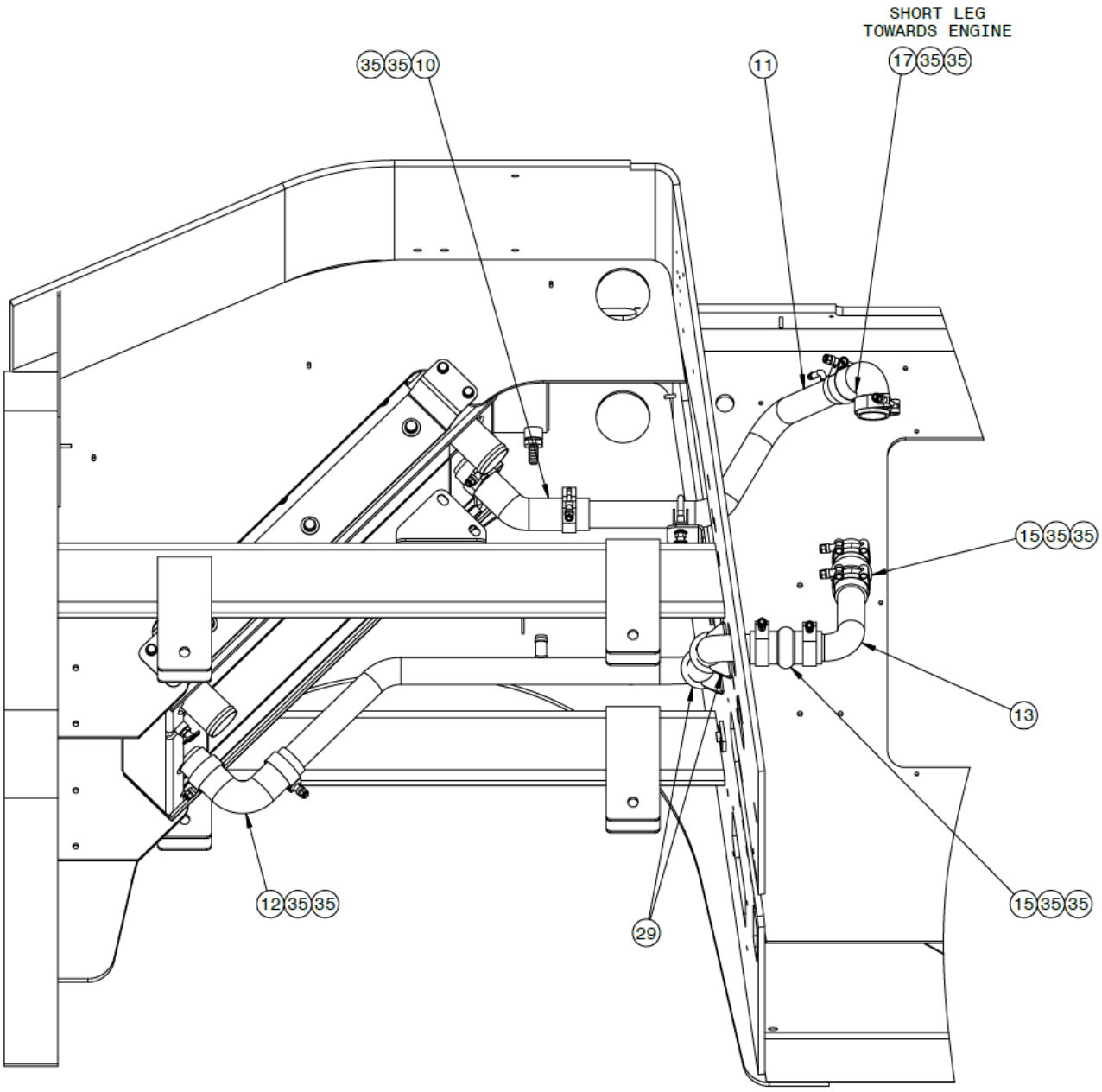
17.0 COOLING SYSTEM *(continued)*



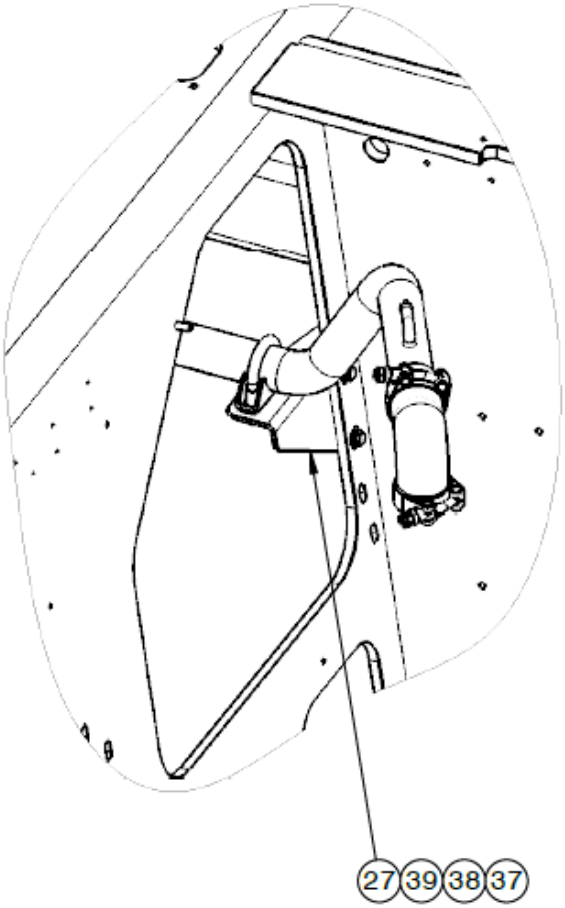
17.0 COOLING SYSTEM *(continued)*

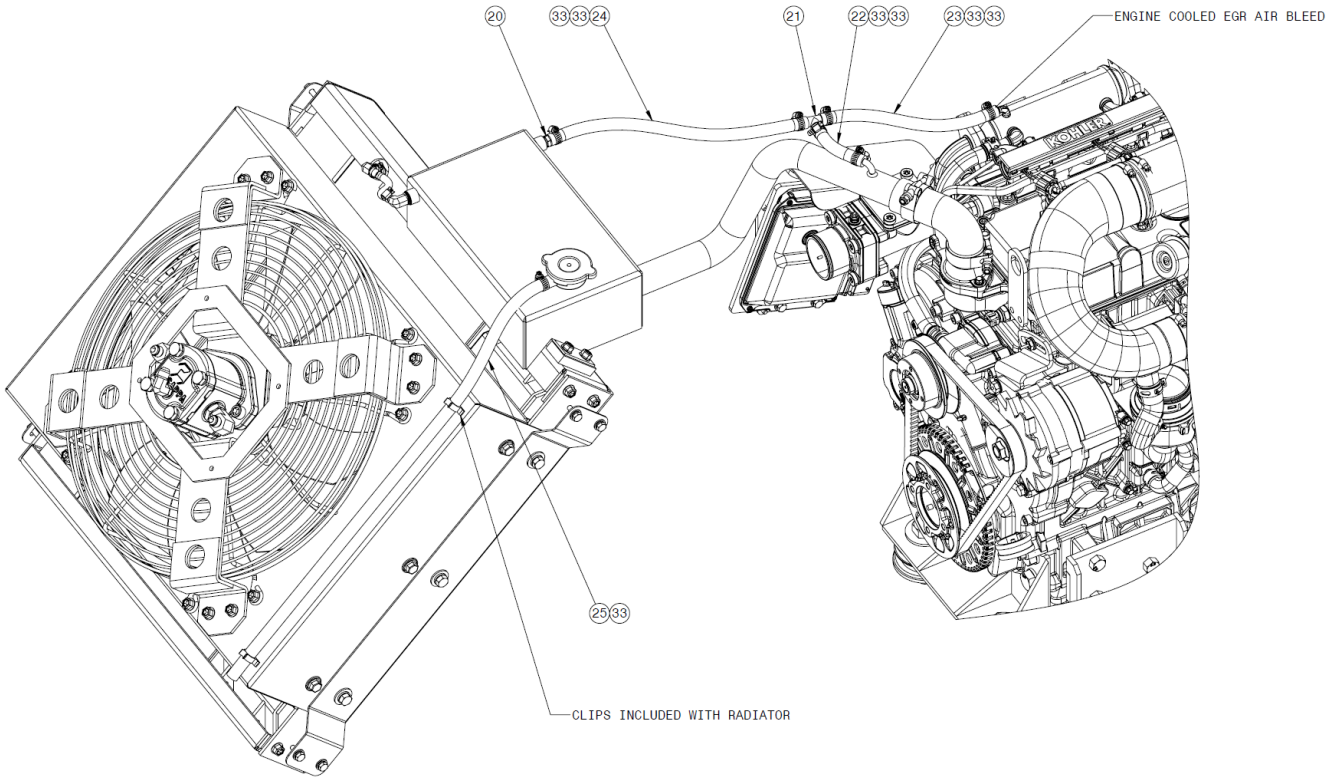


17.0 COOLING SYSTEM *(continued)*

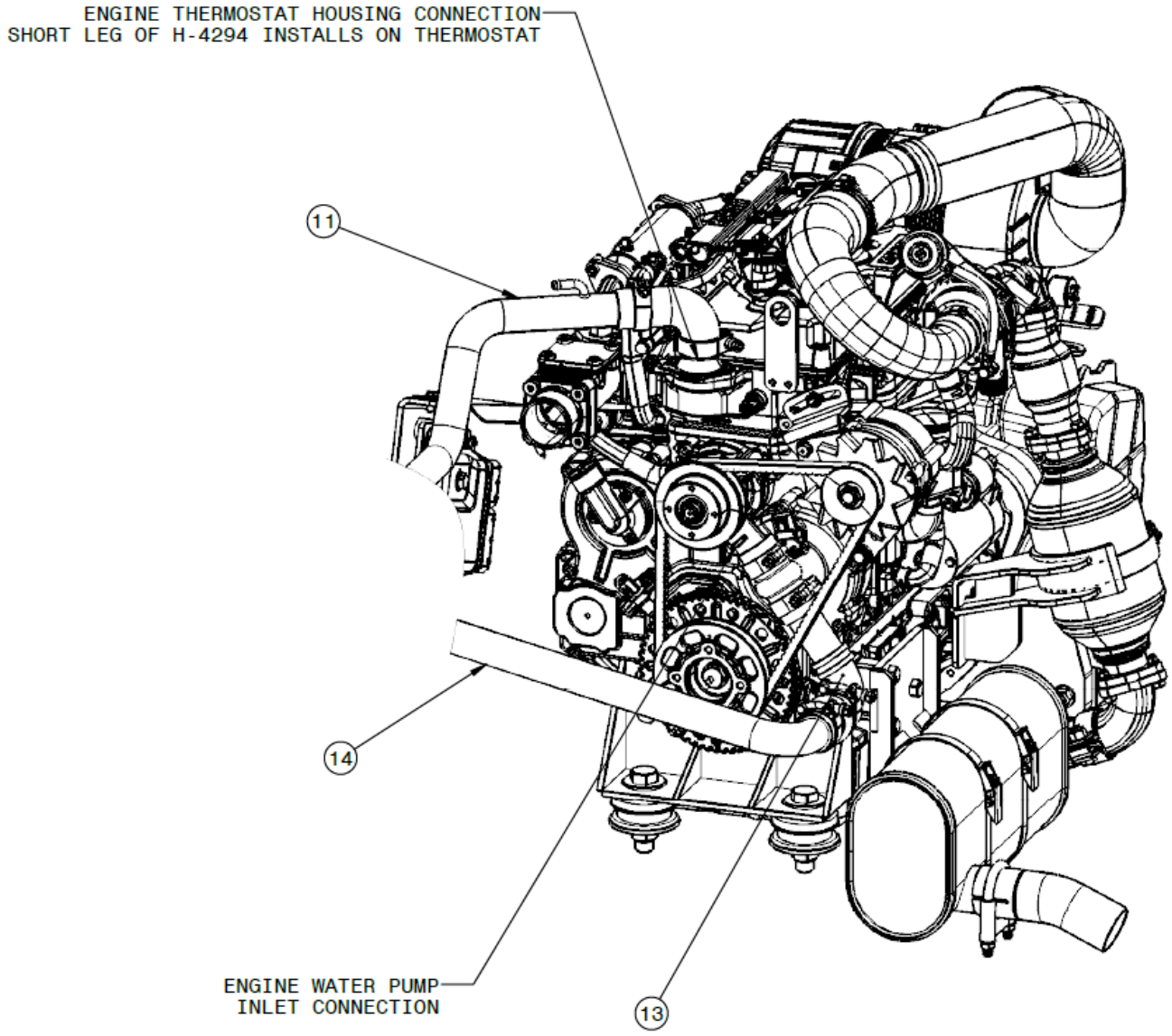


17.0 COOLING SYSTEM *(continued)*

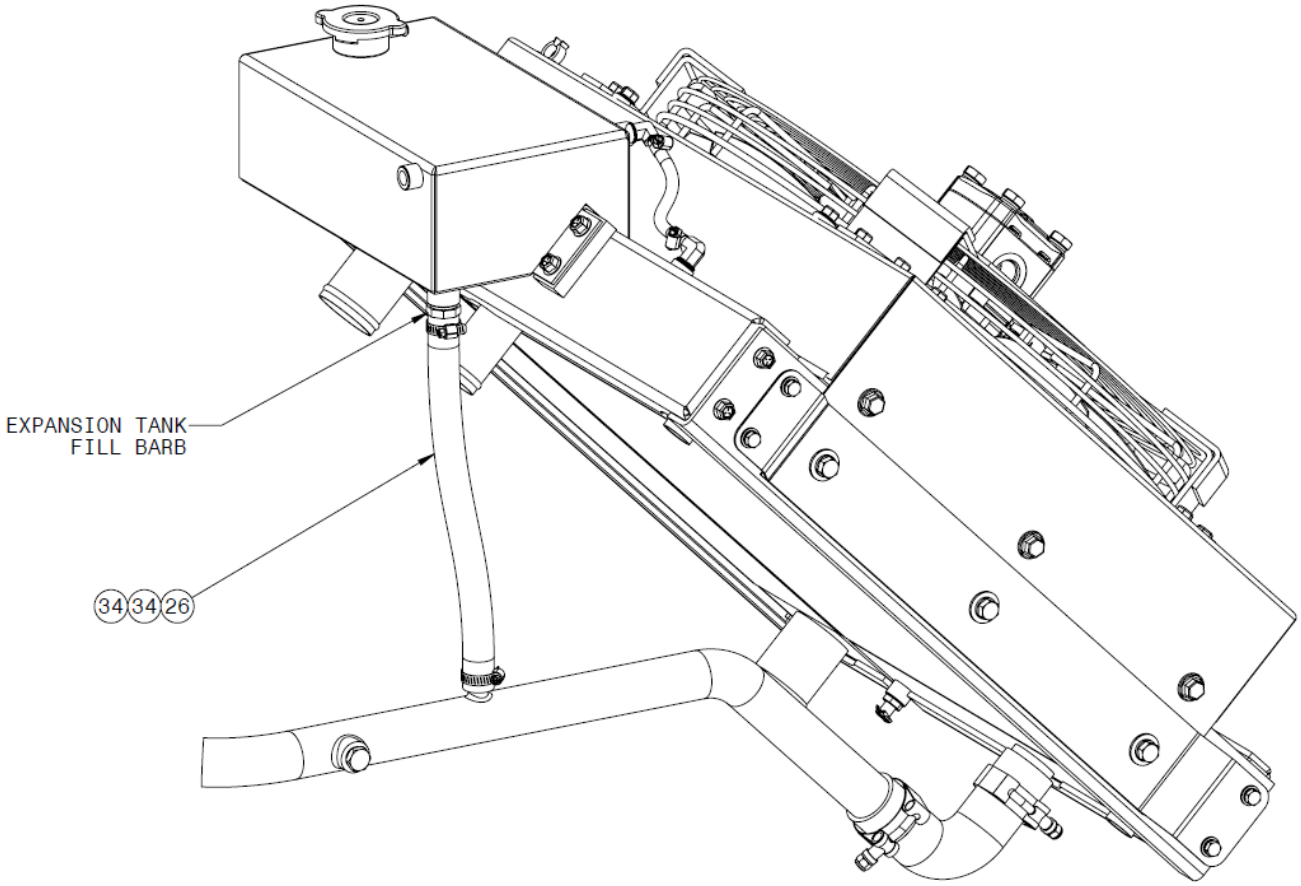




17.0 COOLING SYSTEM *(continued)*



17.0 COOLING SYSTEM *(continued)*



17.0 COOLING SYSTEM *(continued)*

Parts List – Cooling System

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	H-4237	COMBINATION COOLER	1
2	HC-2812	HYD FAN MOTOR	1
3	H-4289	COOLING FAN	1
4	S-3356-00	RAD MTG BRACKET (P)	2
5	H-4291	CAC ELBOW 90 DEG 2.00	1
6	H-4292	TURBO HUMP HOSE 2.375	1
7	H-4290	TURBO HUMP HOSE 1.25	1
8	TR-2520	CAC TUBE HOT	1
9	TR-2521	CAC TUBE COLD	1
10	H-4295	RAD ELBOW 45 DEG 1.50	1
11	TR-2522-00	RAD TUBE HOT (P)	1
12	H-4293	RAD ELBOW 90 DEG 1.50	1
13	TR-2524-00	RAD TUBE COLD B (P)	1
14	TR-2523-00	RAD TUBE COLD A (P)	1
15	H-4296	RAD HUMP HOSE 1.50	2
16	H-4297	CAC ELBOW 45 DEG 2.00	1
17	H-4294	RAD ELBOW 90 DEG 1.50 MOD	1
18	C5515X6X10	ELBOW 90, -06 M JIC X -10 M ORB	2
19	N-2001-35-S-B	ELBOW 90, -06 M JIC X -04 M ORB	1
20	05705B-104	BRASS BARB 1/4 M NPT X 5/16 BARB	1
21	N-3069	TEE, HOSE BARB 5/16 BRASS	1
22	TF-1106-06	COOLANT HOSE	3.5
23	TF-1106-06	COOLANT HOSE	9.5
24	TF-1106-06	COOLANT HOSE	14.25
25	TF-1106-06	COOLANT HOSE	27.5
26	TF-1106-12	COOLANT HOSE	12
27	Z-10761	ASY, TUBE CLAMP	1
28	A-TT4-00254	CLAMP, 2 IN HD .375 IN THD	1
29	A-TT4-00328	CLAMP, 1.5 IN HD .375 IN THD	2
30	A-TT4-00254	CLAMP, 2 IN HD .375 IN THD	1
31	NVSP-24-038-CB	T-BOLT CLAMP, 1.75 - 2.63	4
32	NVSP-24-038-CA	T-BOLT CLAMP, 2.25-3.13	2
33	H-1426-01	HOSE CLAMP - .38" - .87"	7
34	H-1426-04	HOSE CLAMP - 0.50" - 1.25"	2
35	H-5229-05	CLAMP, T-BOLT, 1 3/4" TO 2" ID	10
36	H-1426-07	HOSE CLAMP - 1.00" - 2.00"	2
37	G-1250-1050W	FLATWASHER, 1/4 WIDE	3
38	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	11
39	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	3
40	G-1250-1050N	FLATWASHER, 1/4 NARROW	8
41	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	8

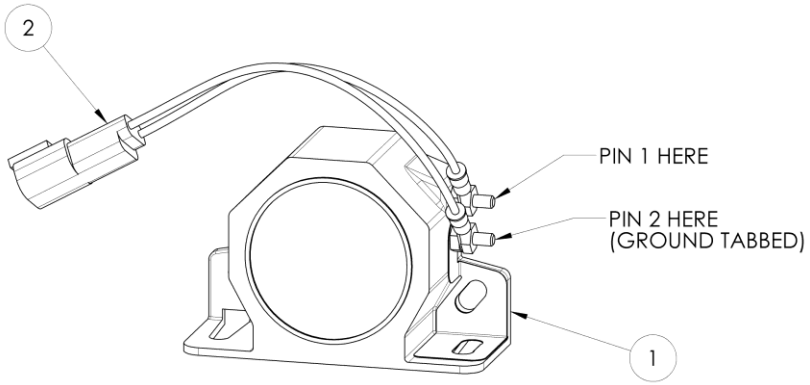
17.0 COOLING SYSTEM *(continued)*

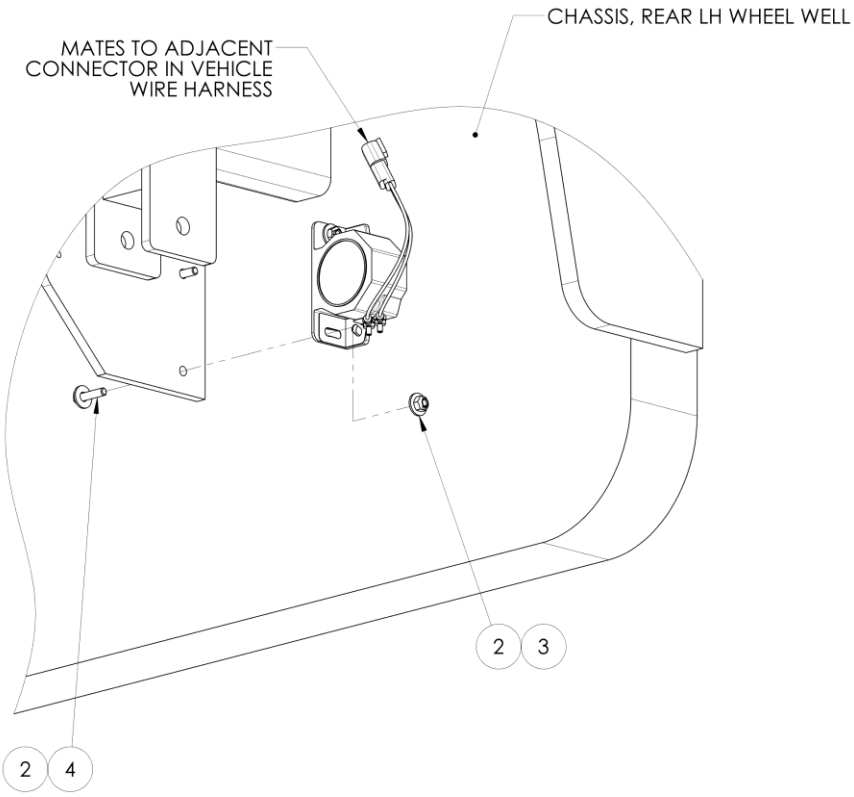
Parts List – Cooling System

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
42	G-1250-1070W	FLATWASHER, 3/8 WIDE	6
43	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	6
44	G-1100-107007	BOLT, 3/8-16 X 7/8" HEX HD GR 5	6
45	G-1151-108212	SCREW, 7/16-14 X 1-1/4" SOCKET HD CAP	2
46	G-1250-1080N	FLATWASHER, 7/16 NARROW	2
47	G-1727-1080	NUT, 7/16-14 TOP LOCK ZINC	2

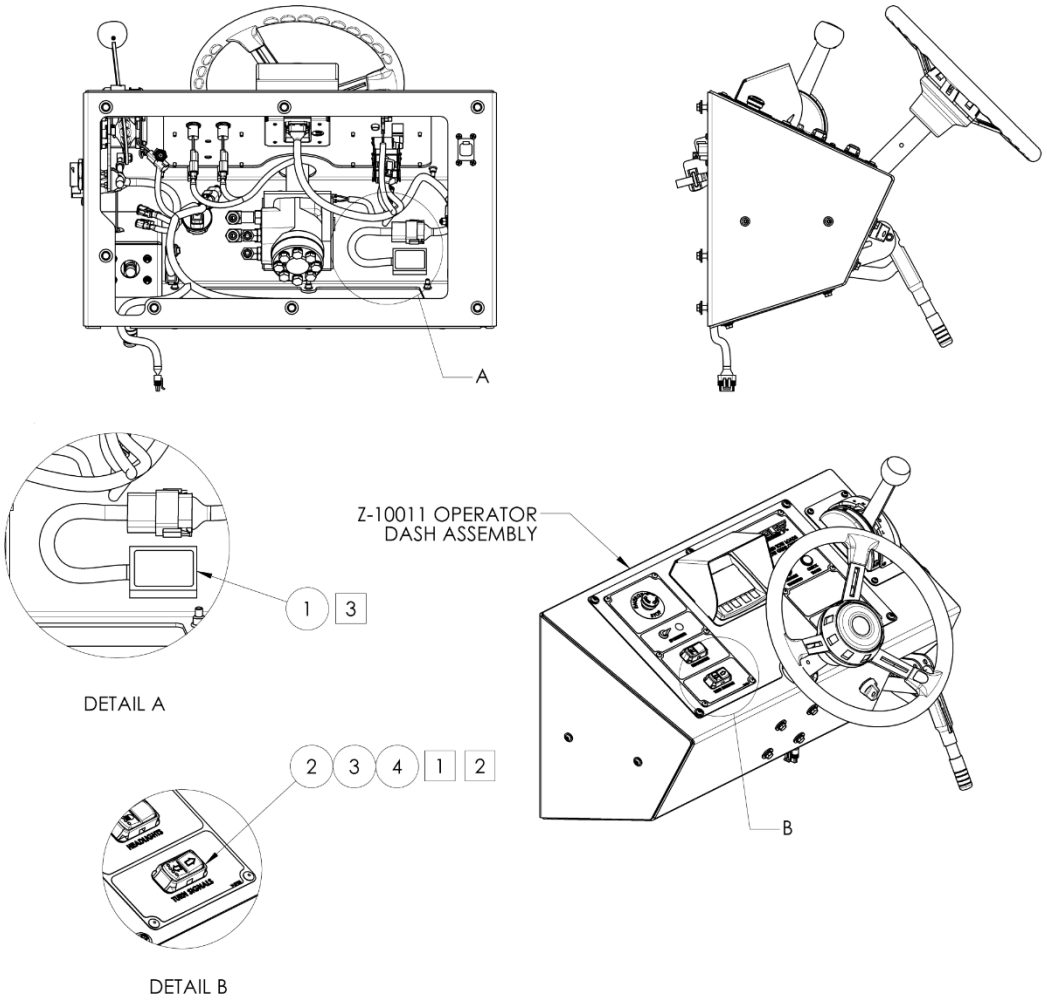
18.0 BACKUP ALARM





Item	Part Number	Description	Qty
1	AE-OPT-0001	BACKUP ALARM	1
2	Z-11174	BACKUP ALARM PIGTAIL	1
3	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	2
4	G-1250-1050W	FLATWASHER, 1/4 WIDE	4
5	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	2

19.0 TURN SIGNALS



SELF-CANCELLING TURN SIGNALS FUNCTIONALITY:

MODE 1 : PRESS TURN SIGNAL BUTTON FOR 1 SECOND, TURN SIGNAL LIGHT WILL FLASH FOR 7 SECONDS, THEN SELF CANCEL. THIS MODE IS USUALLY USED WHEN CHANGING LANES.

MODE 2 : PRESS TURN SIGNAL BUTTON FOR 2 SECONDS, TURN SIGNAL LIGHT WILL FLASH FOR 20 SECONDS, THEN SELF CANCEL. THIS MODE IS USUALLY USED WHEN SLOWING DOWN TO GO AROUND A CORNER.

MODE 3 : PRESS TURN SIGNAL BUTTON FOR 4 SECONDS, TURN SIGNAL LIGHT WILL FLASH FOR 75 SECONDS, THEN SELF CANCEL. THIS MODE IS USUALLY USED WHEN STOPPING AT A SIGNAL LIGHT AND TURN WILL BE MADE AFTER STOPPING.

NOTE: ALL THREE MODES ABOVE CAN BE CANCELLED BY PRESSING THE SAME TURN SIGNAL BUTTON A SECOND TIME.

[1] DISCARD STOCK PARTS NVSP-14-003-CA, NGR EMPTY SWITCH PLUG

[2] DISCARD MATING CONNECTOR DUST COVER

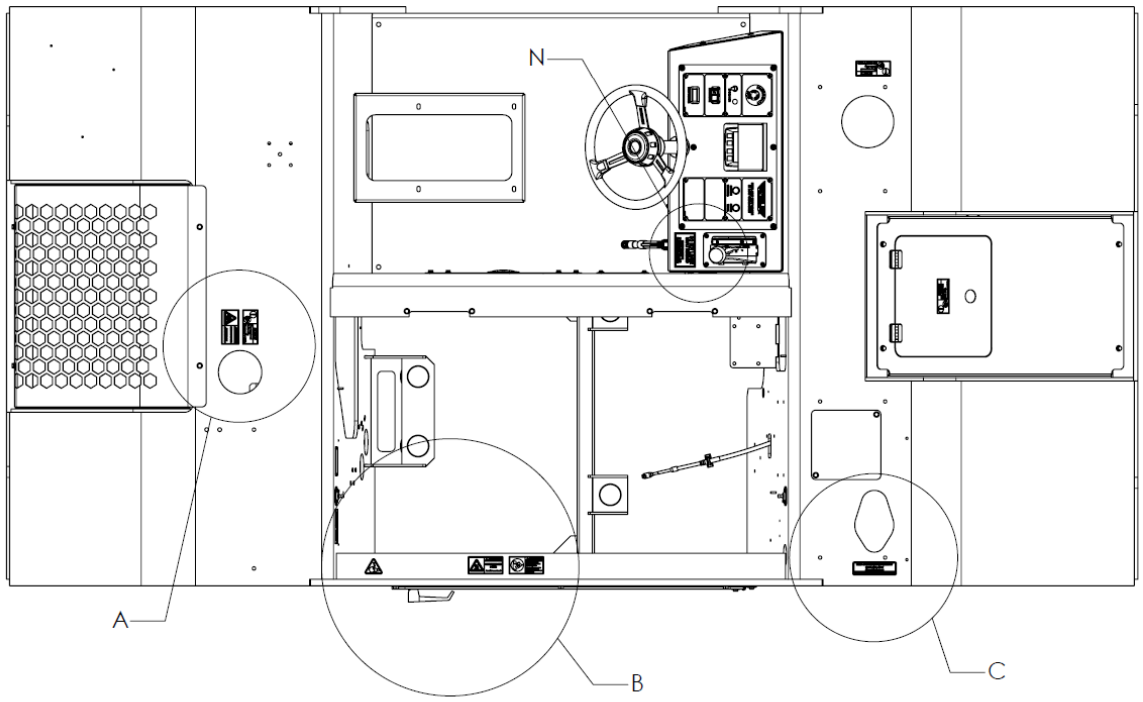
[3] DISCARD MATING CONNECTOR JUMPER PLUG

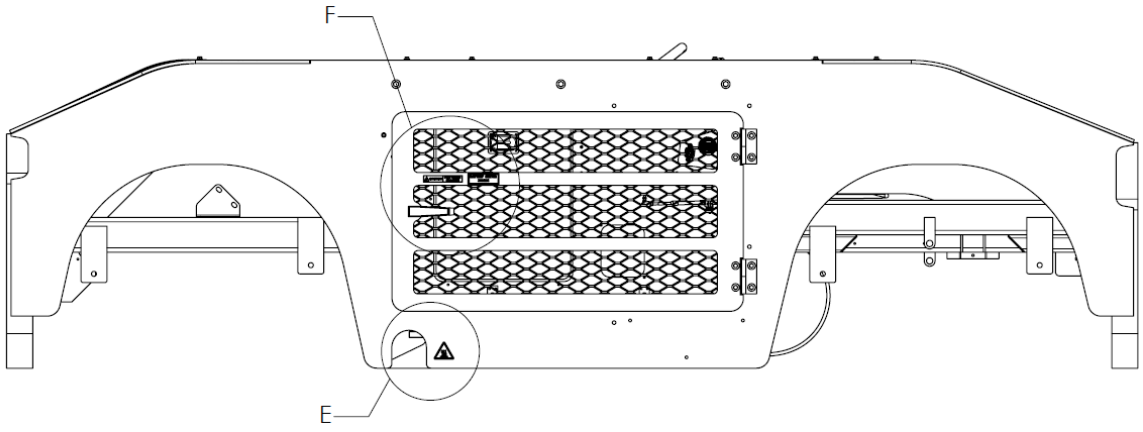
Parts List - Decals

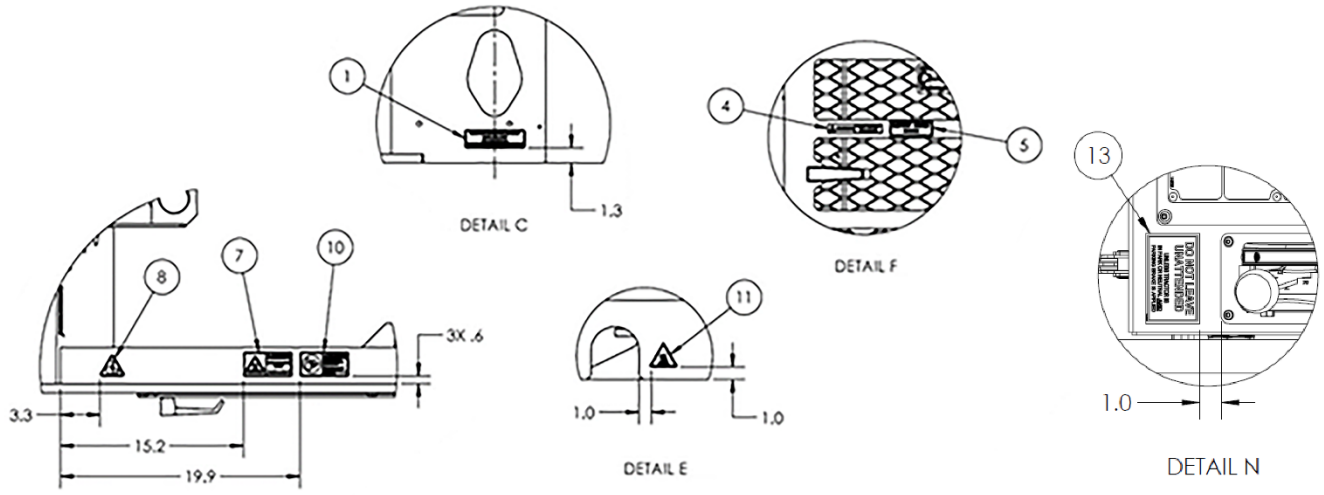
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10836	ASY, TURN SIG MODULE WITH CONN	1
2	NVSP-14-001-CE	(ON)-OFF-(ON) SWITCH BASE	1
3	NVSP-14-002-CA	FWD-REV / TS ROCKER	1
4	Z-10912	ASY, TURN SIGNAL SW WIRING	1

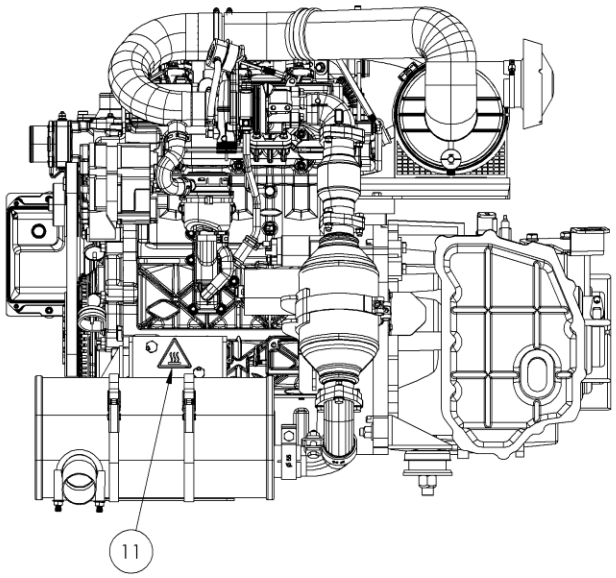
20.0 DECALS

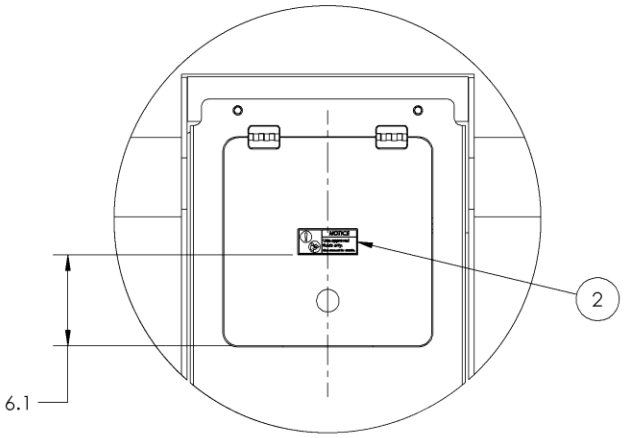

N
A
B
C


F
E

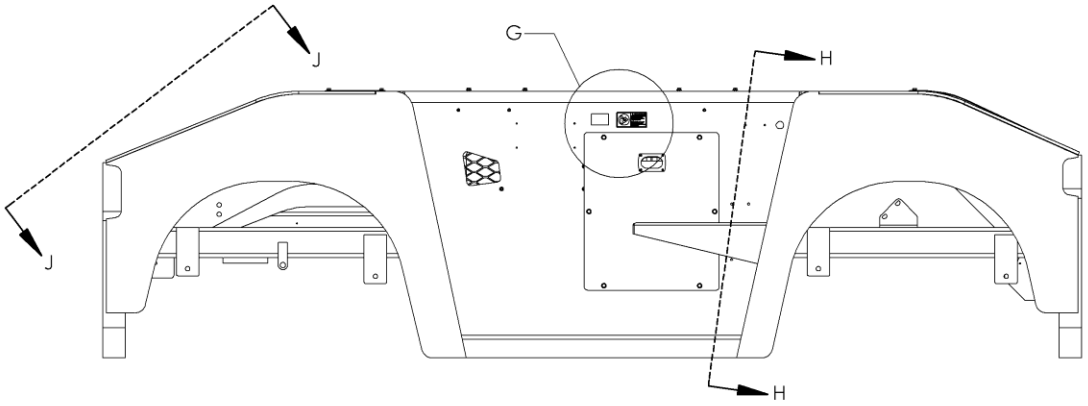

1
1.3
DETAIL C
4
5
DETAIL F
13
1.0
DETAIL N
8
7
10
3X .6
3.3
15.2
19.9
11
1.0
1.0
DETAIL E

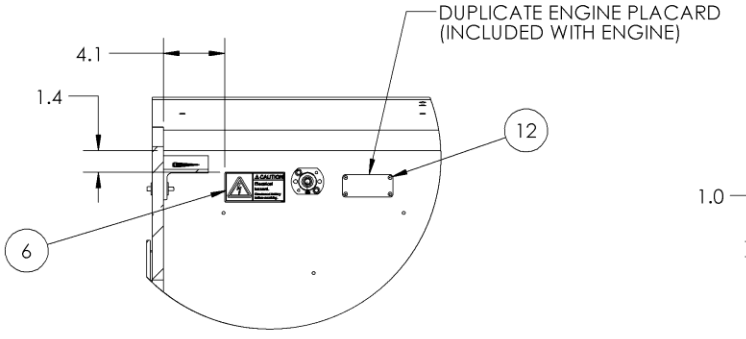
20.0 DECALS *(continued)*



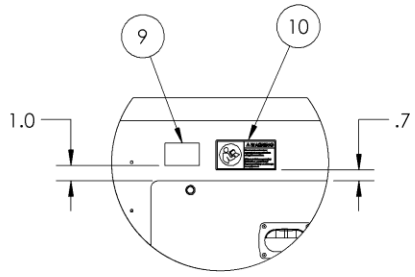


SECTION J-J
SCALE 1 : 8



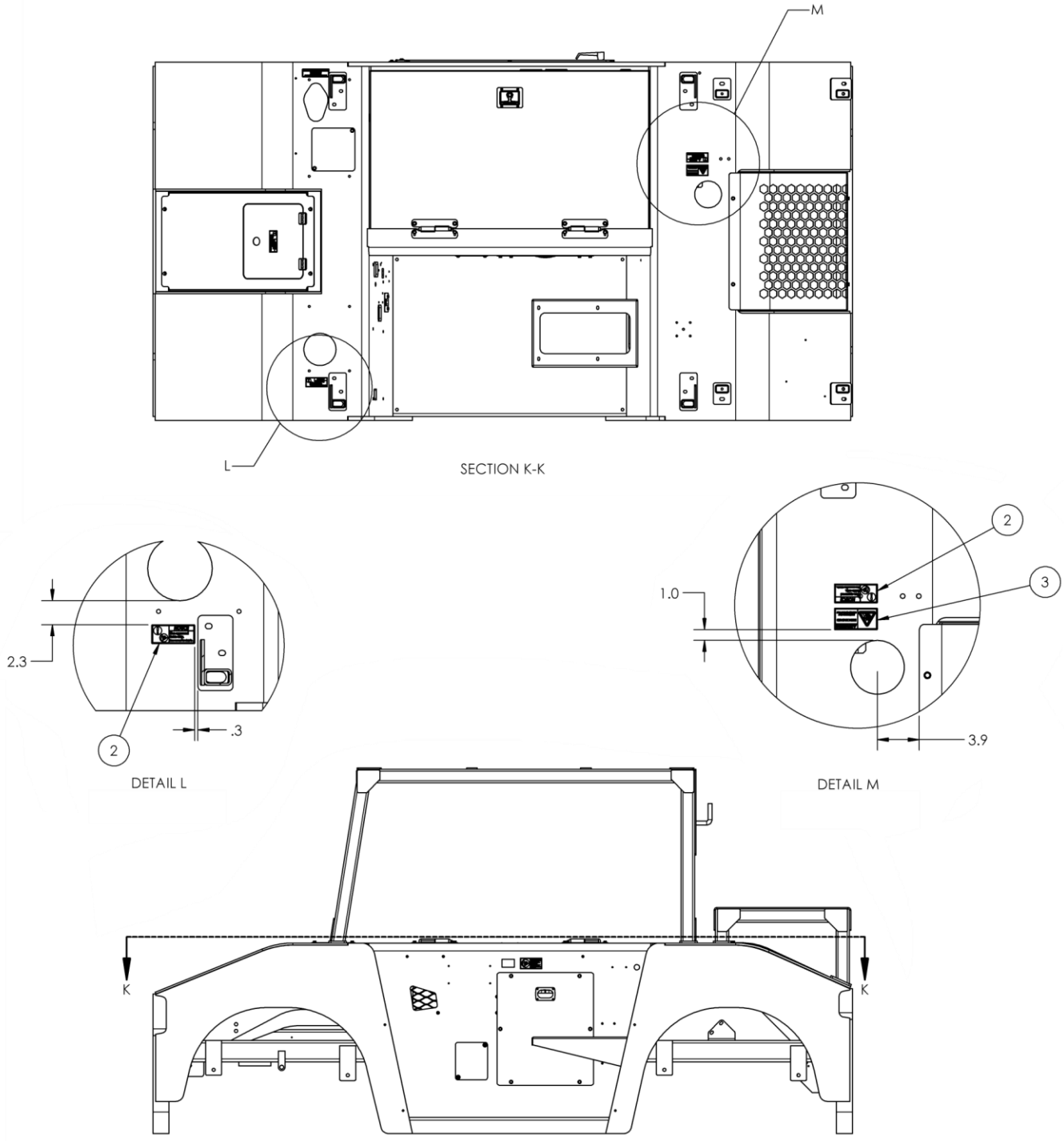


SECTION H-H
SCALE 1 : 8



DETAIL G
SCALE 1 : 8

20.0 DECALS *(continued)*



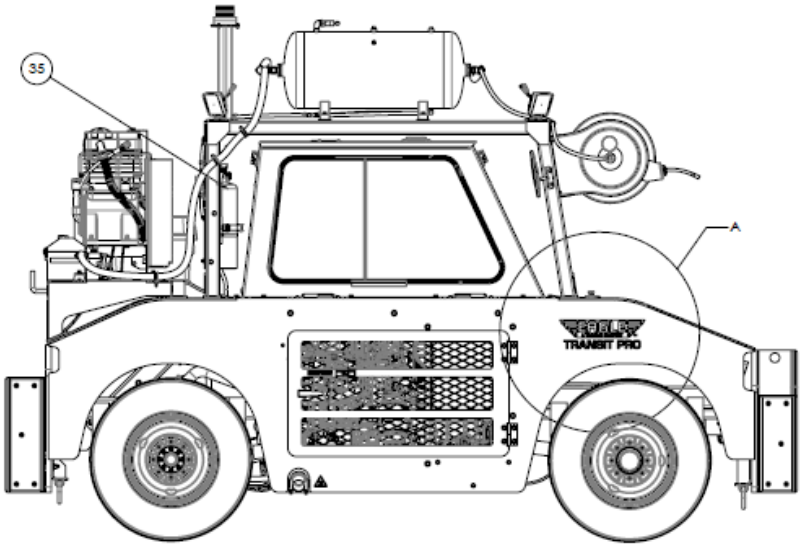
20.0 DECALS *(continued)*

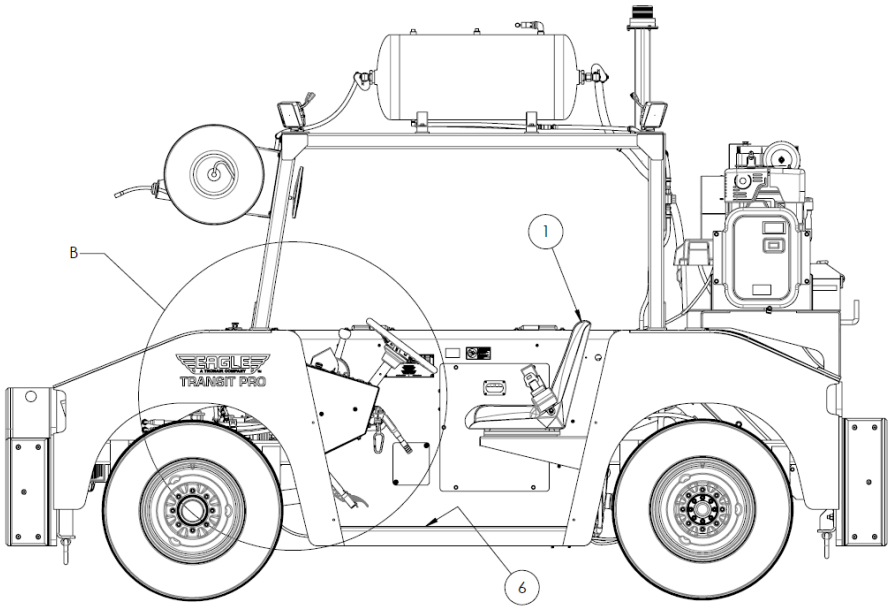
Parts List - Decals

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

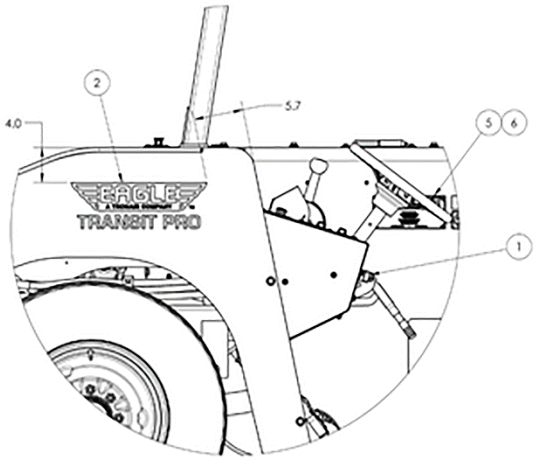
Item	Part Number	Description	Qty
1	V-2749	LABEL, ULTRA LOW SULFUR DIESEL	1
2	V-2745	LABEL, APPROVED FLUIDS NOTICE	3
3	V-2744	LABEL, HOT PRESSURE RELEASE	1
4	V-2743	LABEL, SECURE DOOR	1
5	V-2108	LABEL, BATTERY SWITCH	1
6	V-2746	LABEL, ELECTRICAL HAZARD	1
7	V-2747	LABEL, HOT SURFACES INSIDE	1
8	V-1984	LABEL, BELT HAZARD	1
9	V-1001	LABEL, MADE IN USA	1
10	V-2748	LABEL, READ MANUAL WARNING	2
11	V-1721	LABEL, ISO BURN HAZARD	2
12	G-1352-10	RIVET, 1/8 OPEN-END ALUM	4

21.0 MISCELLANEOUS COMPONENTS

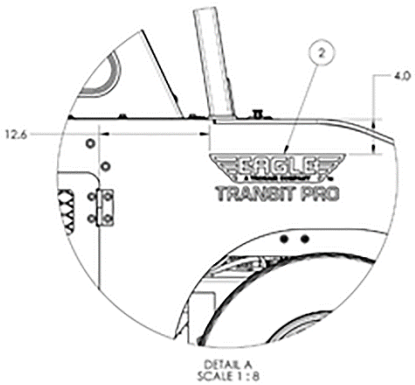




NOTE: CAB HIDDEN FOR CLARITY



DETAIL B
SCALE 1 : 8



DETAIL A
SCALE 1 : 8

21.0 MISCELLANEOUS COMPONENTS *(continued)*

Parts List – Miscellaneous Components

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	NVSP-05-005-CA	IGNITION SWITCH, 3-POS	
2	A-TT4-00496	TRANSIT PRO DECAL	2
3	A-TT4-0048-1	BUCKET SEAT W BELT & HARDWARE	1
4	H-5132	OPERATOR FLOOR MAT	1
5	NVSP-14-027-SAR	DATA PLATE - DIESEL GAS AND LP	1
6	G-1351-18-SS	RIVET, 3/16 OPEN-END SS	4

22.0 FEATURES AND OPTIONS

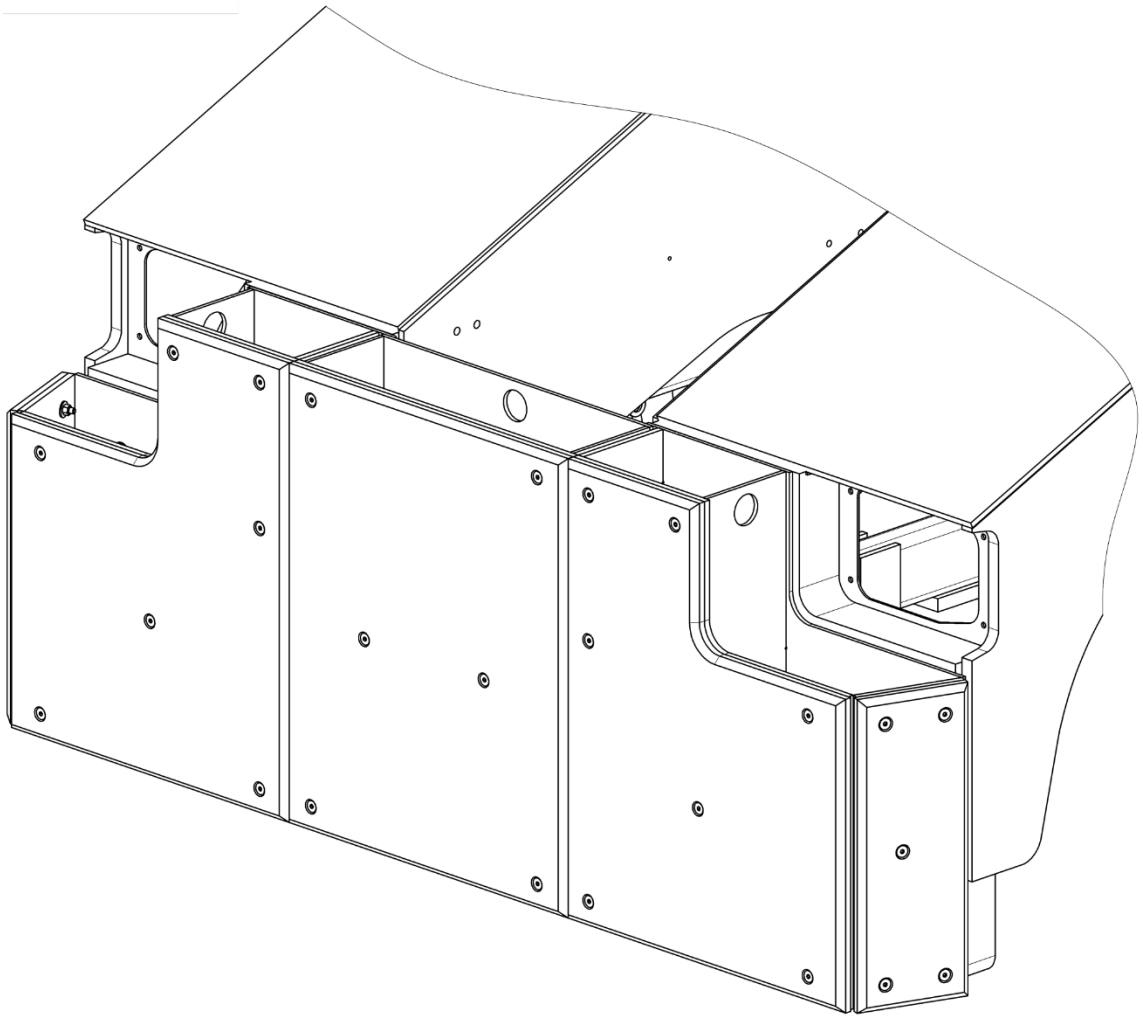
22.1 FRONT END OPTIONS FEATURE

22.1.1 FULL-WIDTH FRONT PUSH BUMPER

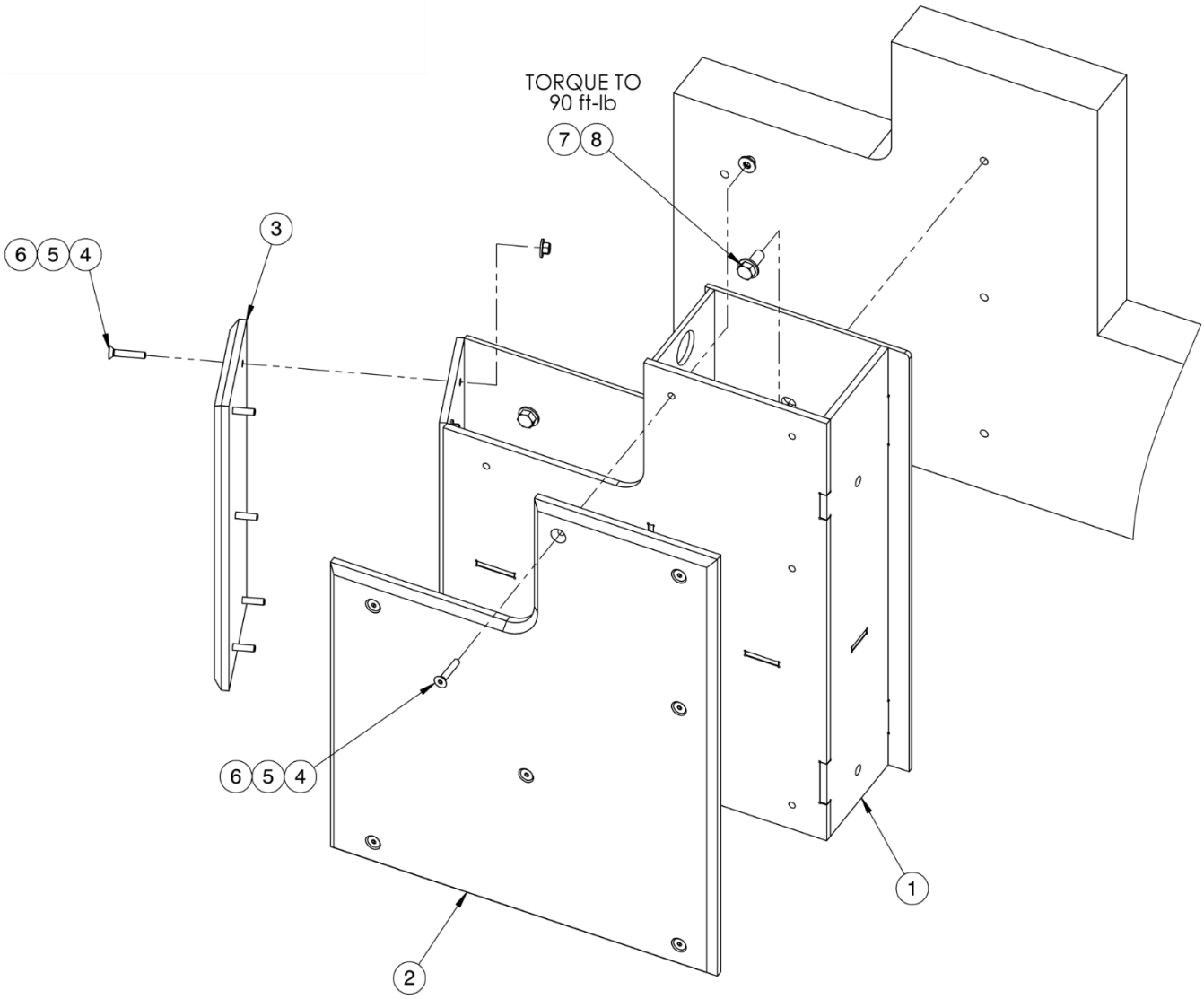
FEATURE NUMBER: TTR6TP-FPB
OPTION NUMBER: TTR6TP-FPB-O

DESCRIPTION: Full-width front push bumper with replaceable UHMW contact surfaces

COMPATIBILITY NOTES: This push bumper option prevents any front hitch or other front bumper installed components



22.1.1 FULL-WIDTH FRONT PUSH BUMPER *(continued)*

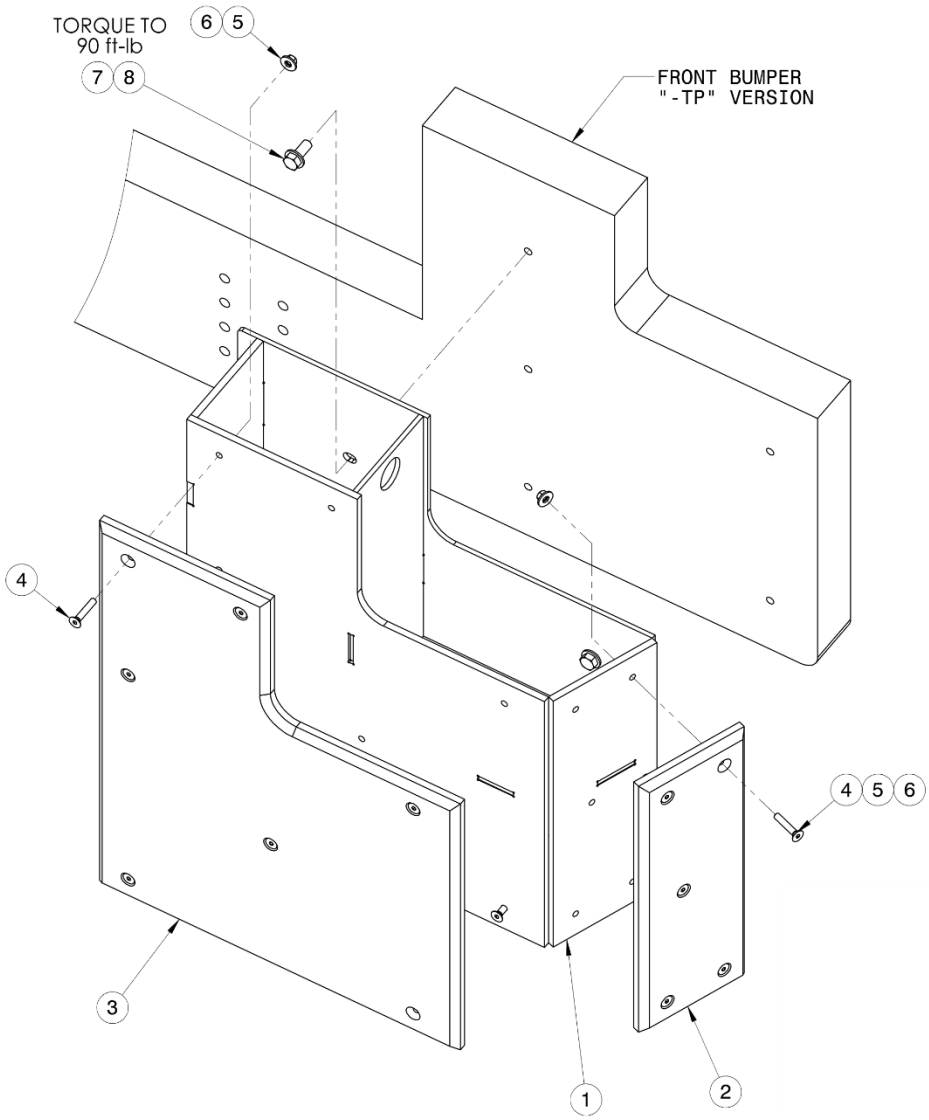


Parts List – Front RH Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10392-00	WLD, FR RH SPLIT BUMPER (P)	1
2	H-4401	FR RH UHMW BUMPER	1
3	H-4402	UHMW BUMPER, FRT SIDE	1
4	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	12
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	12
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	12
7	G-1250-1090N	FLATWASHER, 1/2 NARROW	5
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	5

22.1.1 FULL-WIDTH FRONT PUSH BUMPER *(continued)*

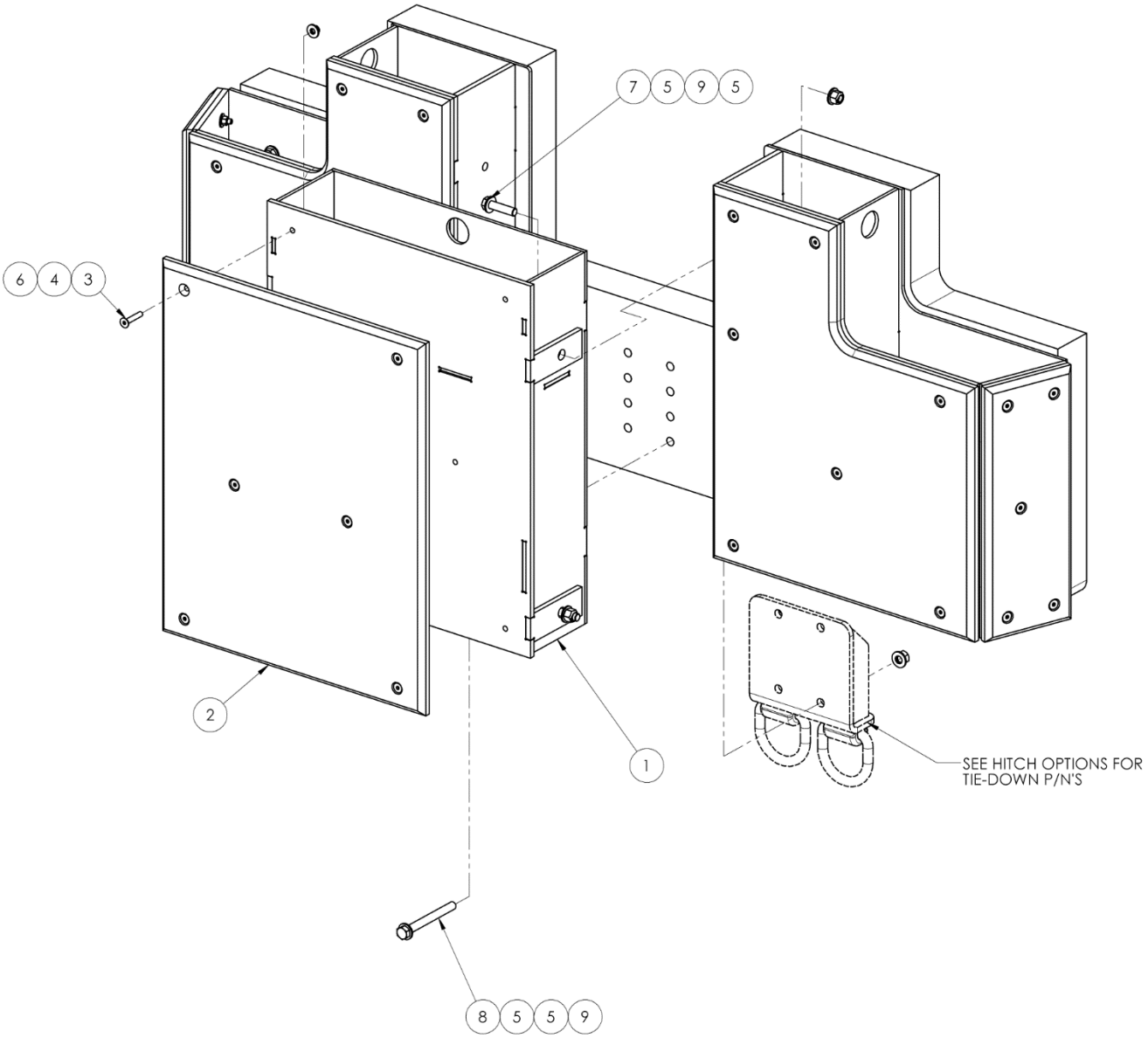


Parts List – Front LH Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10460-00	WLD, FR LH SPLIT BUMPER (P)	1
2	H-4402	UHMW BUMPER, FRT SIDE	1
3	H-4477	FR LH UHMW BUMPER	1
4	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	12
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	12
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	12
7	G-1250-1090N	FLATWASHER, 1/2 NARROW	5
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	5

22.1.1 FULL-WIDTH FRONT PUSH BUMPER *(continued)*



Parts List – Front Center Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

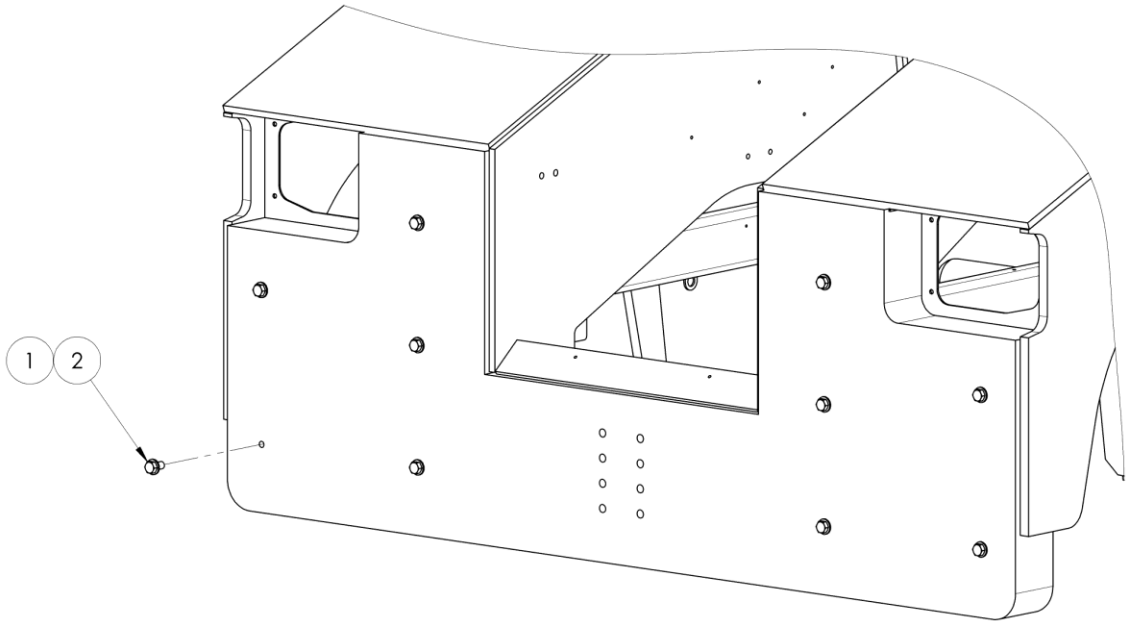
Item	Part Number	Description	Qty
1	Z-10823-00	WLD, CENTER FRT PUSHBUMPER (P)	1
2	H-4689	UHMW BUMPER, CENTER FRONT	1
3	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	6
4	G-1250-1060W	FLATWASHER, 5/16 WIDE	6
5	G-1250-1090N	FLATWASHER, 1/2 NARROW	16
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	6
7	G-1420-109020	BOLT, 1/2-13 X 2.00" HEX HD GR 8	4
8	G-1420-109050	BOLT, 1/2-13 X 5.0" HEX HD GR 8	4
9	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	8

22.1.2 NO FRONT PUSH BUMPER

FEATURE NUMBER: TTR6TP-FPB
OPTION NUMBER: TTR6TP-FPB-1

DESCRIPTION: No front push bumper

COMPATIBILITY NOTES: No compatibility concerns



Parts List – No Front Push Bumpers

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

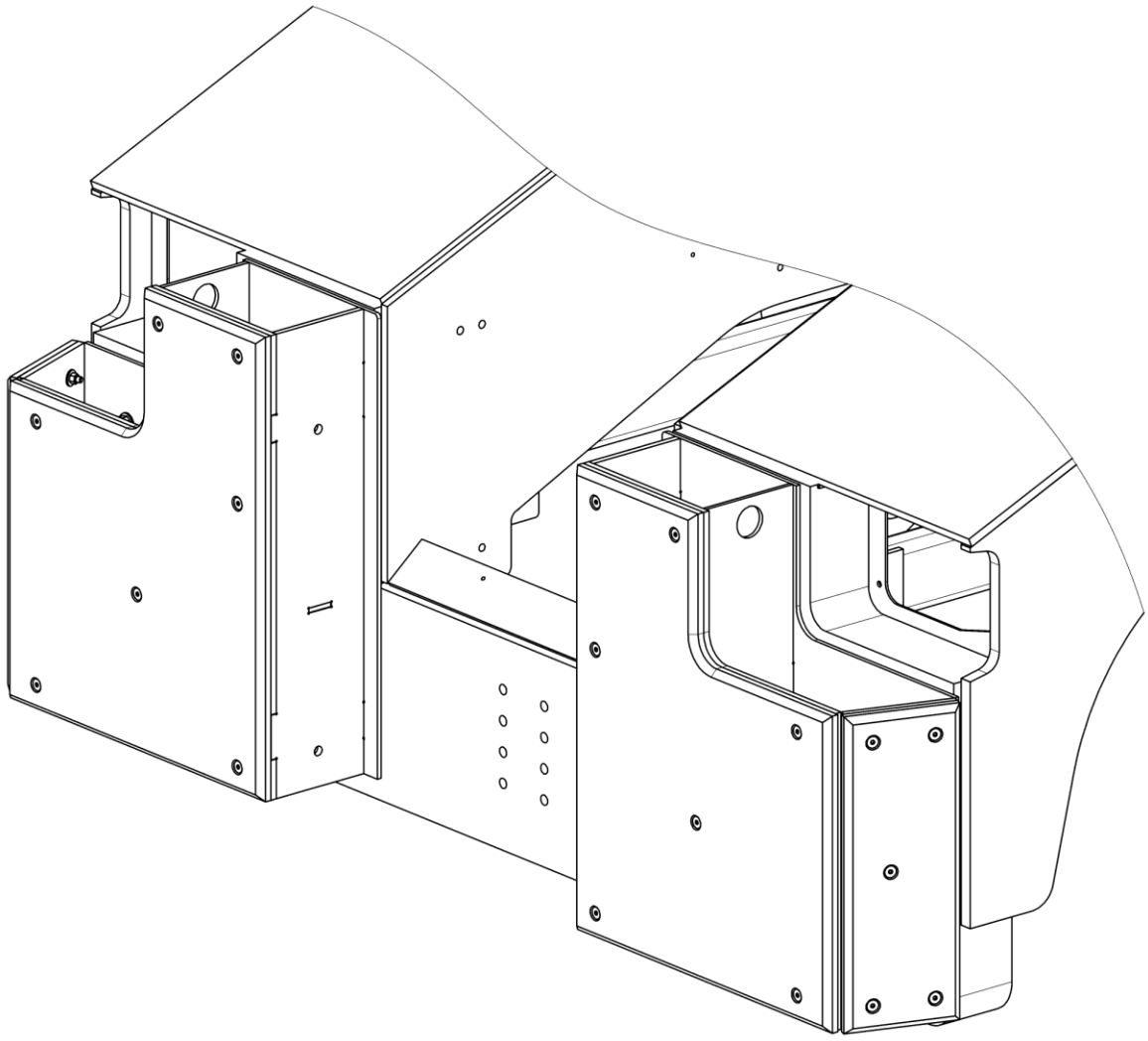
Item	Part Number	Description	Qty
1	G-1250-1090N	FLATWASHER, 1/2 NARROW	10
2	G-1420-109010	BOLT, 1/2-13 X 1.0" HEX HD GR 8	10

22.1.3 SPLIT FRONT PUSH BUMPER

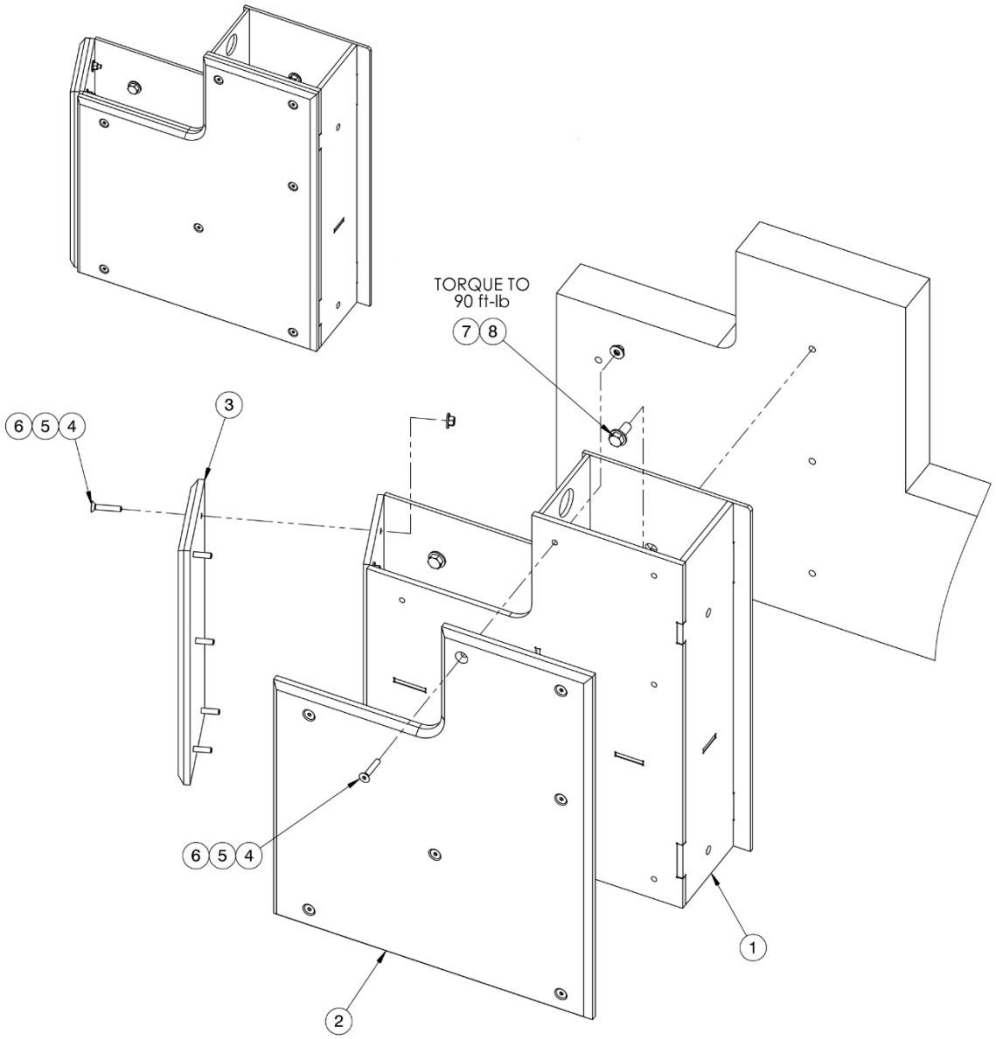
FEATURE NUMBER: TTR6TP-FPB
OPTION NUMBER: TTR6TP-FPB-2

DESCRIPTION: split front push bumper with replaceable UHMW contact surfaces. Bumper is split to allow installation of a front hitch between the two push bumpers

COMPATIBILITY NOTES: this push bumper may interfere with some front bumper installed components, specifically a front plow



22.1.3 SPLIT FRONT PUSH BUMPER *(continued)*

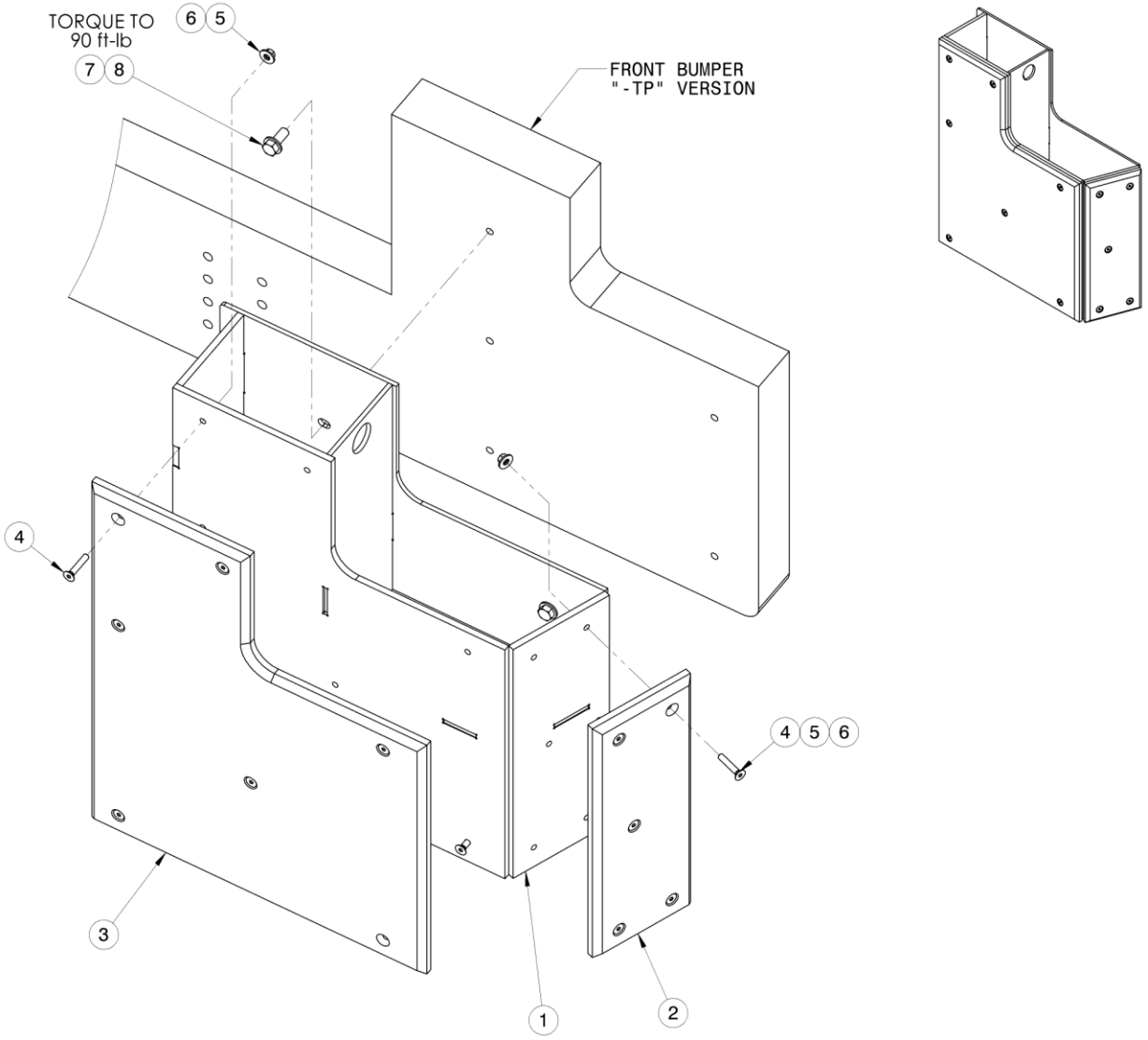


Parts List – Front RH Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10392-00	WLD, FR RH SPLIT BUMPER (P)	1
2	H-4401	FR RH UHMW BUMPER	1
3	H-4402	UHMW BUMPER, FRT SIDE	1
4	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	12
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	12
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	12
7	G-1250-1090N	FLATWASHER, 1/2 NARROW	5
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	5

22.1.3 SPLIT FRONT PUSH BUMPER *(continued)*



Parts List – Front LH Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

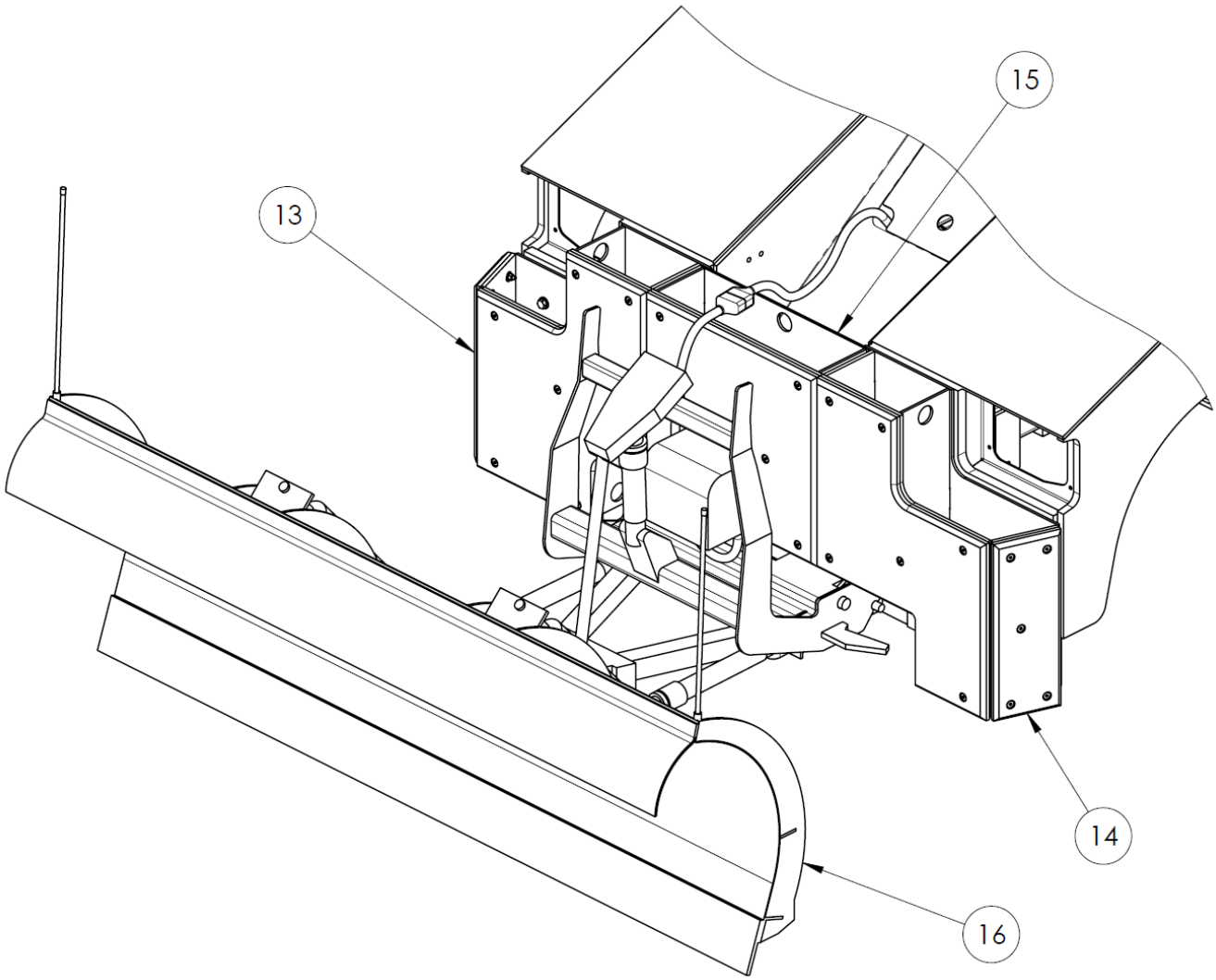
Item	Part Number	Description	Qty
1	Z-10460-00	WLD, FR LH SPLIT BUMPER (P)	1
2	H-4477	FR LH UHMW BUMPER	1
3	H-4402	UHMW BUMPER, FRT SIDE	1
4	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	12
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	12
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	12
7	G-1250-1090N	FLATWASHER, 1/2 NARROW	5
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	5

22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW

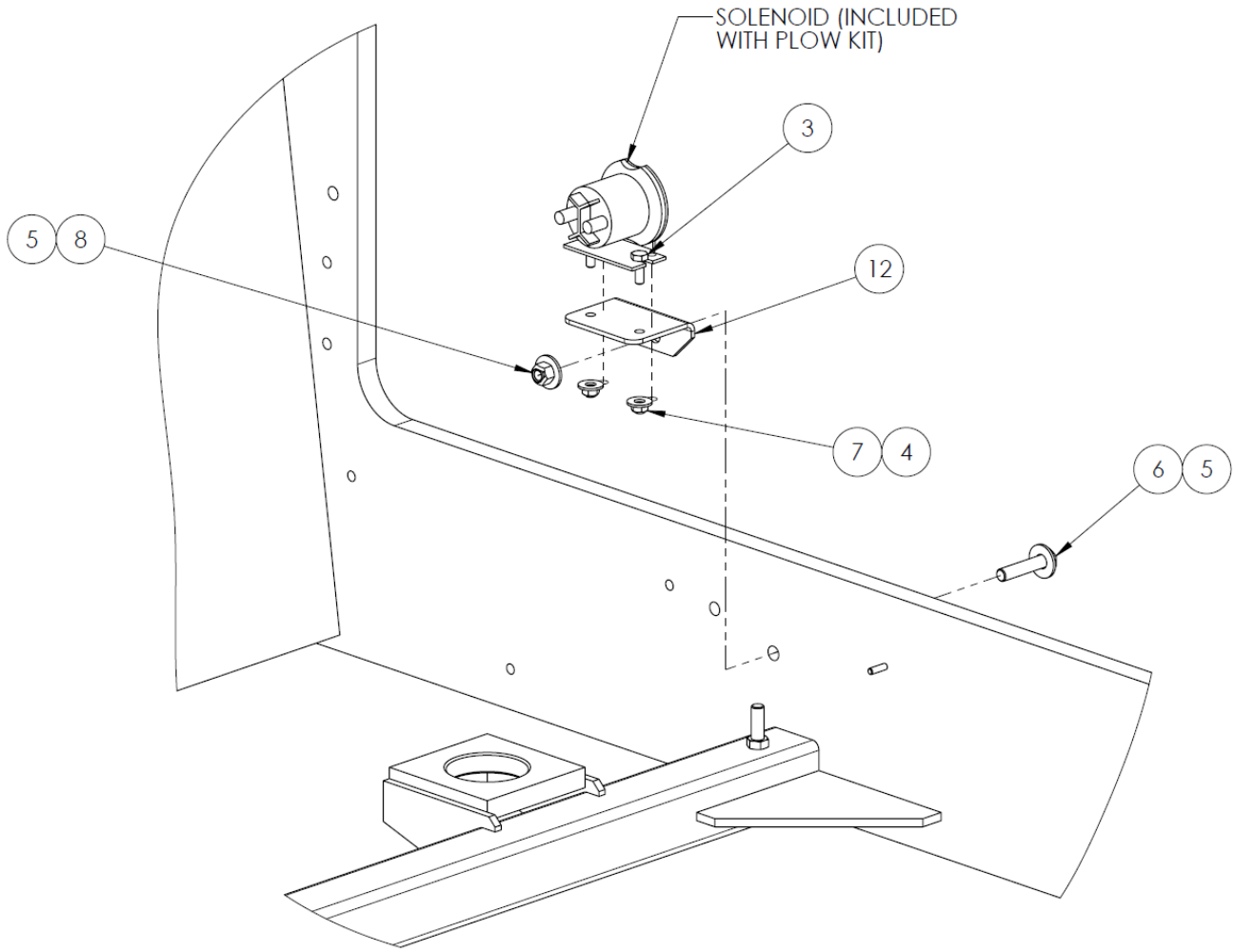
FEATURE NUMBER: TTR6TP-FPB
OPTION NUMBER: TTR6TP-FPB-3

DESCRIPTION: Front push bumper with quick attach snow Plow. Full front push bumper has replaceable UHMW contact surfaces. Bumper fits around plow mounts. Plow is 6.5 ft wide.

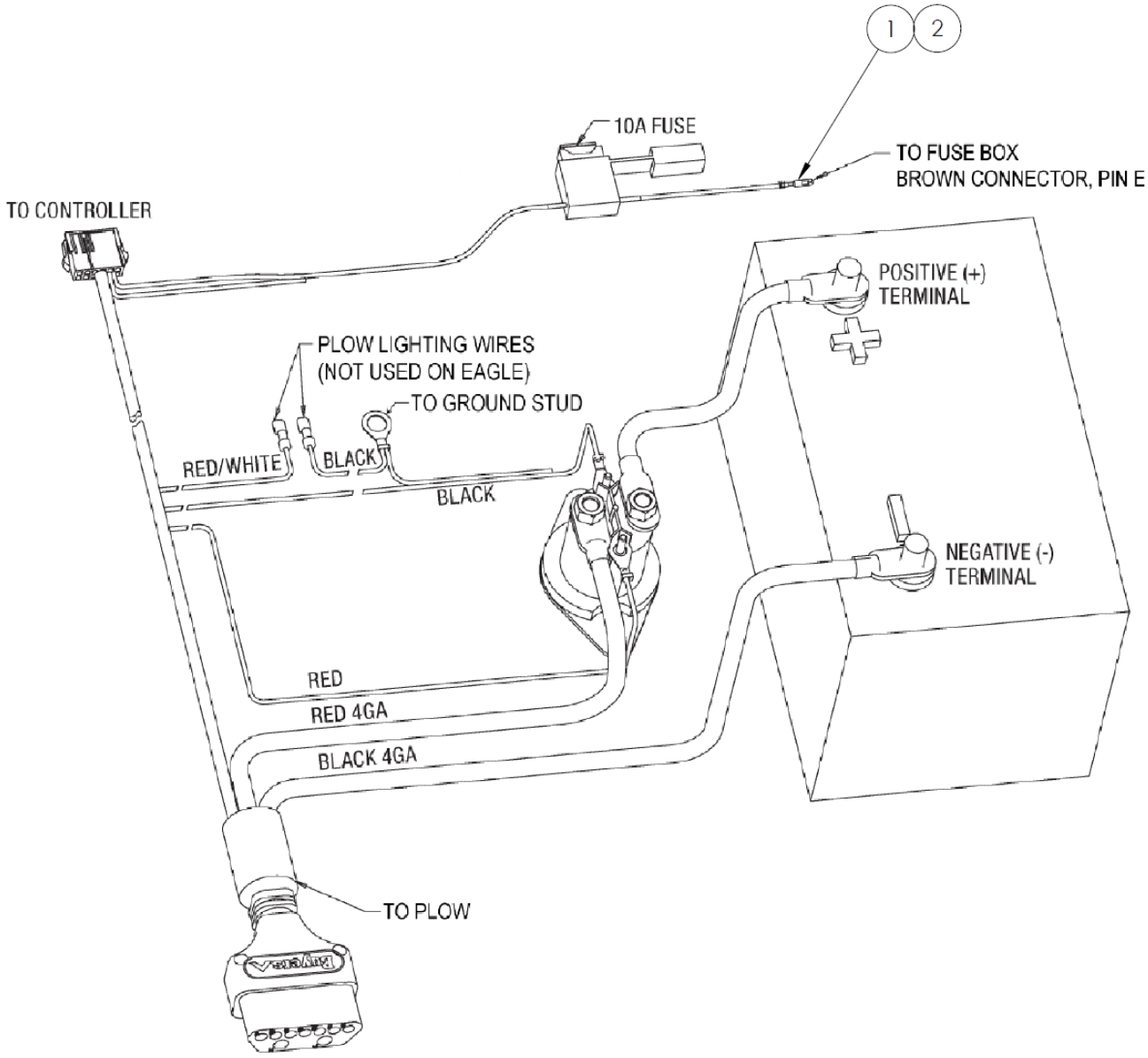
COMPATIBILITY NOTES: Not compatible with some front hitch options. Hitch may need to be removed to install plow.



22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*



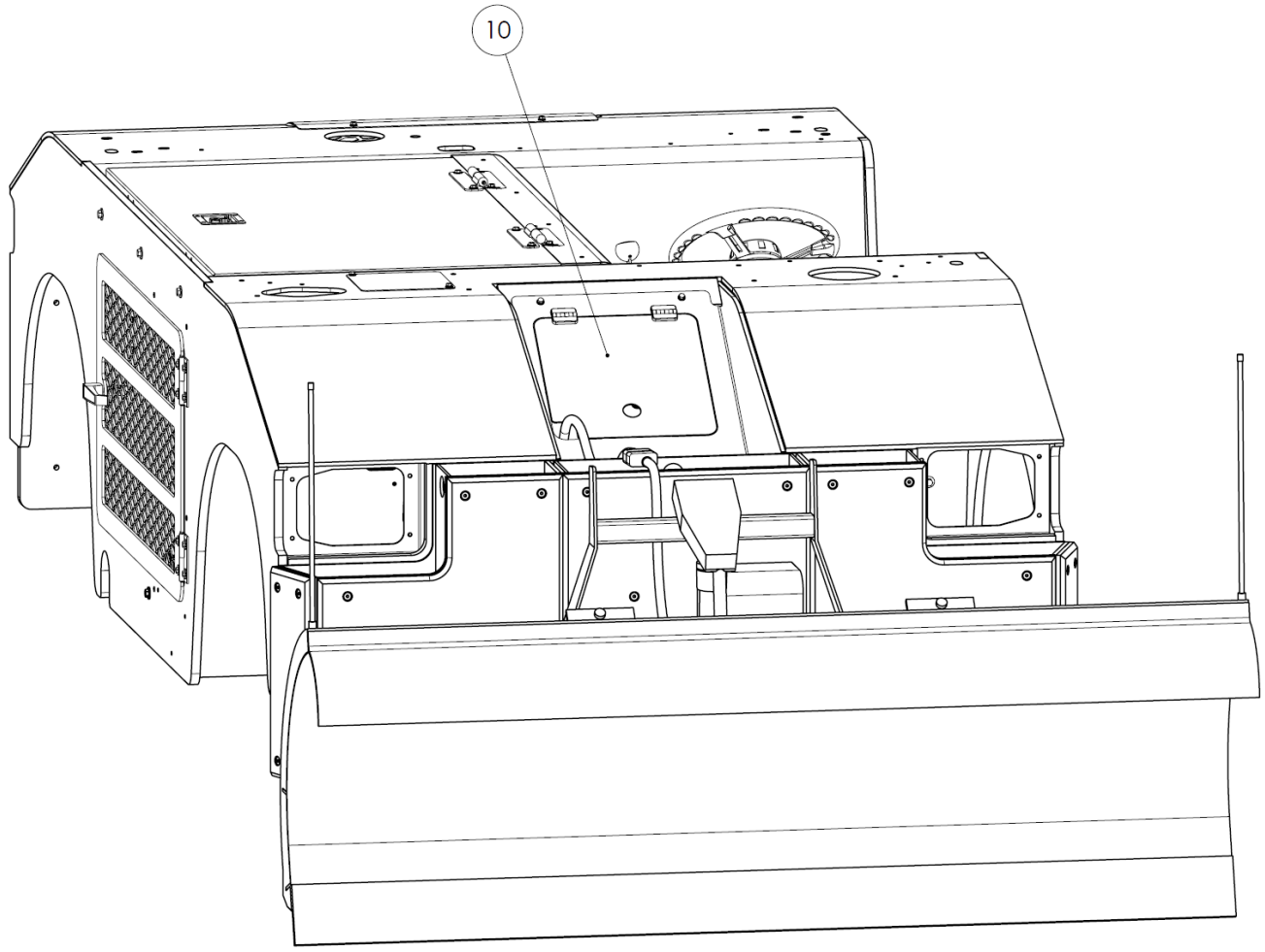
22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*



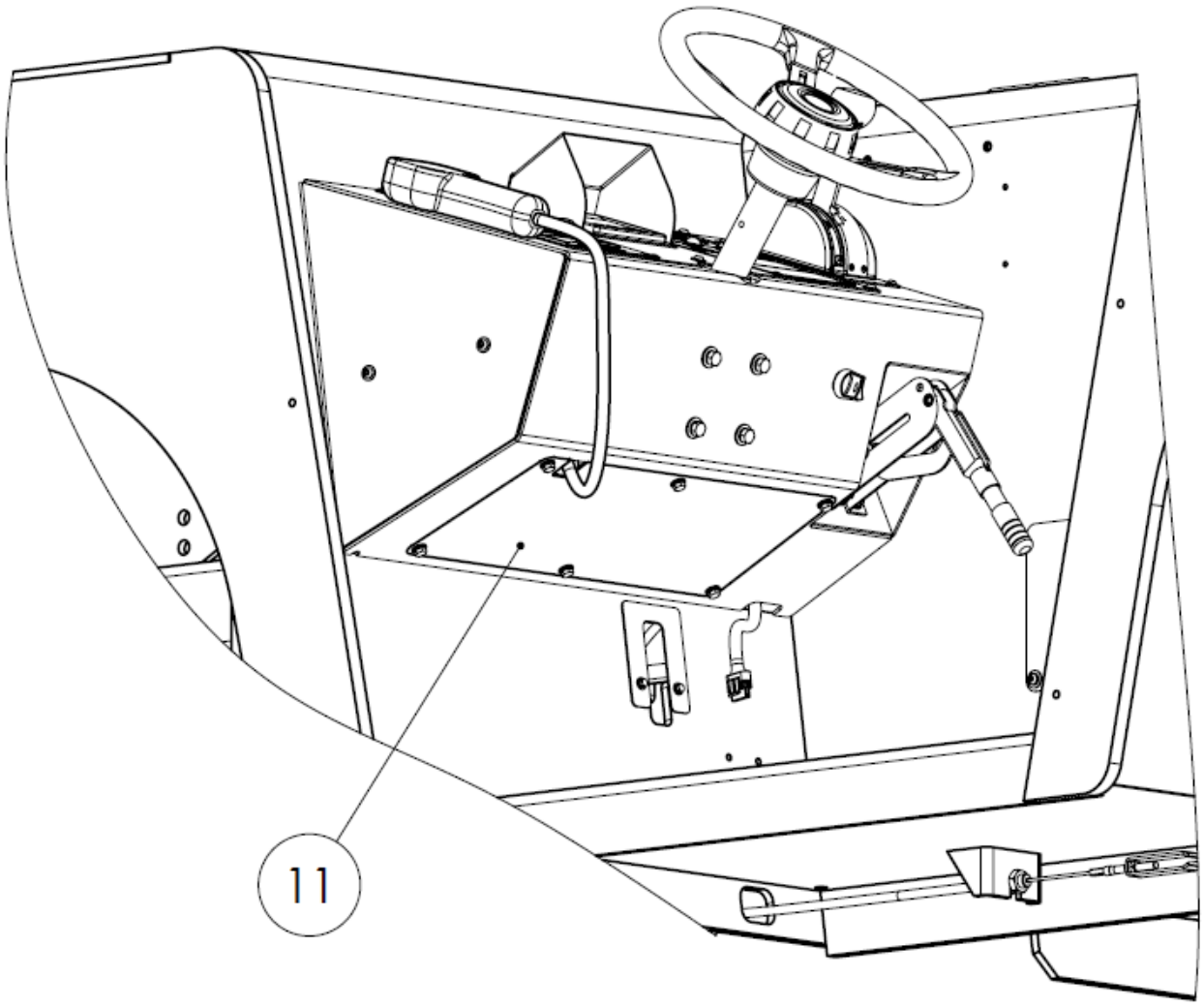
WIRING SHOULD BE COMPLETED PER THE PLOW MANUFACTURER'S INSTRUCTIONS WITH THE FOLLOWING NOTES:

- The black and red/white wires for lighting are not used on the Eagle tractor.
- The "acc power" connection should be tied into the vehicle fuse box. Brown connector, pin E.
- A 10 amp mini fuse must be installed to the fuse box, location f9.
- The chassis ground ring terminal should be installed on the chassis ground stud under the transmission.
- Mount the motor relay to the chassis near the battery after laying out all cables and ensuring proper fit.

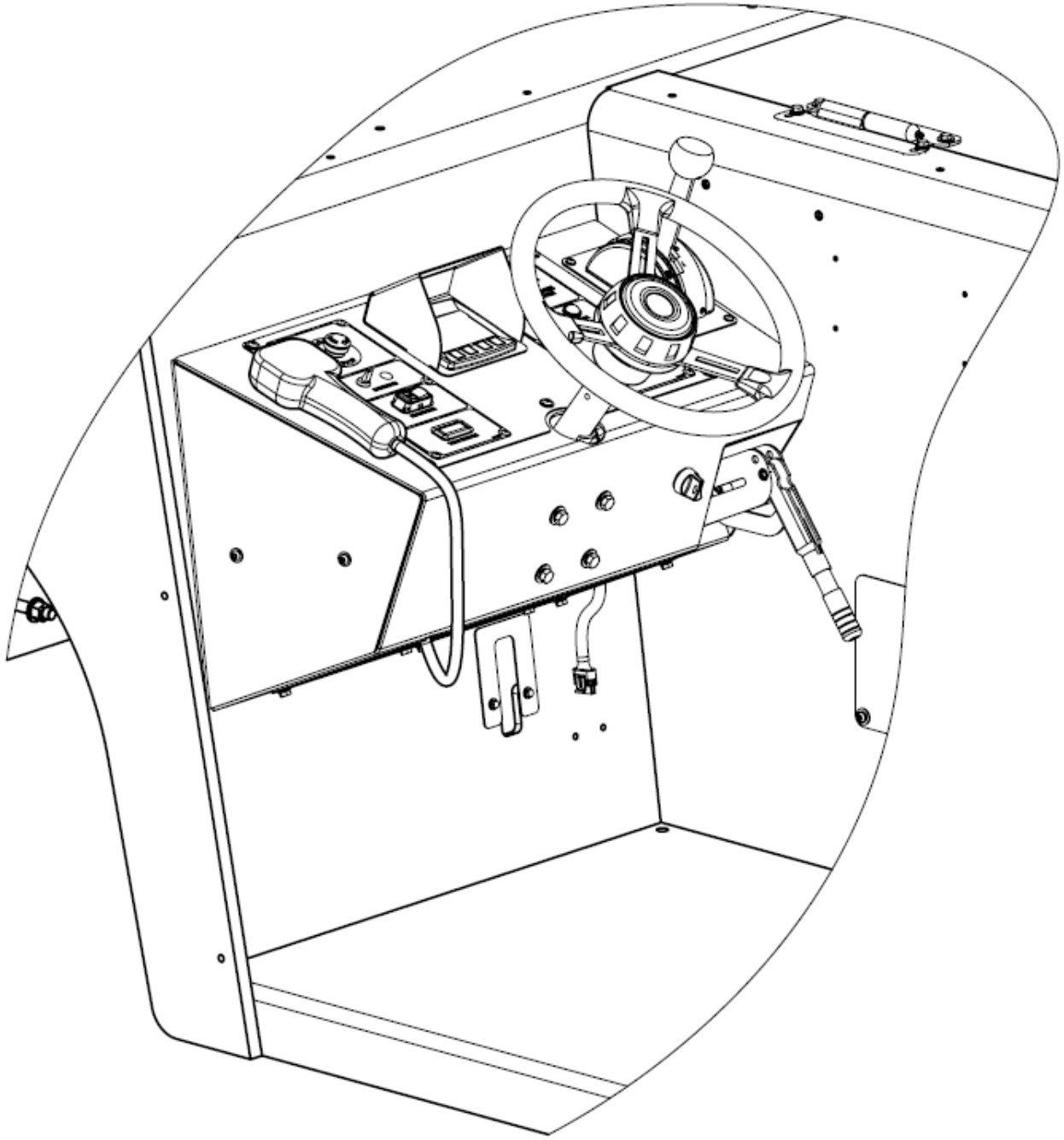
22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*



22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*



22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*



NOTES:

- Plow wiring should enter the tug through the notch in the access
- Panel and exit through the notch in the under-dash cover after
- Passing through the parking brake cable hole.
- Secure wiring to prevent chafing.
- Controller shall be secured to the dash using the upper left dash mounting screw.

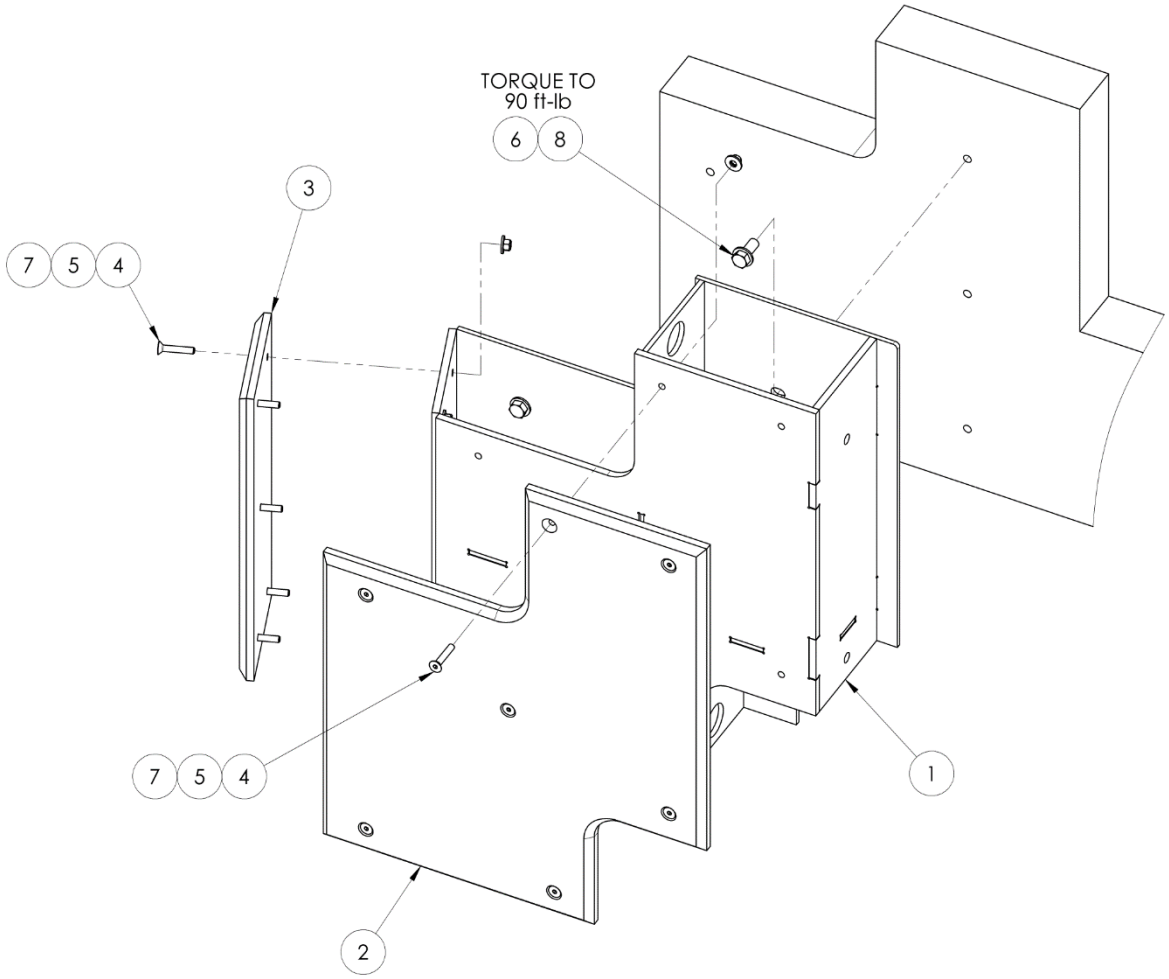
22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*

Parts List – Front Push Bumper with Plow

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	12077411	DELPHI TERMINAL	1
2	15324984	CONNECTOR WIRE SEAL	1
3	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	2
4	G-1250-1050W	FLATWASHER, 1/4 WIDE	2
5	G-1250-1070W	FLATWASHER, 3/8 WIDE	2
6	G-1420-107016	BOLT, 3/8-16 X 1.75" HEX HD GR 8	1
7	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	2
8	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	1
9	MIN-10	MINI AUTOMOTIVE BLADE FUSE, 10A	1
10	S-3931-00	FR SIGHT TUNNEL ACC COVER (WP)	1
11	S-3932-00	COVER, UNDER DASH (WP)	1
12	S-4165-00	BRACKET, PLOW SOLENOID (P)	1
13	Z-11001	ASY, RH BUMPER W/PLOW	1
14	Z-11003	ASY, LH SPLIT BUMPER W/PLOW	1
15	Z-11006	ASY, CNTR PUSH BUMPER W/PLOW	1
16	Z-11918-00	MOD, PLOW W HITCH CLEARANCE (WP)	1

22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*

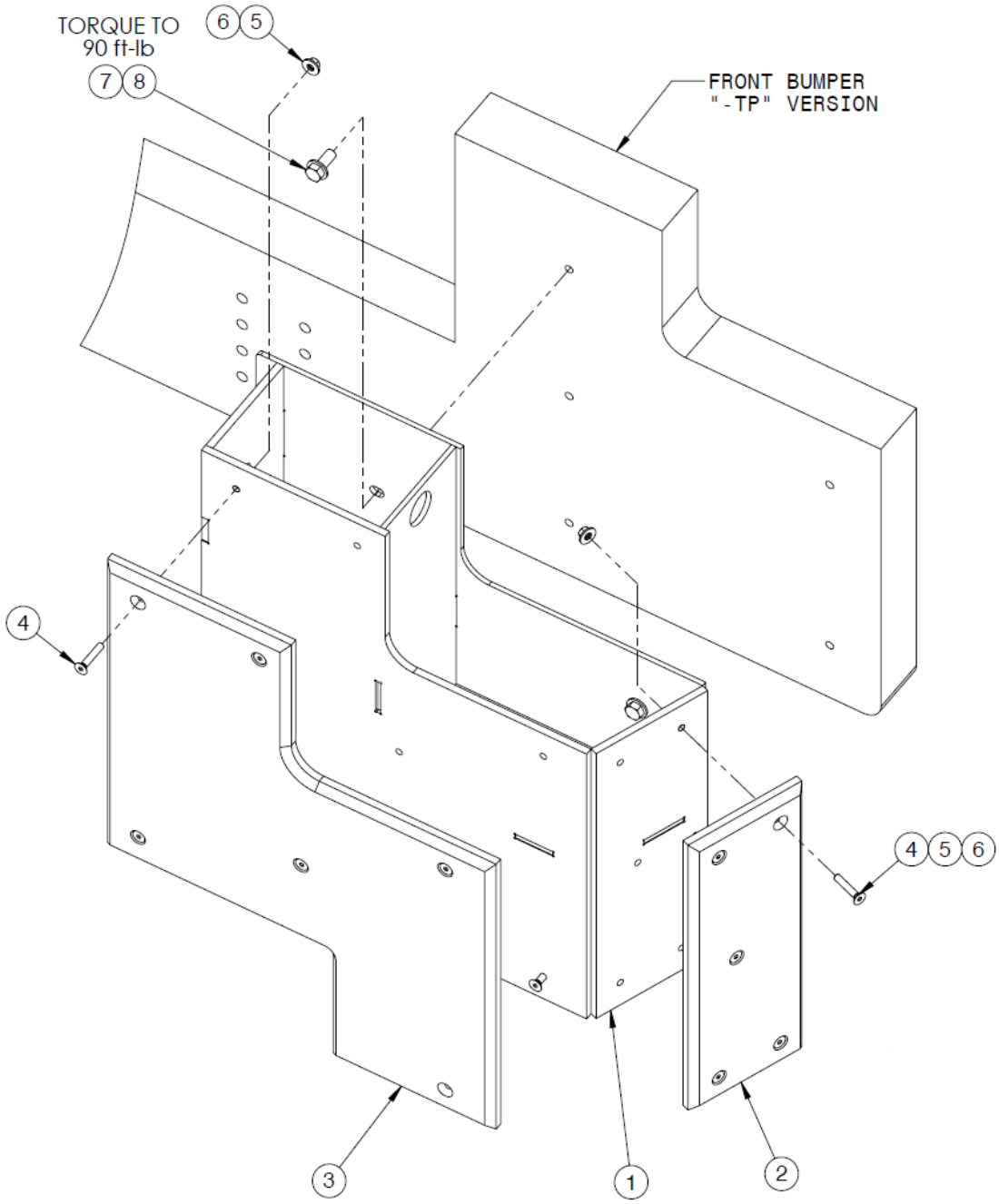


Parts List – Z-11001 Front RH Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-11002-00	WLD, FR RH BUMPER W/PLOW (P)	1
2	H-4759	UHMW BUMPER W/PLOW, RH	1
3	H-4402	UHMW BUMPER, FRT SIDE	1
4	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	12
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	12
6	G-1250-1090N	FLATWASHER, 1/2 NARROW	5
7	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	12
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	5

22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*

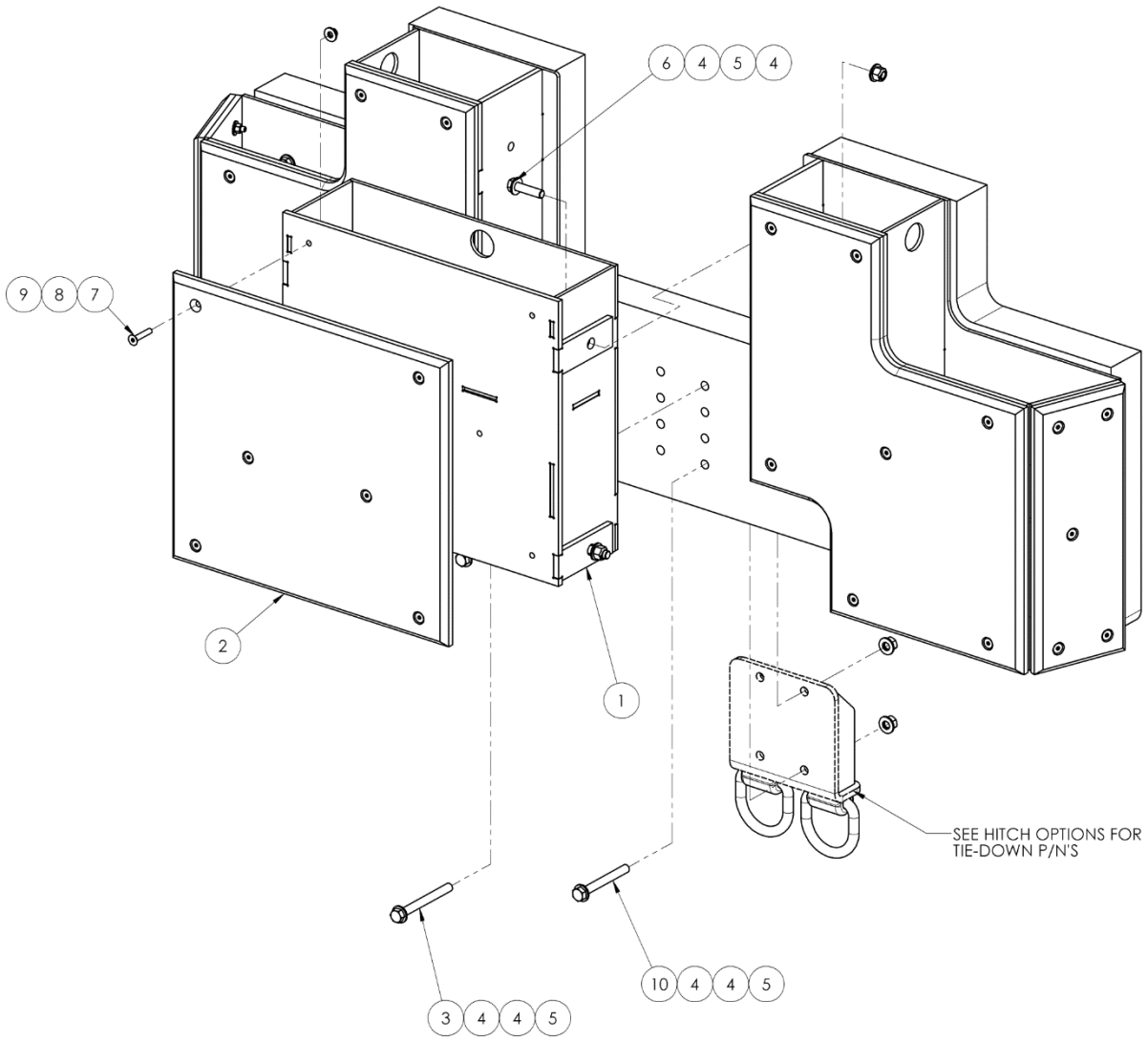


Parts List – Z-11003 Front LH Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-11004	WLD, FR LH SPLIT BUMPER W/PLOW	1
2	H-4402	UHMW BUMPER, FRT SIDE	1
3	H-4760	UHMW BUMPER W/ PLOW, LH	1
4	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	11
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	11
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	11
7	G-1250-1090N	FLATWASHER, 1/2 NARROW	5
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	5

22.1.4 FRONT PUSH BUMPER WITH QUICK-ATTACH SNOW PLOW *(continued)*



Parts List – Z-11006 Front Center Push Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-11007	WLD, CNTR PUSH BMPR W/PLOW (P)	1
2	H-4761	UHMW BUMPER W/ PLOW, CENTER	1
3	G-1420-109050	BOLT, 1/2-13 X 5.0" HEX HD GR 8	2
4	G-1250-1090N	FLATWASHER, 1/2 NARROW	16
5	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	8
6	G-1420-109020	BOLT, 1/2-13 X 2.00" HEX HD GR 8	4
7	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	6
8	G-1250-1060W	FLATWASHER, 5/16 WIDE	6
9	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	6
10	G-1420-109044	BOLT, 1/2-13 HEX HD GR 8	2

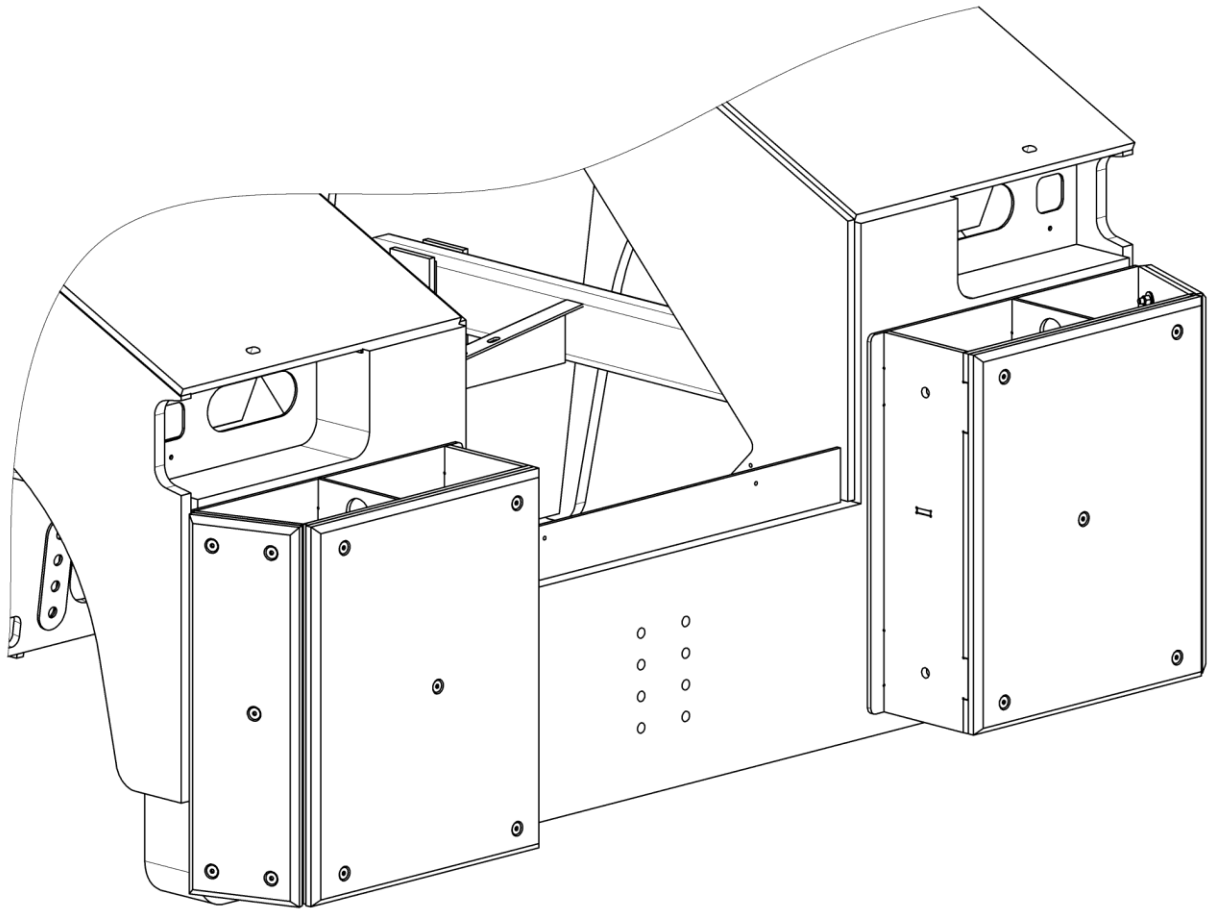
22.2 REAR END OPTIONS FEATURE

22.2.1 SPLIT REAR PUSH BUMPER

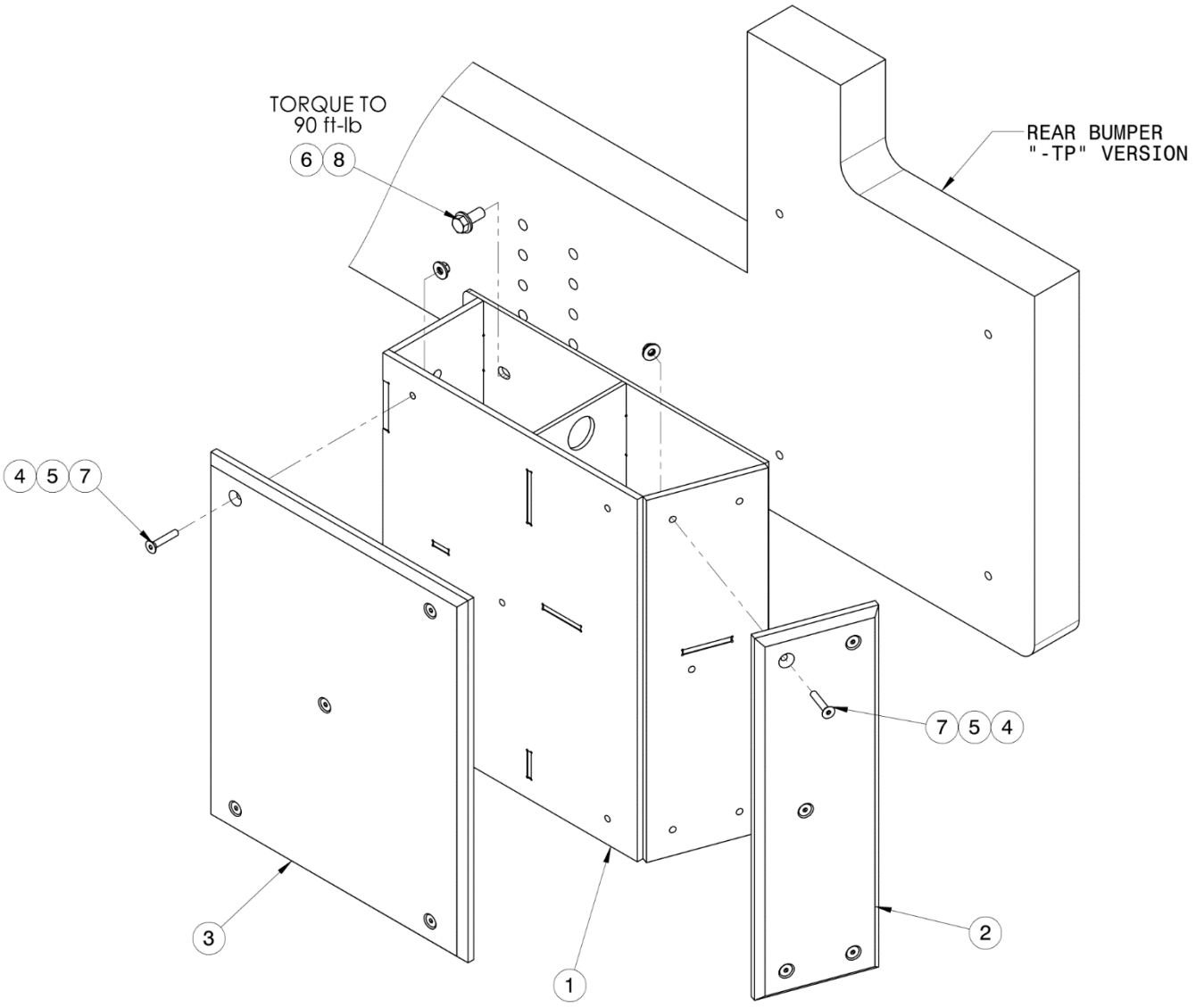
FEATURE NUMBER: TTR6TP-RPB
OPTION NUMBER: TTR6TP-RPB-O

DESCRIPTION: Split rear push bumper with replaceable UHMW contact surfaces. Bumper is split to allow installation of a rear hitch between the two push bumpers

COMPATIBILITY NOTES: No compatibility concerns



22.2.1 SPLIT REAR PUSH BUMPER *(continued)*



Parts List – Rear RH and LH Push Bumpers

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

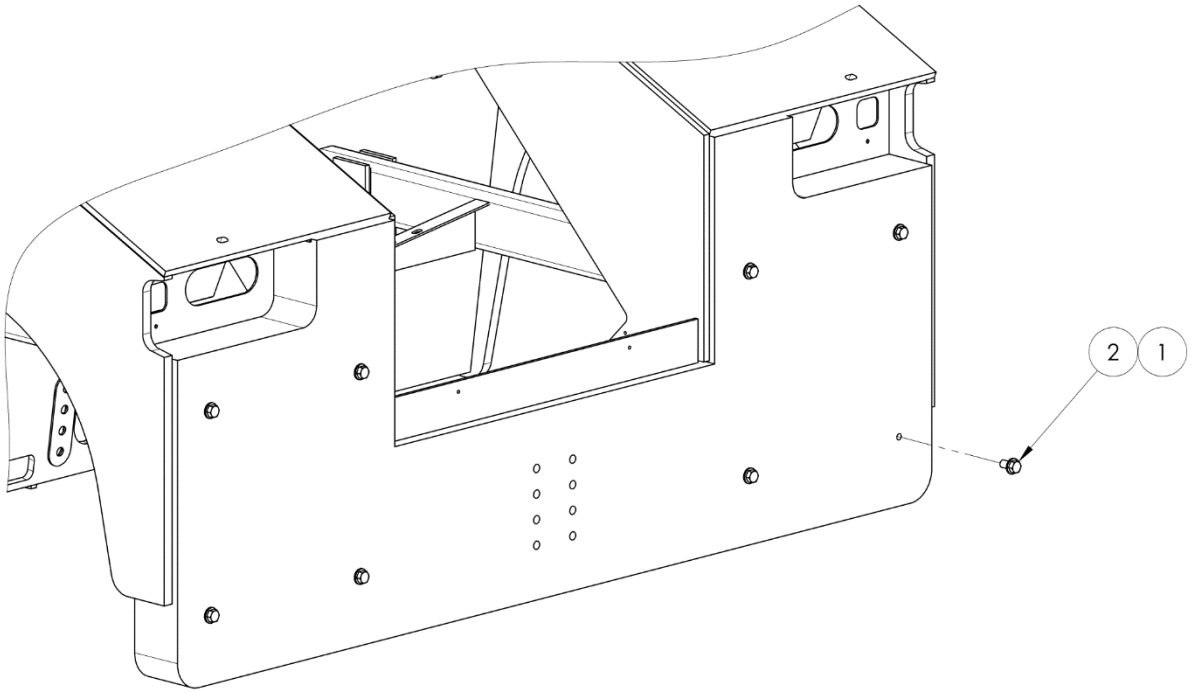
Item	Part Number	Description	Qty
1	Z-10462-00	WLD, RR SPLIT BUMPER	1
2	H-4479	RR SIDE UHMW BUMPER	1
3	H-4480	RR UHMW BUMPER	1
4	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	10
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	10
6	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
7	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	10
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	4

22.2.2 NO REAR PUSH BUMPER

FEATURE NUMBER: TTR6TP-RPB
OPTION NUMBER: TTR6TP-RPB-1

DESCRIPTION: No rear push bumper

COMPATIBILITY NOTES: No compatibility concerns



Parts List – No Rear Push Bumpers

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

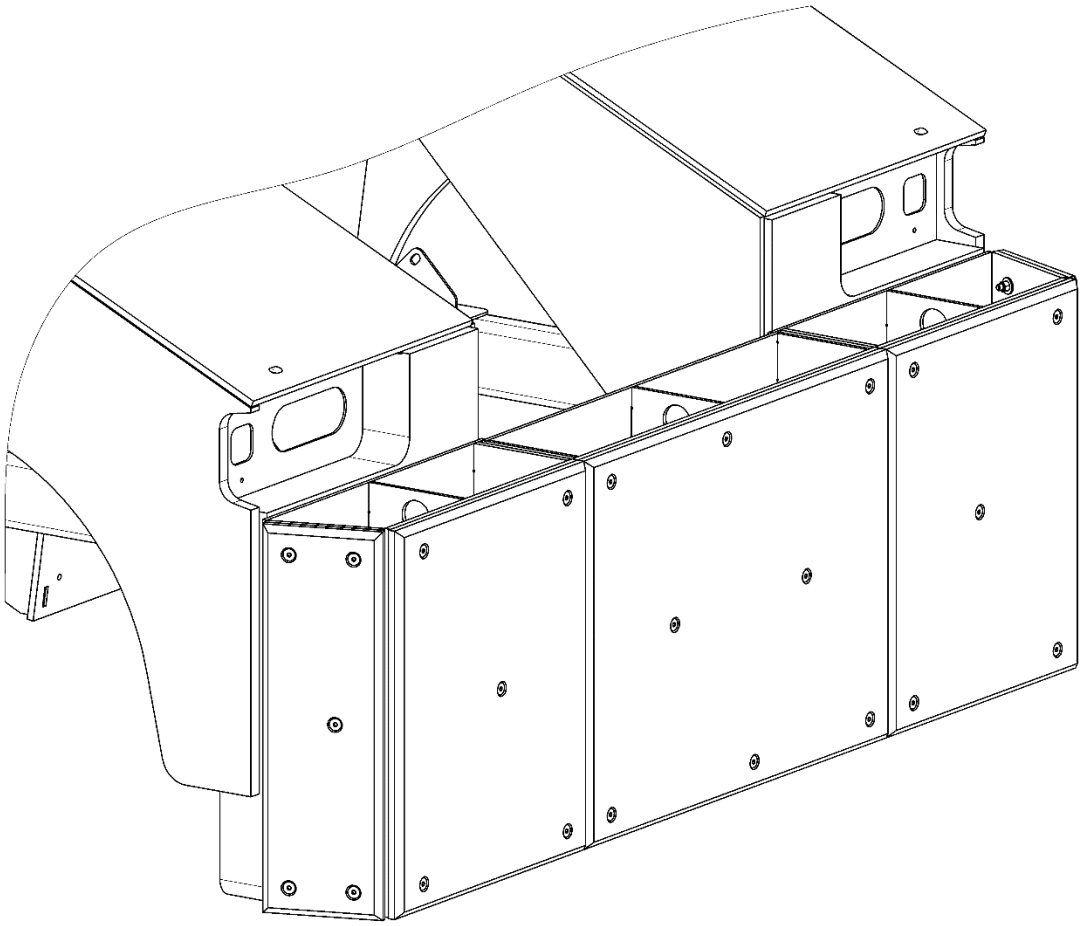
Item	Part Number	Description	Qty
1	G-1250-1090N	FLATWASHER, 1/2 NARROW	8
2	G-1420-109010	BOLT, 1/2-13 X 1.0" HEX HD GR 8	8

22.2.3 FULL WIDTH REAR PUSH BUMPER

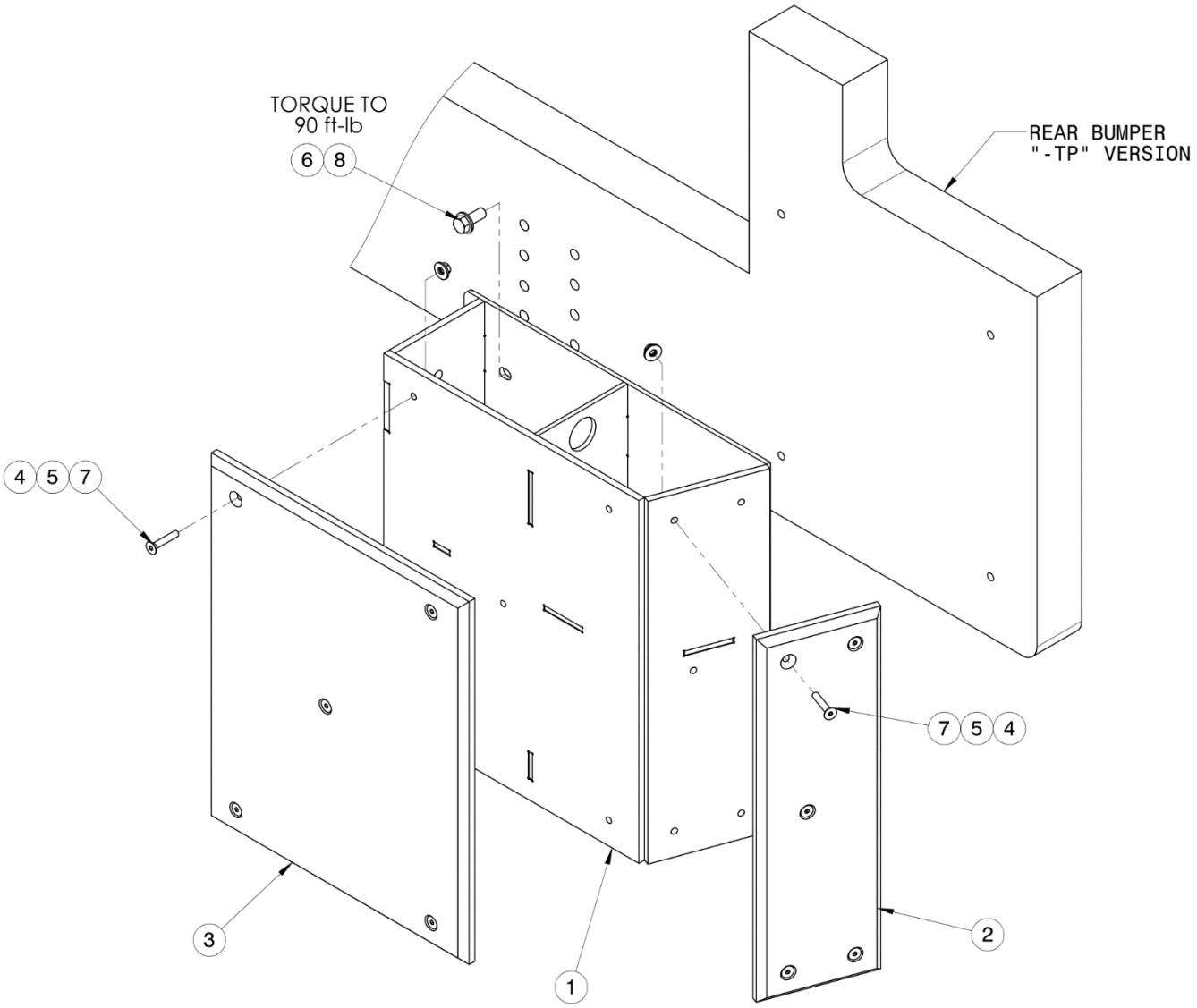
FEATURE NUMBER: TTR6TP-RPB
OPTION NUMBER: TTR6TP-RPB-2

DESCRIPTION: Full-width rear push bumper with replaceable UHMW contact surfaces

COMPATIBILITY NOTES: This push bumper option prevents any rear hitch or other rear bumper installed components



22.2.3 FULL WIDTH REAR PUSH BUMPER *(continued)*

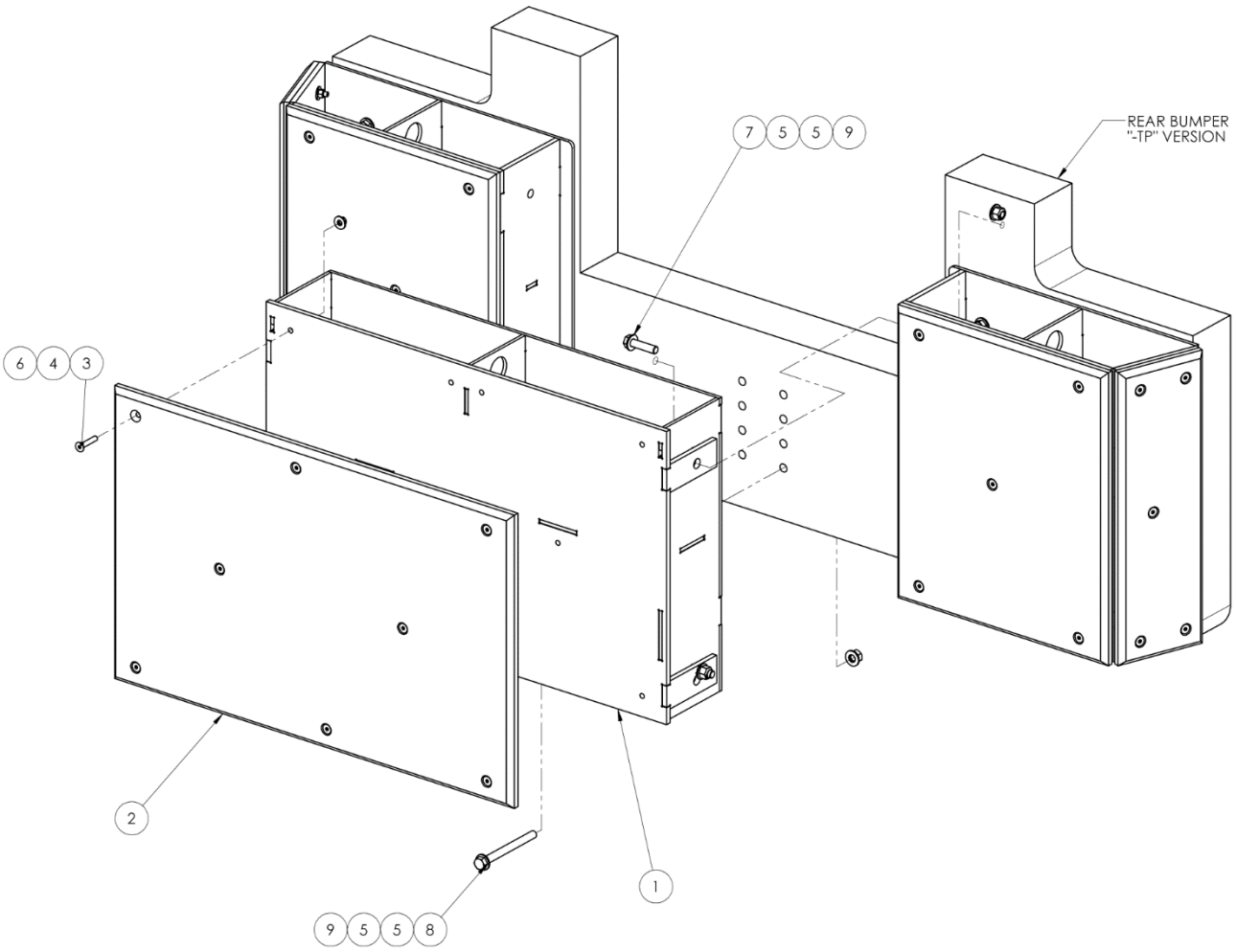


Parts List – Rear RH and LH Side Push Bumpers

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10462-00	WLD, RR SPLIT BUMPER	1
2	H-4479	RR SIDE UHMW BUMPER	1
3	H-4480	RR UHMW BUMPER	1
4	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	10
5	G-1250-1060W	FLATWASHER, 5/16 WIDE	10
6	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
7	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	10
8	G-1420-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 8	4

23.2.3 FULL WIDTH REAR PUSH BUMPER *(continued)*



Parts List – Rear Center Bumper

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10810-00	WLD, CENTER RR PUSHBUMPER (P)	1
2	H-4688	UHMW BUMPER, CENTER REAR	1
3	G-1152-106216	82 DEG FHC, 5/16-18 X 1.75	8
4	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
5	G-1250-1090N	FLATWASHER, 1/2 NARROW	16
6	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	8
7	G-1420-109020	BOLT, 1/2-13 X 2.00" HEX HD GR 8	4
8	G-1420-109050	BOLT, 1/2-13 X 5" HEX HD GR 8	4
9	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	8

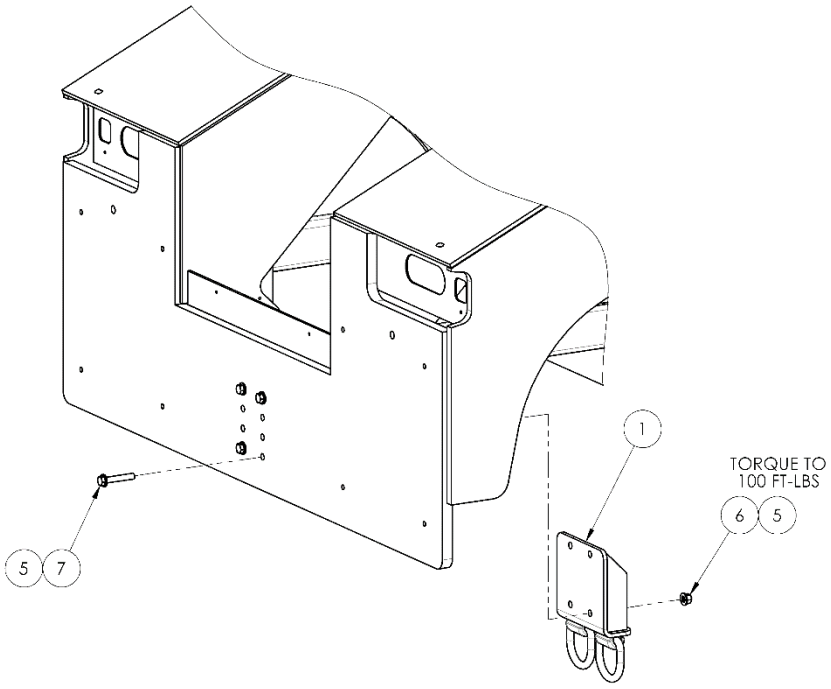
22.3 FRONT HITCH OPTIONS FEATURE

22.3.1 NO FRONT HITCH

FEATURE NUMBER: TTR6TP-FRH
OPTION NUMBER: TTR6TP-FRH-O

DESCRIPTION:
- No front hitch
- If equipped with TTR6TP-FPB-O front full-width push bumper, discard hardware listed in this BOM and use hardware from the push bumper option

COMPATIBILITY NOTES: No compatibility concerns



Parts List – No Front Hitch

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

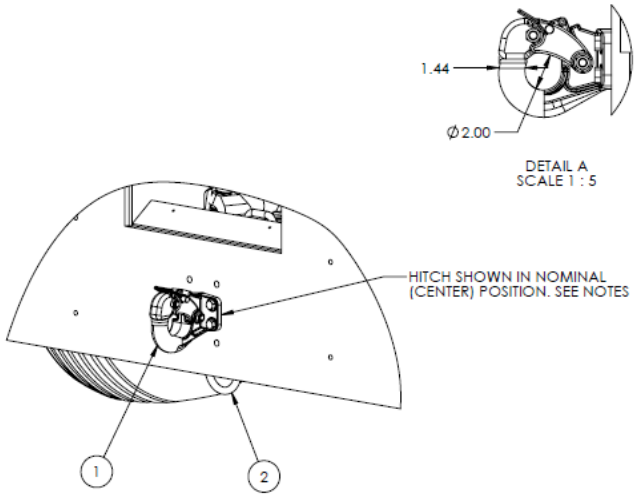
Item	Part Number	Description	Qty
1	Z-10846-00	TIE-DOWN BRACKET, TRANSIT PRO (P)	1
2	G-1250-1090N	FLATWASHER, 1/2 NARROW	8
3	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4
4	G-1420-109030	BOLT, 1/2-13 X 3” HEX HD GR 8	4

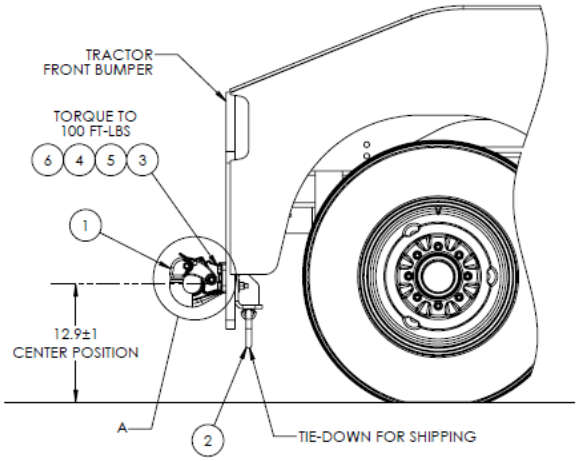
22.3.2 FRONT PINTLE HITCH

FEATURE NUMBER: TTR6TP-FRH
OPTION NUMBER: TTR6TP-FRH-A

DESCRIPTION:
- Pintle hook
- Forged steel construction
- With tethered lock pin
- Hitch shown in nominal (center) position. Additional holes in front bumper allow hitch to be relocated +/- 1.75" from nominal position

COMPATIBILITY NOTES: Front hitch installation requires either TTR6TP-FPB-1 no front push bumper, or TTR6TP-FPB-2 front split push bumper to be selected. Not compatible with a full-width front push bumper





Parts List – Front Pintle Hitch

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

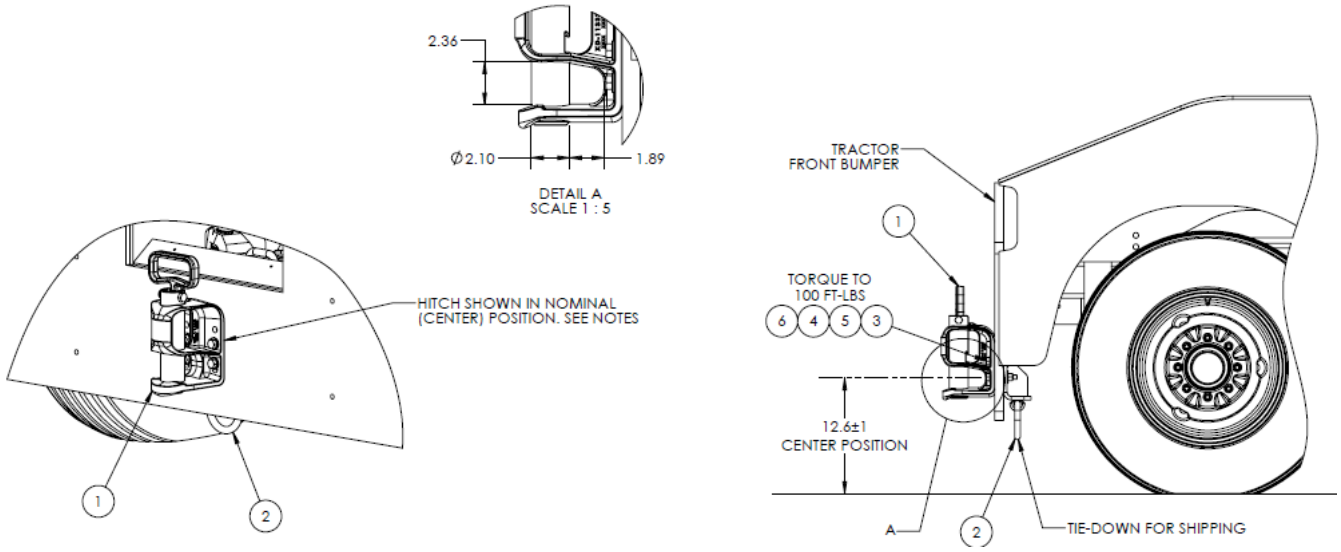
Item	Part Number	Description	Qty
1	AE-OPT-0028	PINTLE HOOK	1
2	Z-10536-00	WLD, TIE DOWN (P)	1
3	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
4	G-1250-1090W	FLATWASHER, 1/2 WIDE	4
5	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4
6	G-1420-109050	BOLT, 1/2-13 X 5” HEX HD GR 8	4

22.3.3 FRONT E-HITCH

FEATURE NUMBER: TTR6TP-FRH
OPTION NUMBER: TTR6TP-FRH-B

DESCRIPTION:
- SAF Holland E-Hitch, Ø2 1/8" Pin
- Cast steel construction
- Spring loaded hitch pin with retention capability in the up position
- Hitch shown in nominal (center) position. Additional holes in front bumper allow hitch to be relocated +/- 1.75" from nominal position

COMPATIBILITY NOTES: Front hitch installation requires either TTR6TP-FPB-1 no front push bumper, OR TTR6TP-FPB-2 front split push bumper to be selected. Not compatible with a full-width front push bumper



Parts List – Front E-Hitch

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	AE-OPT-0033-1	E HITCH 2 1/8" PIN YELLOW	1
2	Z-9783-00	TIE-DOWN BRACKET, TT8	1
3	G-1420-109030	BOLT, 1/2-13 X 3 H.H. GR 8	4
4	G-1250-1090W	FLATWASHER, 1/2 WIDE	4
5	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
6	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4

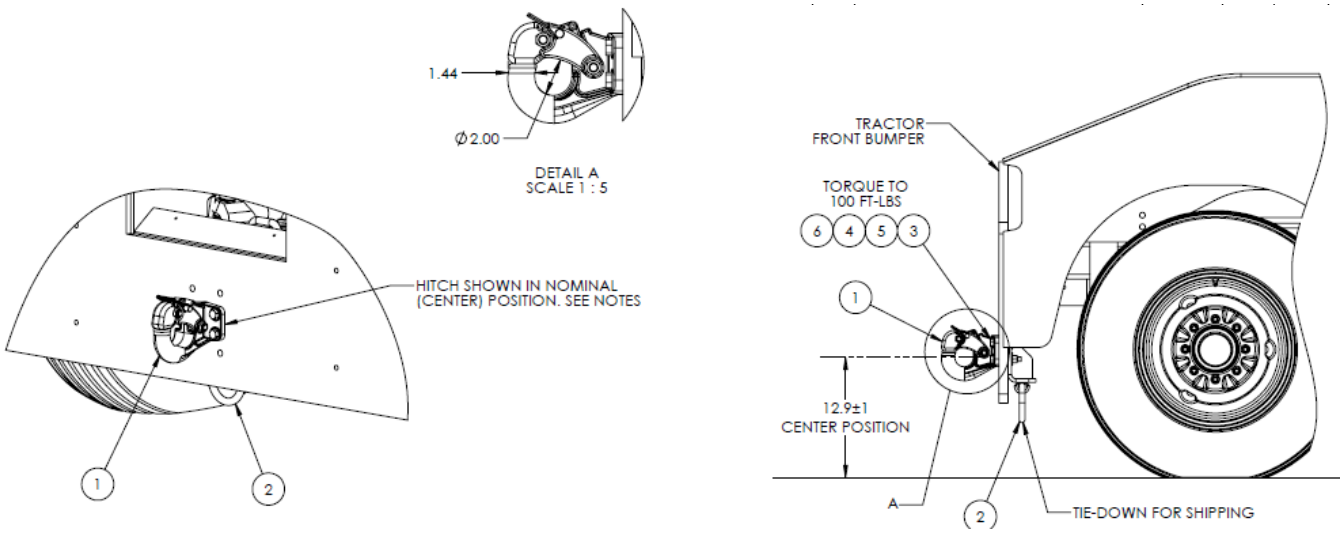
22.4 REAR HITCH OPTIONS FEATURE

22.4.1 REAR PINTLE HITCH

FEATURE NUMBER: TTR6TP-RRH
OPTION NUMBER: TTR6TP-RRH-O

DESCRIPTION:
- Pintle hook
- Forged steel construction
- With tethered lock pin
- Hitch shown in nominal (center) position. Additional holes in rear bumper allow hitch to be relocated +/- 1.75" from nominal position

COMPATIBILITY NOTES: Rear hitch installation requires either TTR6TP-RPB-O rear split push bumper, or TTR6TP-RPB-1 no rear push bumper to be selected. Not compatible with a full-width rear push bumper



Parts List – Rear Pintle Hitch

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

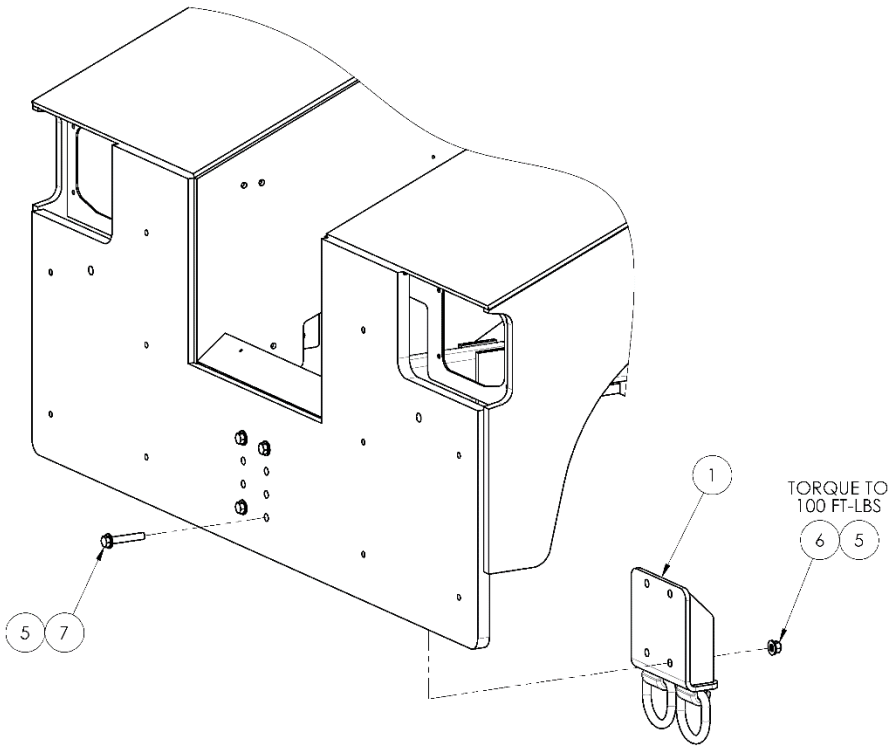
Item	Part Number	Description	Qty
1	AE-OPT-0028	PINTLE HOOK	1
2	Z-9783-00	TIE-DOWN BRACKET, TT8	1
3	G-1420-109030	BOLT, 1/2-13 X 3 H.H. GR 8	4
4	G-1250-1090W	FLATWASHER, 1/2 WIDE	4
5	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
6	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4

22.4.2 NO REAR HITCH

FEATURE NUMBER: TTR6TP-RRH
OPTION NUMBER: TTR6TP-RRH-A

DESCRIPTION:
- No rear hitch
- If equipped with ttr12tp-rpb-2 rear full-width push bumper, discard hardware listed in this BOM and use hardware from the push bumper option

COMPATIBILITY NOTES: No compatibility concerns



Parts List – No Rear Hitch

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	Z-10846-00	TIE-DOWN BRACKET, TRANSIT PRO (P)	1
2	G-1250-1090N	FLATWASHER, 1/2 NARROW	8
3	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4
4	G-1420-109030	BOLT, 1/2-13 X 3” HEX HD GR 8	4

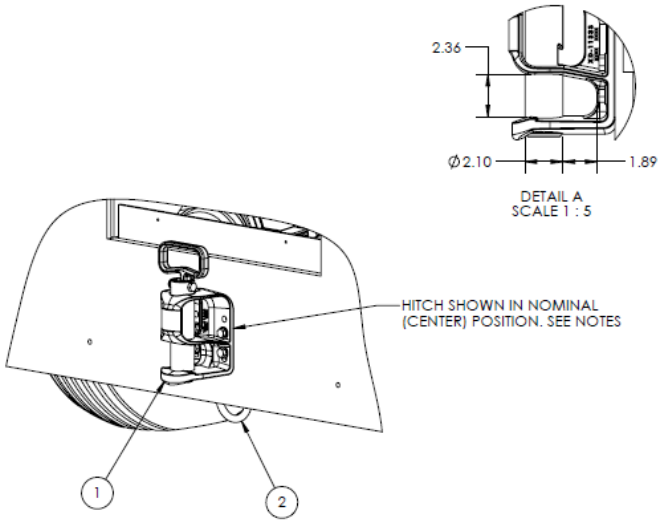
22.4.3 REAR H-HITCH

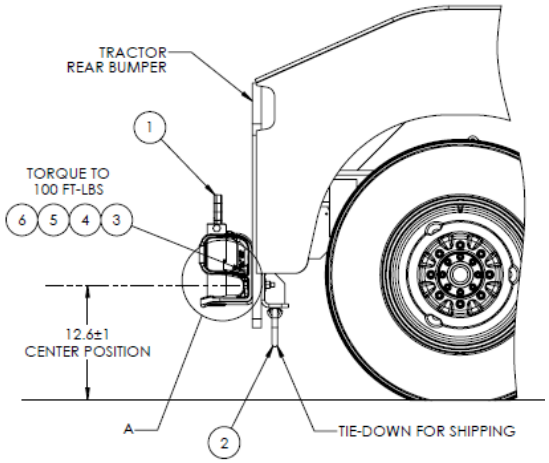
FEATURE NUMBER: TTR6TP-RRH
OPTION NUMBER: TTR6TP-RRH-B

DESCRIPTION:

- SAF Holland E-Hitch, Ø2 1/8" Pin
- Cast steel construction
- Spring loaded hitch pin with retention capability in the up position
- Hitch shown in nominal (center) position. Additional holes in rear bumper allow hitch to be relocated +/- 1.75" from nominal position

COMPATIBILITY NOTES: Rear hitch installation requires either TTR6TP-RPB-O rear split push bumper, or TTR6TP-RPB-1 no rear push bumper to be selected. Not compatible with a full-width rear push bumper





Parts List – Rear E-Hitch

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	AE-OPT-0033-1	E HITCH 2 1/8" PIN YELLOW	1
2	Z-9783-00	TIE-DOWN BRACKET, TT8	1
3	G-1420-109030	BOLT, 1/2-13 X 3 H.H. GR 8	4
4	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
5	G-1250-1090W	FLATWASHER, 1/2 WIDE	4
6	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4

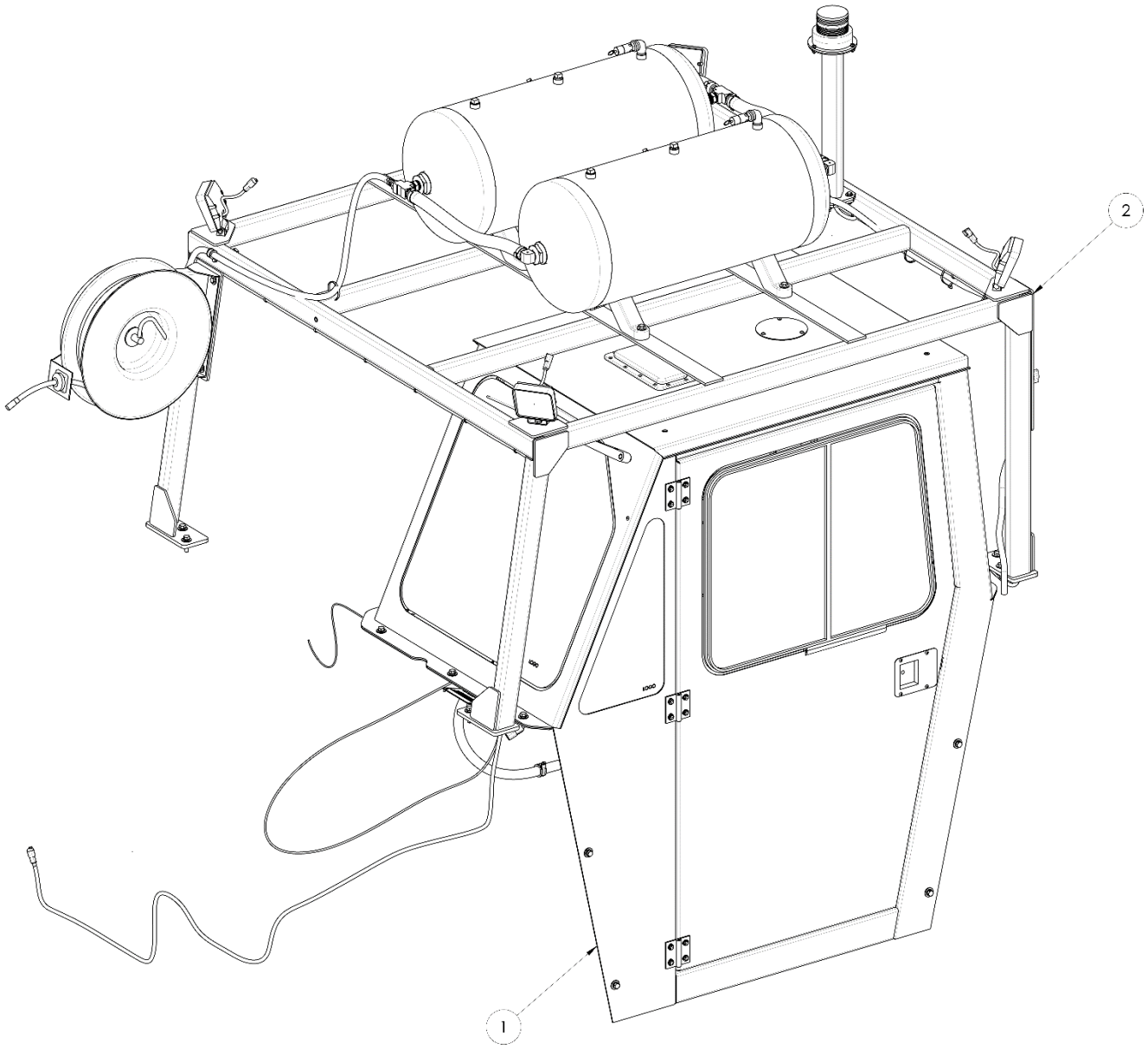
22.5 CAB AND OVERHEAD GUARD FEATURE

22.5.1 STANDARD HEATED CAB

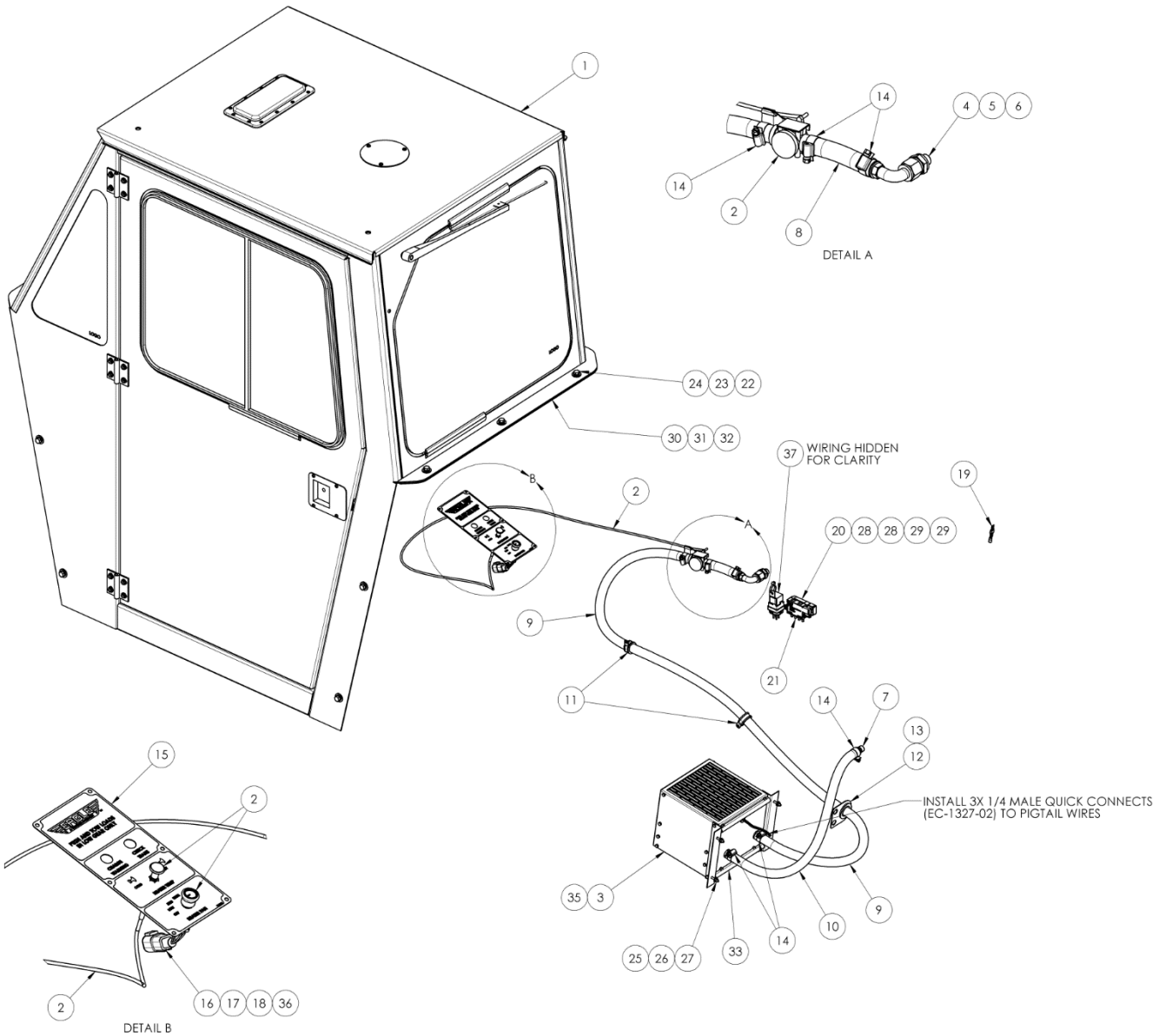
FEATURE NUMBER: TTR6TP-CAB
OPTION NUMBER: TTR6TP-CAB-O

DESCRIPTION: Operator cab with heater, defrost fan, front and rear wipers, dome light, and other features
NOTE: If foam tape is provided with cab, H-1204-20 is not required
NOTE: Trim foam tape to fit after applying to all flanges

COMPATIBILITY NOTES: No compatibility concerns



22.5.1 STANDARD HEATED CAB *(continued)*

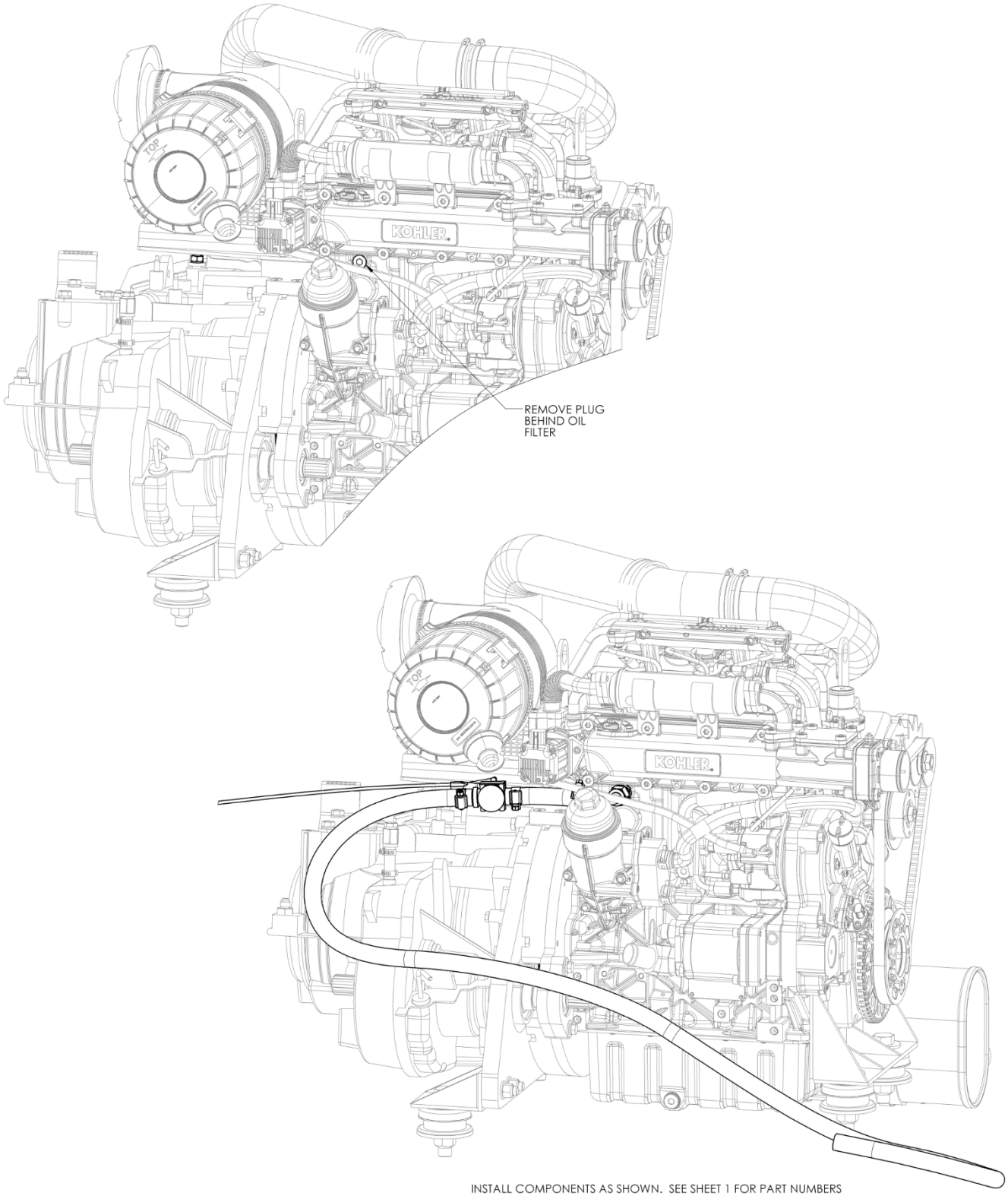


12 AWG

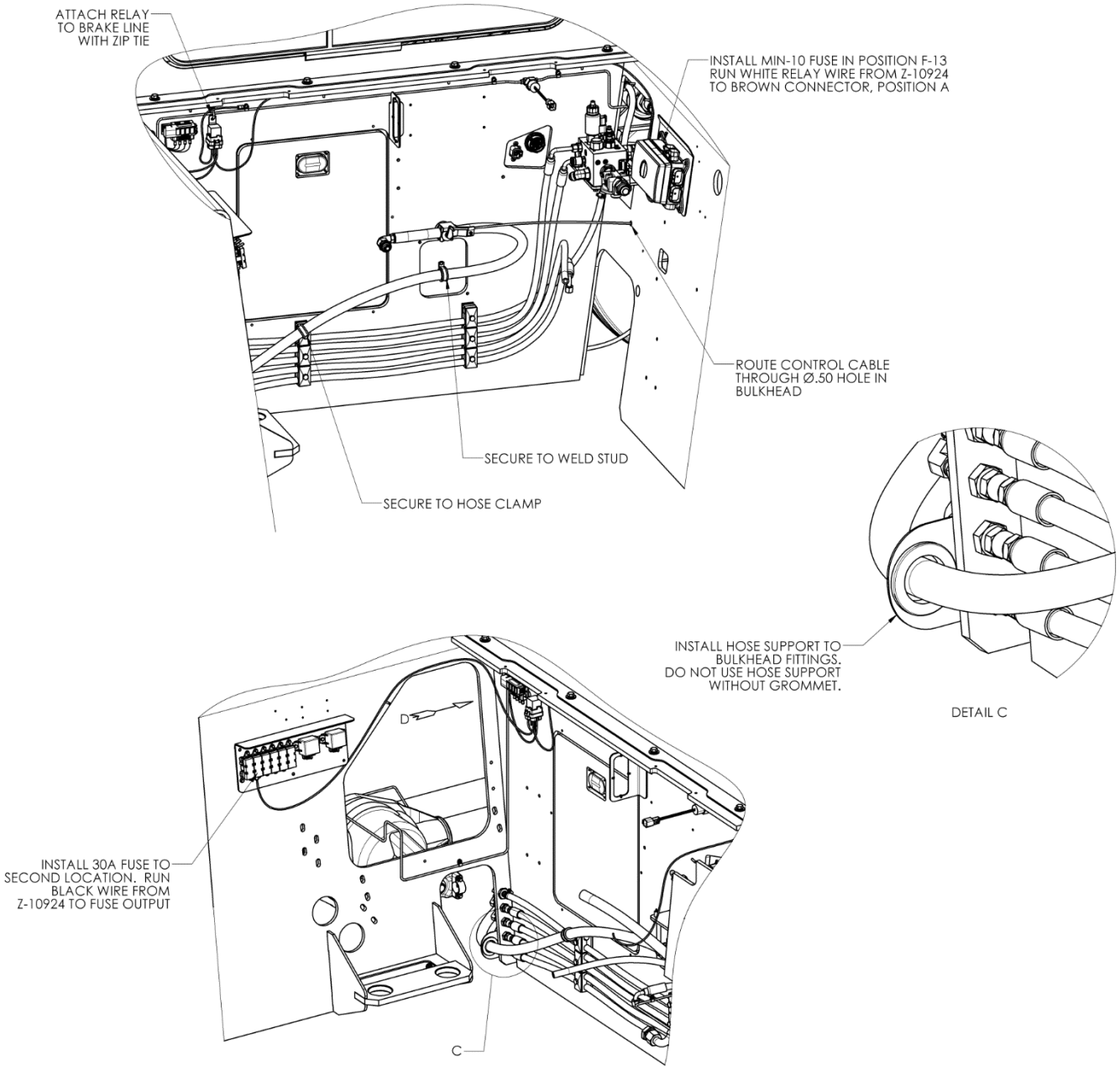
HEATER SWITCH 1/4 F QUICK CONN		HEATER CONNECTOR DTP04-4P	
COMMON	C	1	COMMON
LOW	L	2	LOW
MEDIUM	M	3	MEDIUM
HIGH	H	4	HIGH
(NOT USED)	B		

HEATER FAN SWITCH
WIRING SCHEMATIC

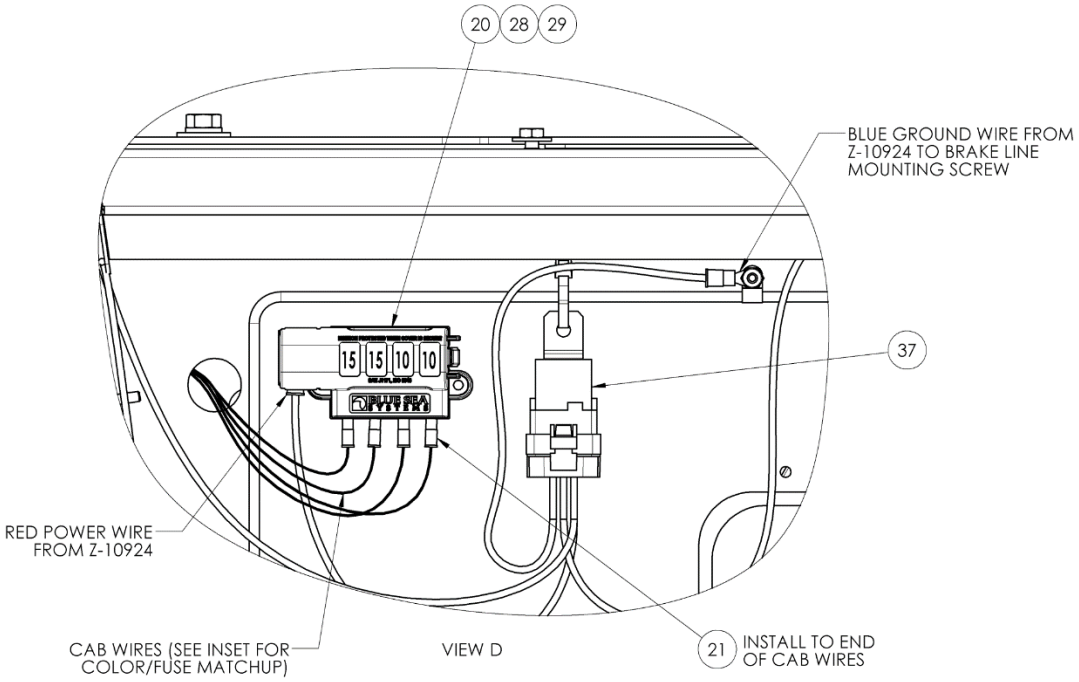
22.5.1 STANDARD HEATED CAB *(continued)*

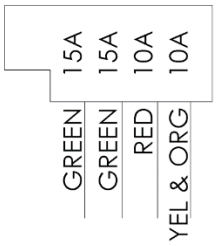


22.5.1 STANDARD HEATED CAB *(continued)*



22.5.1 STANDARD HEATED CAB *(continued)*



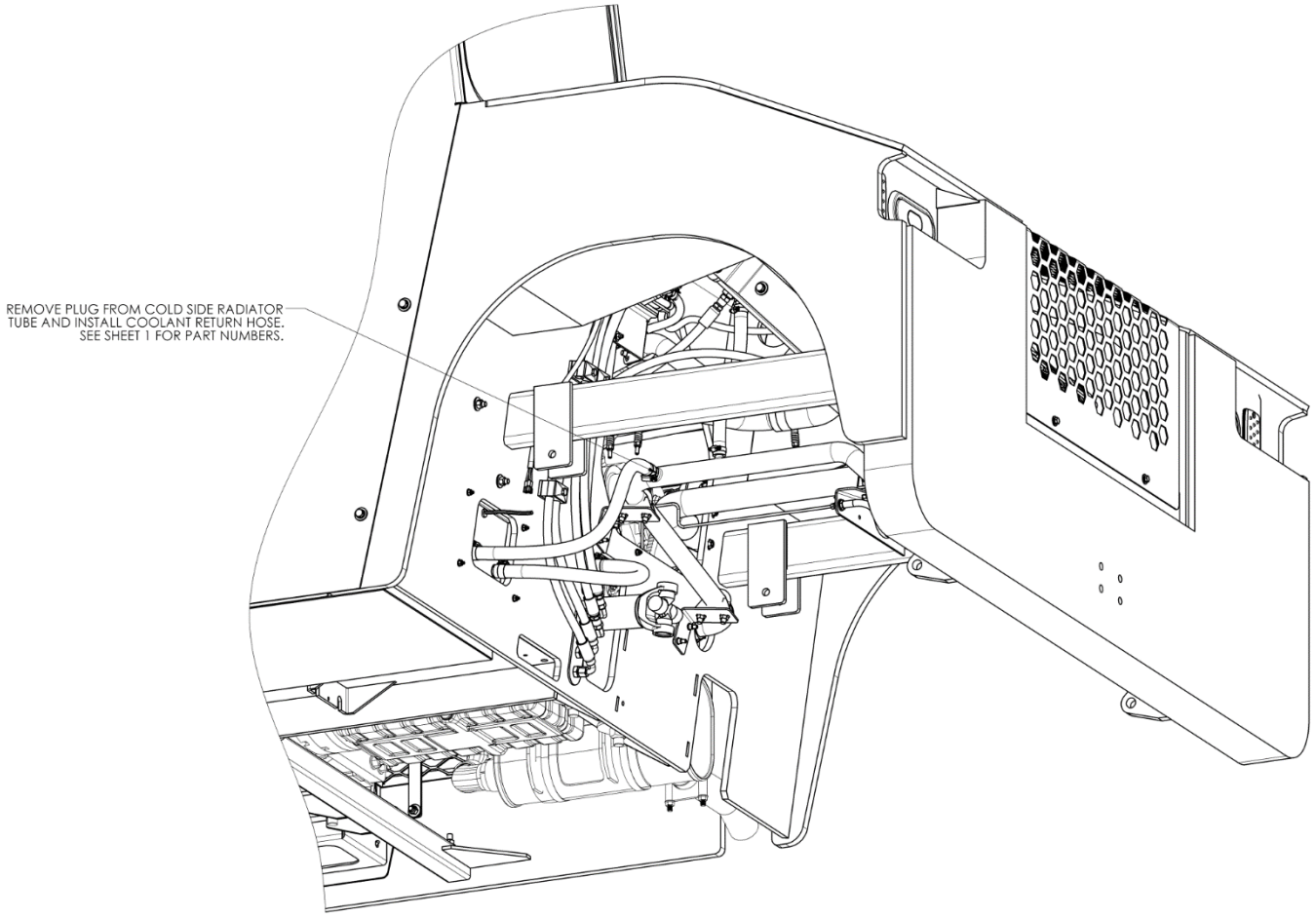


CAB FUSE HOLDER SCHEMATIC

WIRES SHOWN ARE FROM CAB HARNESS.

GROUND BLACK WIRE TO CHASSIS

22.5.1 STANDARD HEATED CAB *(continued)*



CAB HEATER OPERATING INSTRUCTIONS:

- Set heater temperature using push/pull cable control
- Set heater fan speed using dial

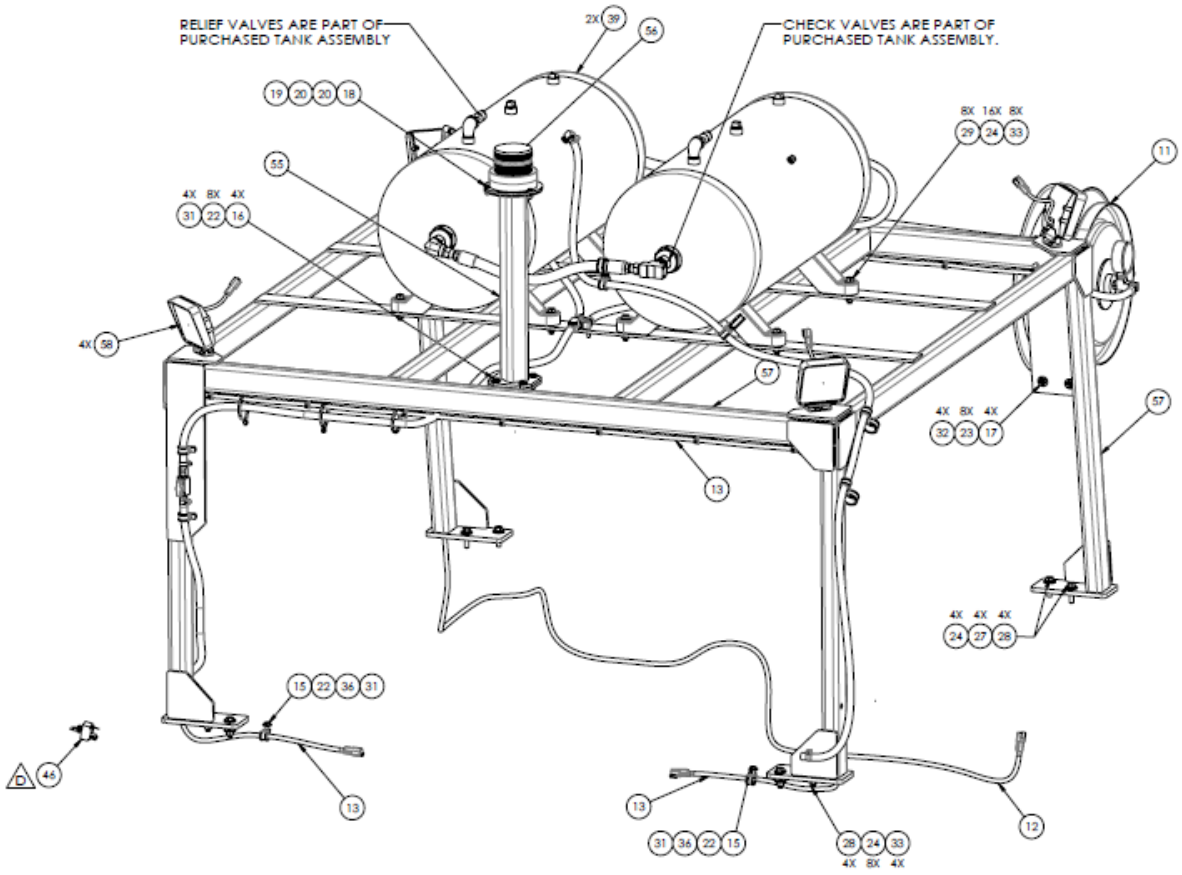
22.5.1 STANDARD HEATED CAB *(continued)*

Parts List – Standard Cab Option

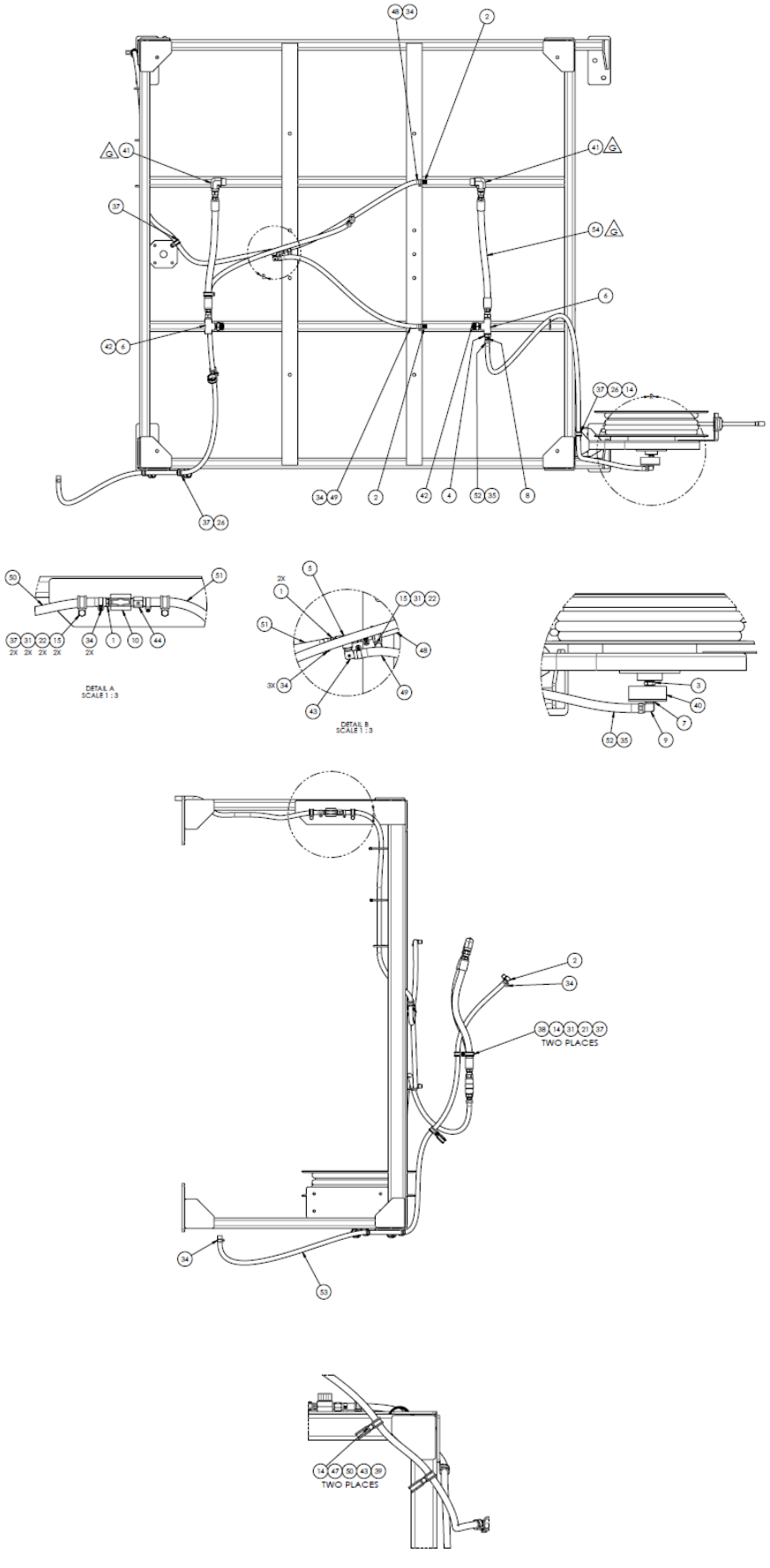
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	H-4656	TTR-8 CAB - VENDOR ASSY	1
2	Z-11094	TRANSIT PRO OHG ASSEMBLY	1
3	TT00-14-001-CA	HEATER CORE	1
4	N-3125	ADAPTER, M16 TO 5/8 JIC M	1
5	N-3126-16	WASHER, BONDED SEAL, 16MM	1
6	N-2069-05-S	ELBOW, SWIVEL, -10	1
7	05710B-106	HOSE BARB - 6 NPT M - 10 HOSE BARB	1
8	TF-1260-10-005.0	HOSE, HEATER, -10	1
9	TF-1260-10-77.5	HOSE, HEATER, -10	1
10	TF-1260-10-25.0	HOSE, HEATER, -10	1
11	H-3521-11	CLAMP, CUSHIONED LOOP 1"	2
12	S-3857-00	HOSE SUPPORT (WP)	1
13	H-1901-28	GROMMET	1
14	H-1426-04	CLAMP, HOSE, SAE -12	6
15	V-2825	RH DASH PLACARD, CAB OPT	1
16	DTP04-4P	DEUTSCH CONNECTOR	1
17	W4P	DEUTSCH LOCK	1
18	0460-215-16141	DEUTSCH TERMINAL	4
19	EC-3146-02	30A FUSE, MIDI/AMI	1
20	EC-3275	FUSE HOLDER, 4 PLACE	1
21	EC-1179-10	FORK TERMINAL - 8 FORK TERM - 16-14 AWG	4
22	G-1250-1070W	FLATWASHER, 3/8 WIDE	14
23	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	14
24	G-1420-107010	BOLT, 3/8-16 X 1.0" HEX HD GR 8	14
25	G-1720-103510	SCR,#10-32X1.0 MACH HEX WSH HD	4
26	G-1250-1030N	FLATWASHER, #10 NARROW	4
27	G-1202-1035	STOPNUT, #10-32 ELASTIC	4
28	ATO-15	15 AMP 36V ATO FUSE	2
29	ATO-10	10 AMP 36V ATO FUSE	2
30	H-1204-20-033.5	TAPE, NEOPRENE FOAM SEALING	1
31	H-1204-20-055.0	TAPE, NEOPRENE FOAM SEALING	1
32	H-1204-20-033.5	TAPE, NEOPRENE FOAM SEALING	1
33	A-TT10-00314	WEATHERSTRIP, D SHAPE, 1/2x1/2	2
35	EC-1327-02	DISCONNECT, MALE BLUE 1/4	3
36	EC-1326-02	DISCONNECT, FEMALE BLU 1/4 F/I	4
37	Z-10924	ASY, TTR-8 CAB POWER WIRING	1
38	MIN-10	MINI AUTOMOTIVE BLADE FUSE, 10A	1

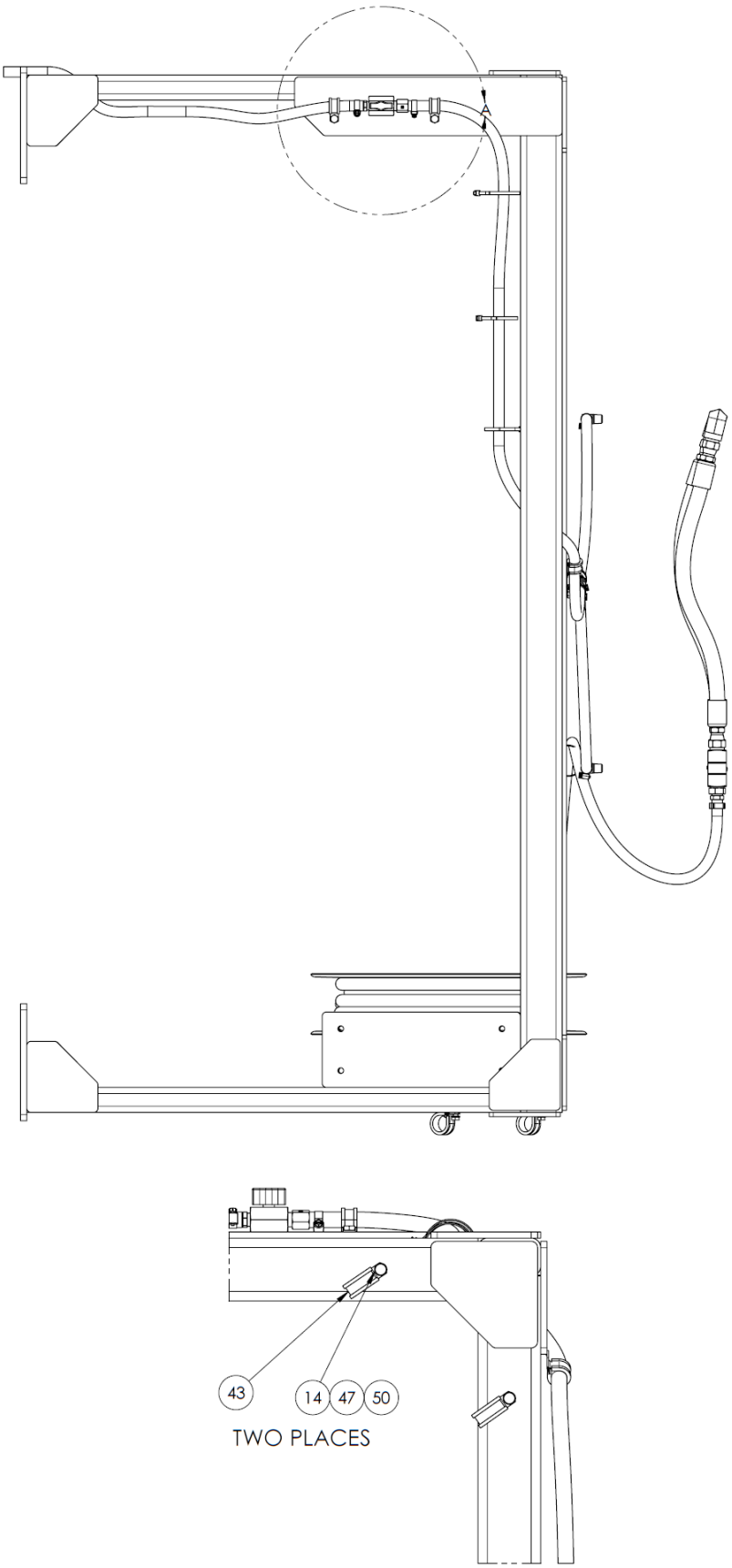
22.5.1 STANDARD HEATED CAB *(continued)*



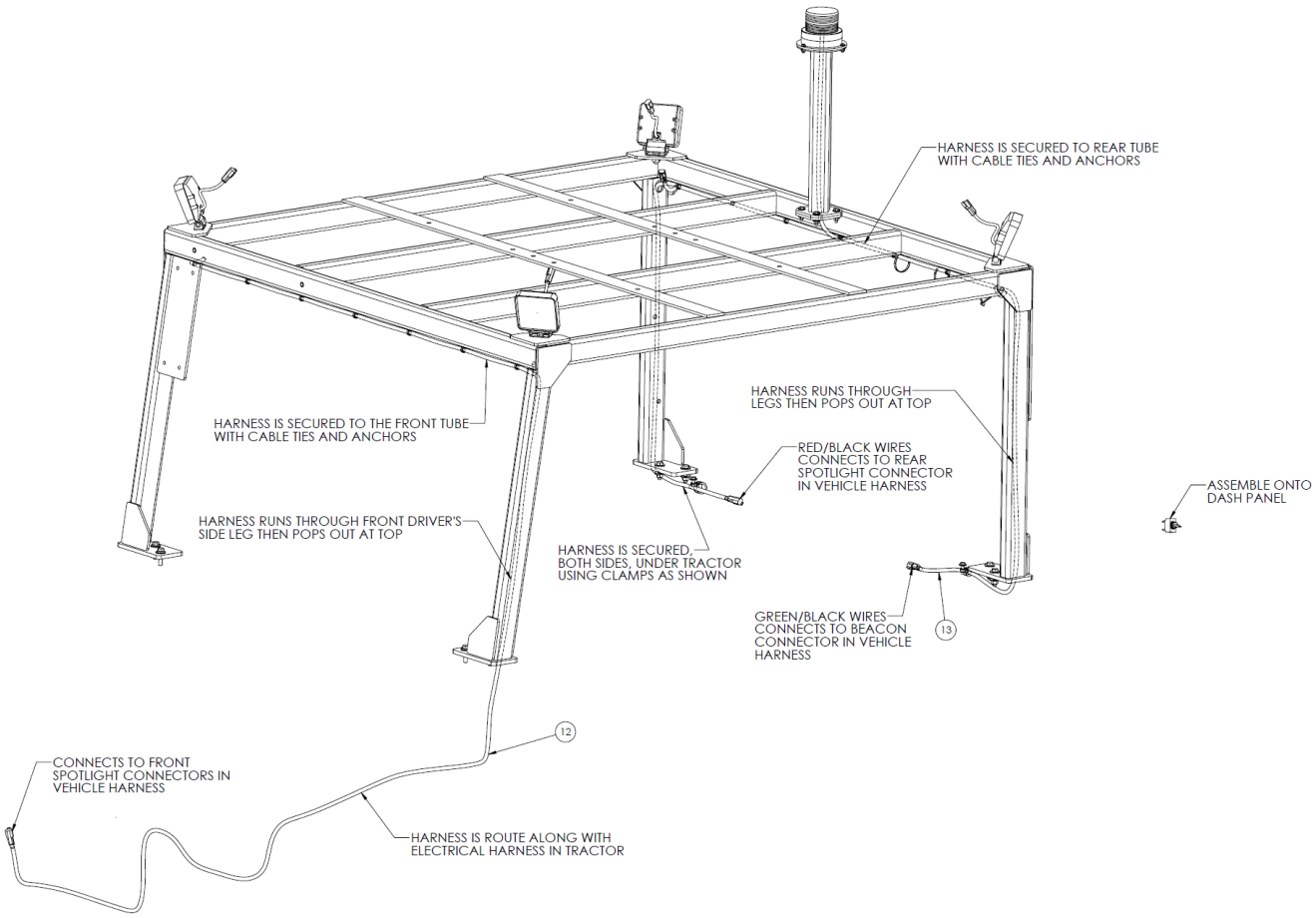
22.5.1 STANDARD HEATED CAB *(continued)*



22.5.1 STANDARD HEATED CAB *(continued)*



22.5.1 STANDARD HEATED CAB *(continued)*



22.5.1 STANDARD HEATED CAB *(continued)*

Parts List – Overhead Guard Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	05706B-104	ADAPTER, -06 BEAD X 1/4 M NPT	3
2	05706B-C04	ELBOW, 3/8 BARB, 1/4 NPT	3
3	3220X6X4	BUSHING, 3/8 NPT M X 1/4 NPT F	1
4	3220X8X6	BUSHING, 1/2 NPT M X 3/8 NPT F	1
5	3700X4	TEE, 1/4 NPT F	1
6	3700X8	TEE, 8 FNPT	2
7	3750X4	RUN TEE, 4 NPT	1
8	AE-OPT-0131-2	COUPLING, 3/8 BARB, 3/8 NPT M	1
9	AE-OPT-0131-3	ELBOW, 4 NPT M X 6 BARB	1
10	AE-OPT-0131-5	BALL VALVE, 1/4 MALE X FEM	1
11	AE-OPT-0133	50' HOSE REEL 3/8" HOSE	1
12	EC-3276	HARNESS, FRONT SPOT OH GUARD	1
13	EC-3277	HARNESS, REAR SPOT OH GUARD	1
14	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	3
15	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	7
16	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	4
17	G-1100-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 5	4
18	G-1150-103506	SCREW, #10-32 X 3/4" LG HEX HD MACHINE	3
19	G-1203-1035	JAMNUT, 10-32 ELASTIC	3
20	G-1250-1030N	FLATWASHER, #10 NARROW	6
21	G-1250-1050N	FLATWASHER, 1/4 NARROW	2
22	G-1250-1050W	FLATWASHER, 1/4 WIDE	13
23	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
24	G-1250-1070W	FLATWASHER, 3/8 WIDE	28
25	G-1250-1080N	FLATWASHER, 7/16 NARROW	1
26	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	3
27	G-1251-1070H	LOCKWASHER, 3/8 HEAVY SERIES	4
28	G-1420-107014	BOLT, 3/8-16 X 1.5" HEX HD GR 8	8
29	G-1420-107020	BOLT, 3/8-16 X 2.0" HEX HD GR 8	8
30	G-1440-1050-S	NUTSERT, 1/4-20 OPEN END	2
31	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	11
32	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
33	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	12
34	H-1426-23	CLAMP, HOSE, #6	9
35	H-1516-11	CLAMP, 2-EAR HOSE	2
36	H-3521-03	CLAMP, CUSHIONED LOOP 1/2"	2
37	H-3521-05	CLAMP, CUSHIONED LOOP 5/8"	9
38	H-3521-11	CLAMP, CUSHIONED LOOP 1"	4
39	H-4772	AIR TANK	2
40	H-4795	GAUGE, 200 PSI	1

22.5.1 STANDARD HEATED CAB *(continued)*

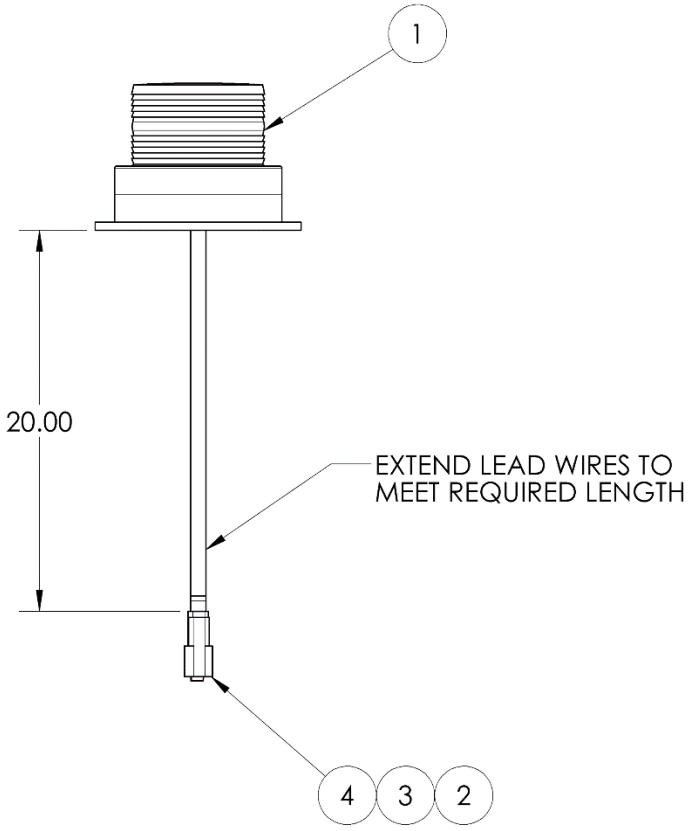
Parts List – Overhead Guard Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
41	N-2200-13-S	ELBOW, STREET	2
42	N-2203-10-B	NIPPLE, PIPE	2
43	N-2410-04	ELBOW, 90 DEG MALE	1
44	N-2457-05	INSERT, FEMALE BARB	1
45	N/A	CABLE TIE	1
46	NVSP-14-008-CA	SPOTLIGHT SWITCH DASH ILLUMINATED	1
47	NVSP-24-022-CA	CABLE TIE ANCHOR STD (Ø.375 X .27 THK)	14
48	TF-1080-06-023.00	HOSE, DRAIN	1
49	TF-1080-06-024.25	HOSE, DRAIN	1
50	TF-1080-06-030.00	HOSE FROM DRAIN VALVE	1
51	TF-1080-06-049.50	HOSE, DRAIN	1
52	TF-1080-06-056.00	HOSE, TANK TO HOSE REEL	1
53	TF-1080-06-92.0	HOSE, PUSH ON	1
54	TF-1278	ASSEMBLY, HOSE	2
55	Z-10837-00	WLD, BEACON POST, TALL (WP)	1
56	Z-10838	ASY, STROBE WITH CONNECTOR	1
57	Z-11093-00	OVERHEAD STRUCTURE ASY (WP)	1
58	Z-9825	ASY, HEADLIGHT W/CONNECTOR	4

**Note: all NPT fittings should be installed using Loctite 565 thread sealant or equivalent

22.5.1 STANDARD HEATED CAB *(continued)*



Parts List – Strobe with Connector

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

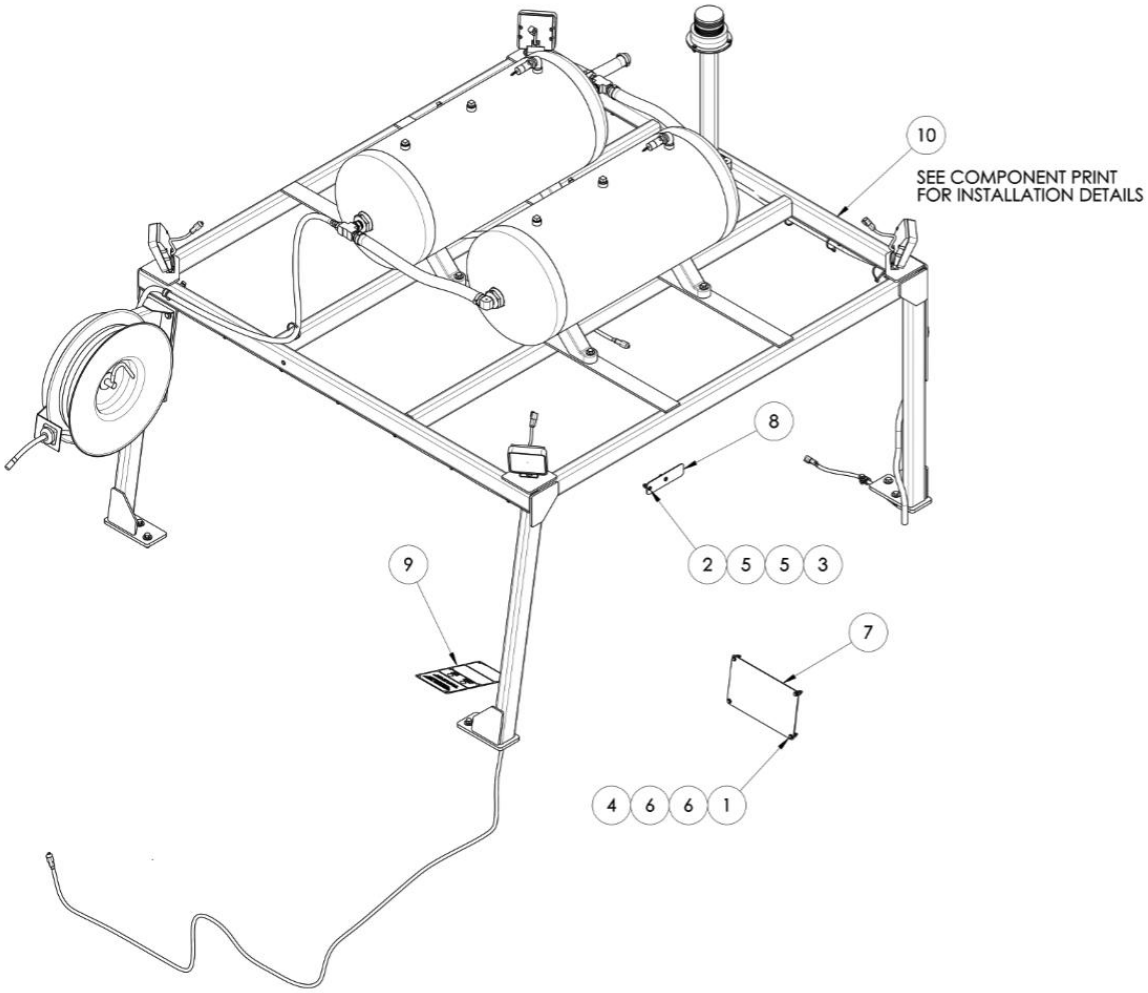
Item	Part Number	Description	Qty
	Z-10838	**ASY, STROBE WITH CONNECTOR;** *consist of:*	
1	AE-OPT-0007-LED	LED STROBE	1
2	0460-215-16141	DEUTSCH TERMINAL	2
3	W2P	DEUTSCH LOCK	1
4	DT04-2P	DEUTSCH CONNECTOR	1
5	EC-3299-18-RED	WIRE, TXL, 18 AWG, RED	10
6	EC-3299-18-BLK	WIRE, TXL, 18 AWG, BLACK	10

22.5.2 NO CAB OPTION

FEATURE NUMBER: TTR6TP-CAB
OPTION NUMBER: TTR6TP-CAB-1

DESCRIPTION: Contains overhead guard assembly, along with cover plates and other items required as substitutions for cab-specific parts.

COMPATIBILITY NOTES: No compatibility concerns

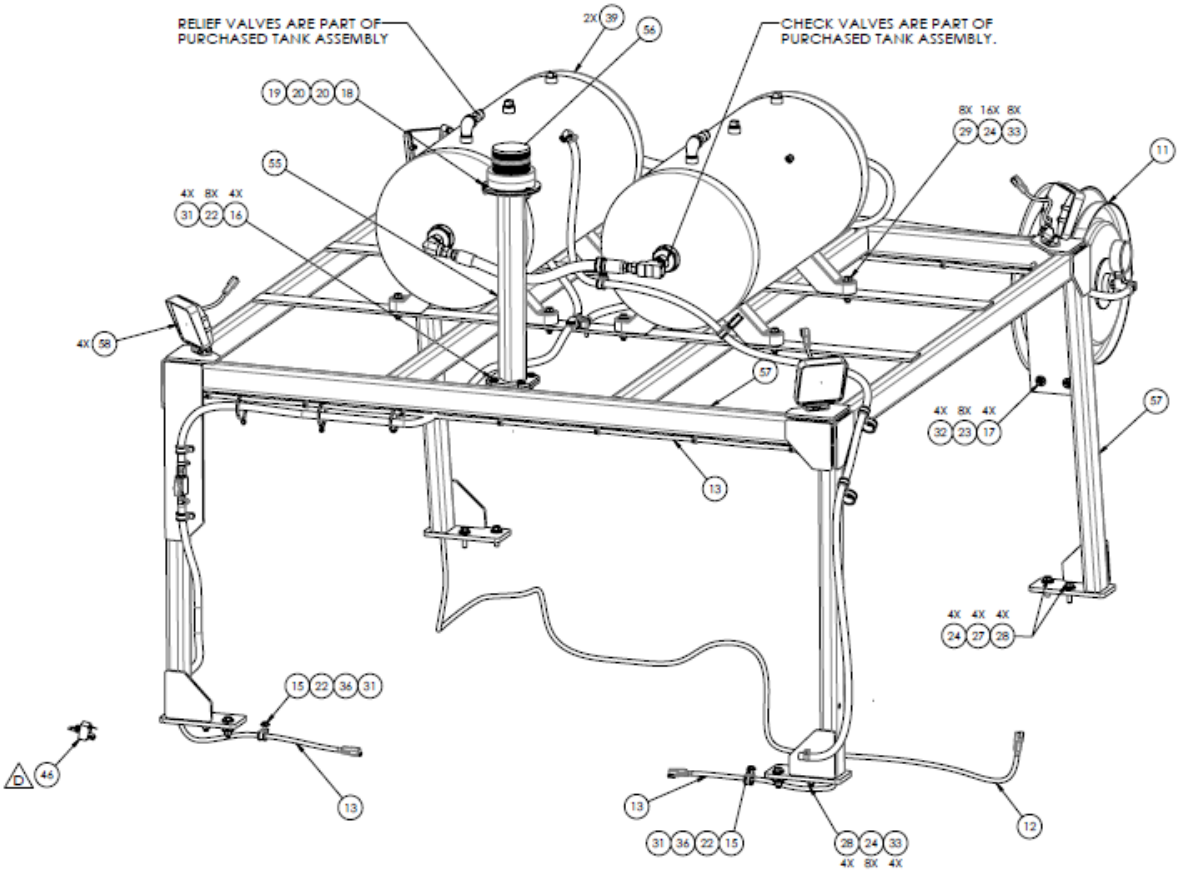


Parts List – No Cab Option

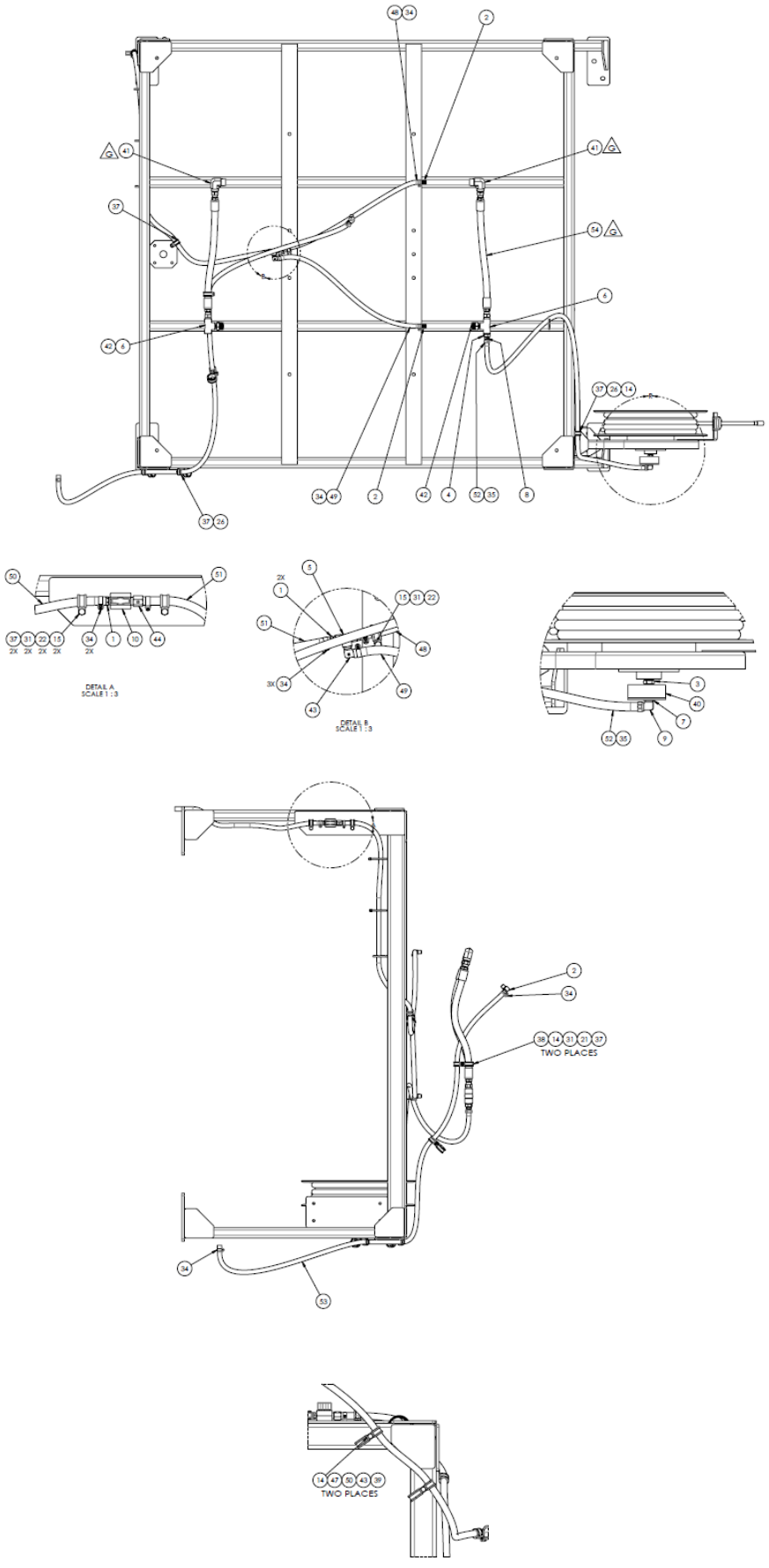
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	G-1150-103510	SCREW, #10-32 X 1.0" LG HEX HD MACHINE	4
2	G-1154-102210	SCREW, #8-32 X 1.00" LG. SST SOC BUTT. HD CAP	2
3	G-1202-1020	STOPNUT, #8-32 ELASTIC	2
4	G-1202-1035	STOPNUT, #10-32 ELASTIC	4
5	G-1250-1020N	FLATWASHER, #8 NARROW	4
6	G-1250-1030N	FLATWASHER, #10 NARROW	8
7	S-3378-00	HEATER CORE COVER PANEL (WP)	1
8	S-3858-00	COVER, CAB WIRING (WP)	1
9	V-2739	RH DASH PLACARD, NO OPT	1
10	N/A	TRANSIT PRO OHG ASSEMBLY	1

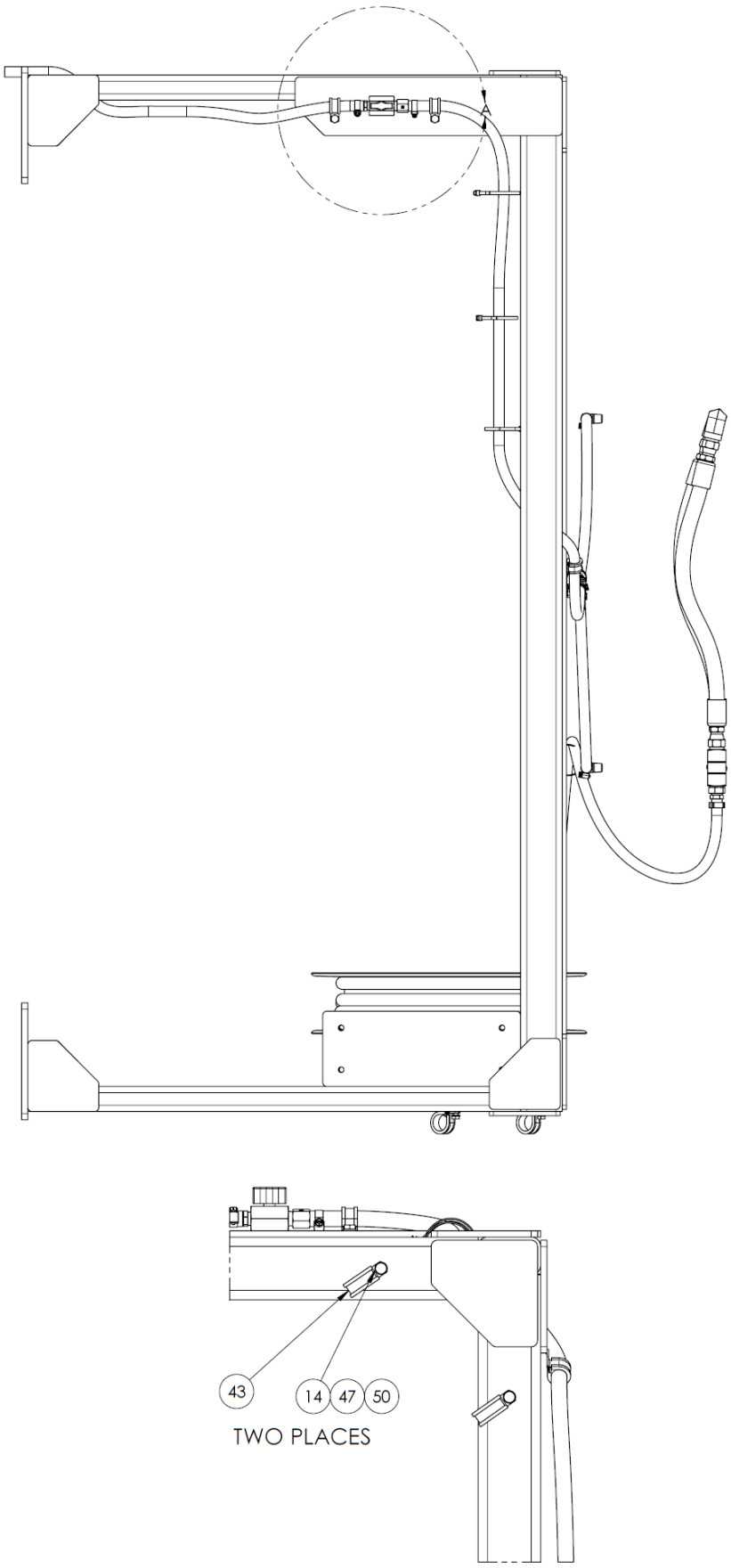
22.5.2 NO CAB OPTION *(continued)*



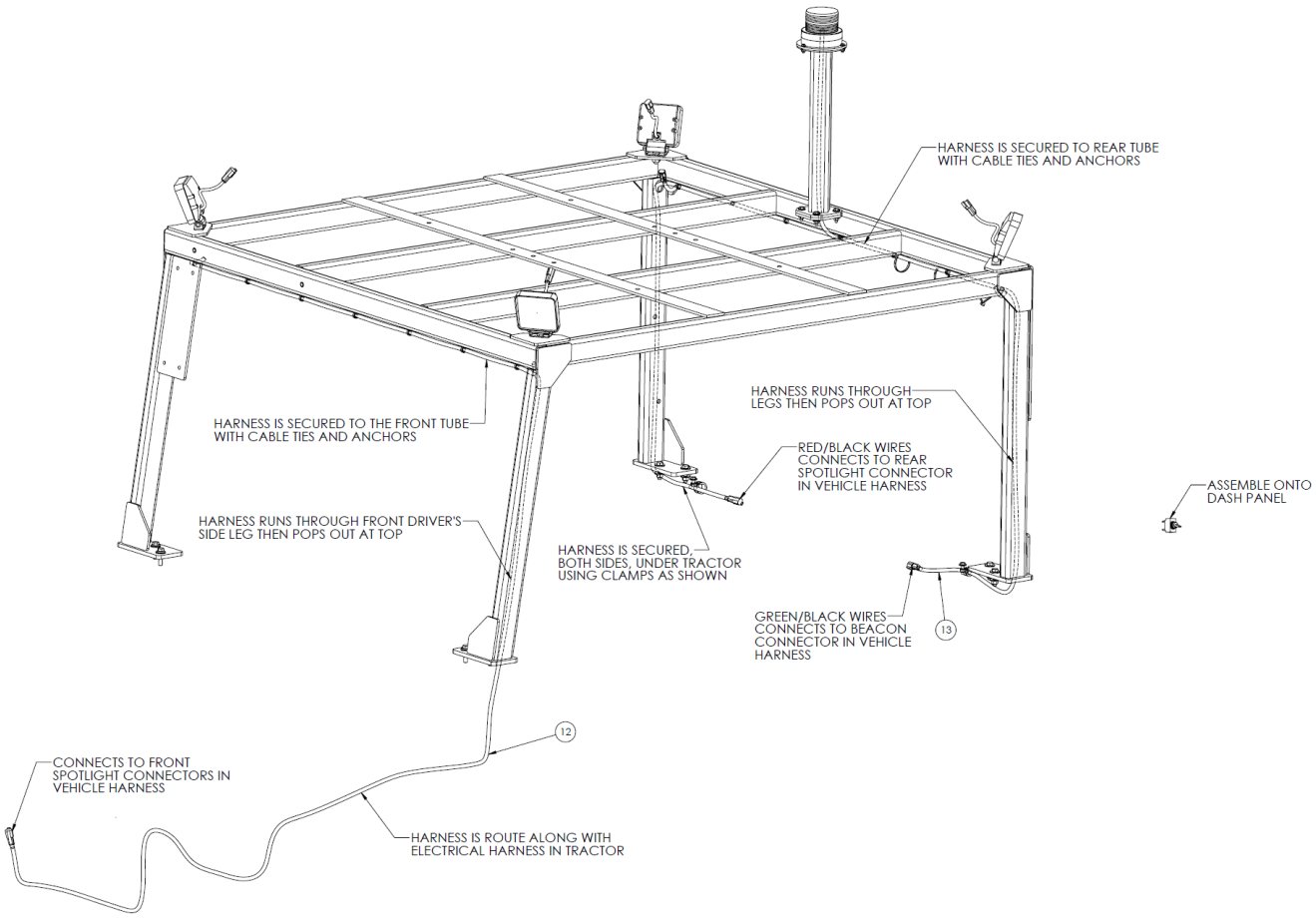
22.5.2 NO CAB OPTION *(continued)*



22.5.2 NO CAB OPTION *(continued)*



22.5.2 NO CAB OPTION *(continued)*



22.5.2 NO CAB OPTION *(continued)*

Parts List – Overhead Guard Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	05706B-104	ADAPTER, -06 BEAD X 1/4 M NPT	3
2	05706B-C04	ELBOW, 3/8 BARB, 1/4 NPT	3
3	3220X6X4	BUSHING, 3/8 NPT M X 1/4 NPT F	1
4	3220X8X6	BUSHING, 1/2 NPT M X 3/8 NPT F	1
5	3700X4	TEE, 1/4 NPT F	1
6	3700X8	TEE, 8 FNPT	2
7	3750X4	RUN TEE, 4 NPT	1
8	AE-OPT-0131-2	COUPLING, 3/8 BARB, 3/8 NPT M	1
9	AE-OPT-0131-3	ELBOW, 4 NPT M X 6 BARB	1
10	AE-OPT-0131-5	BALL VALVE, 1/4 MALE X FEM	1
11	AE-OPT-0133	50' HOSE REEL 3/8" HOSE	1
12	EC-3276	HARNESS, FRONT SPOT OH GUARD	1
13	EC-3277	HARNESS, REAR SPOT OH GUARD	1
14	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	3
15	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	7
16	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	4
17	G-1100-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 5	4
18	G-1150-103506	SCREW, #10-32 X 3/4" LG HEX HD MACHINE	3
19	G-1203-1035	JAMNUT, 10-32 ELASTIC	3
20	G-1250-1030N	FLATWASHER, #10 NARROW	6
21	G-1250-1050N	FLATWASHER, 1/4 NARROW	2
22	G-1250-1050W	FLATWASHER, 1/4 WIDE	13
23	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
24	G-1250-1070W	FLATWASHER, 3/8 WIDE	28
25	G-1250-1080N	FLATWASHER, 7/16 NARROW	1
26	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	3
27	G-1251-1070H	LOCKWASHER, 3/8 HEAVY SERIES	4
28	G-1420-107014	BOLT, 3/8-16 X 1.5" HEX HD GR 8	8
29	G-1420-107020	BOLT, 3/8-16 X 2.0" HEX HD GR 8	8
30	G-1440-1050-S	NUTSERT, 1/4-20 OPEN END	2
31	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	11
32	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
33	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	12
34	H-1426-23	CLAMP, HOSE, #6	9
35	H-1516-11	CLAMP, 2-EAR HOSE	2
36	H-3521-03	CLAMP, CUSHIONED LOOP 1/2"	2
37	H-3521-05	CLAMP, CUSHIONED LOOP 5/8"	9
38	H-3521-11	CLAMP, CUSHIONED LOOP 1"	4
39	H-4772	AIR TANK	2
40	H-4795	GAUGE, 200 PSI	1

22.5.2 NO CAB OPTION *(continued)*

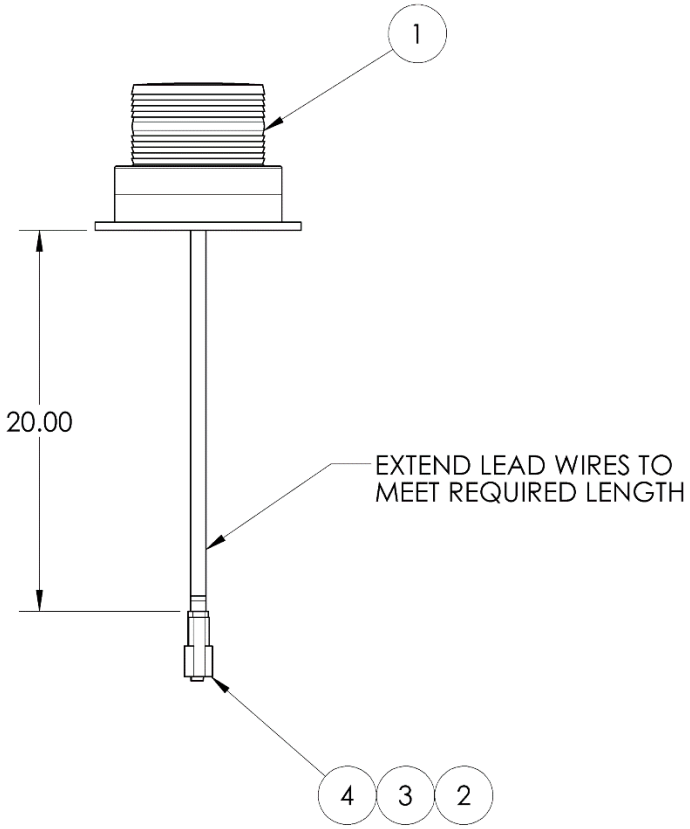
Parts List – Overhead Guard Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
41	N-2200-13-S	ELBOW, STREET	2
42	N-2203-10-B	NIPPLE, PIPE	2
43	N-2410-04	ELBOW, 90 DEG MALE	1
44	N-2457-05	INSERT, FEMALE BARB	1
45	N/A	CABLE TIE	1
46	NVSP-14-008-CA	SPOTLIGHT SWITCH DASH ILLUMINATED	1
47	NVSP-24-022-CA	CABLE TIE ANCHOR STD (Ø.375 X .27 THK)	14
48	TF-1080-06-023.00	HOSE, DRAIN	1
49	TF-1080-06-024.25	HOSE, DRAIN	1
50	TF-1080-06-030.00	HOSE FROM DRAIN VALVE	1
51	TF-1080-06-049.50	HOSE, DRAIN	1
52	TF-1080-06-056.00	HOSE, TANK TO HOSE REEL	1
53	TF-1080-06-92.0	HOSE, PUSH ON	1
54	TF-1278	ASSEMBLY, HOSE	2
55	Z-10837-00	WLD, BEACON POST, TALL (WP)	1
56	Z-10838	ASY, STROBE WITH CONNECTOR	1
57	Z-11093-00	OVERHEAD STRUCTURE ASY (WP)	1
58	Z-9825	ASY, HEADLIGHT W/CONNECTOR	4

**Note: all NPT fittings should be installed using Loctite 565 thread sealant or equivalent

22.5.2 NO CAB OPTION *(continued)*



Parts List – Strobe with Connector

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
	Z-10838	**ASY, STROBE WITH CONNECTOR;** *consist of:*	
1	AE-OPT-0007-LED	LED STROBE	1
2	0460-215-16141	DEUTSCH TERMINAL	2
3	W2P	DEUTSCH LOCK	1
4	DT04-2P	DEUTSCH CONNECTOR	1
5	EC-3299-18-RED	WIRE, TXL, 18 AWG, RED	10
6	EC-3299-18-BLK	WIRE, TXL, 18 AWG, BLACK	10

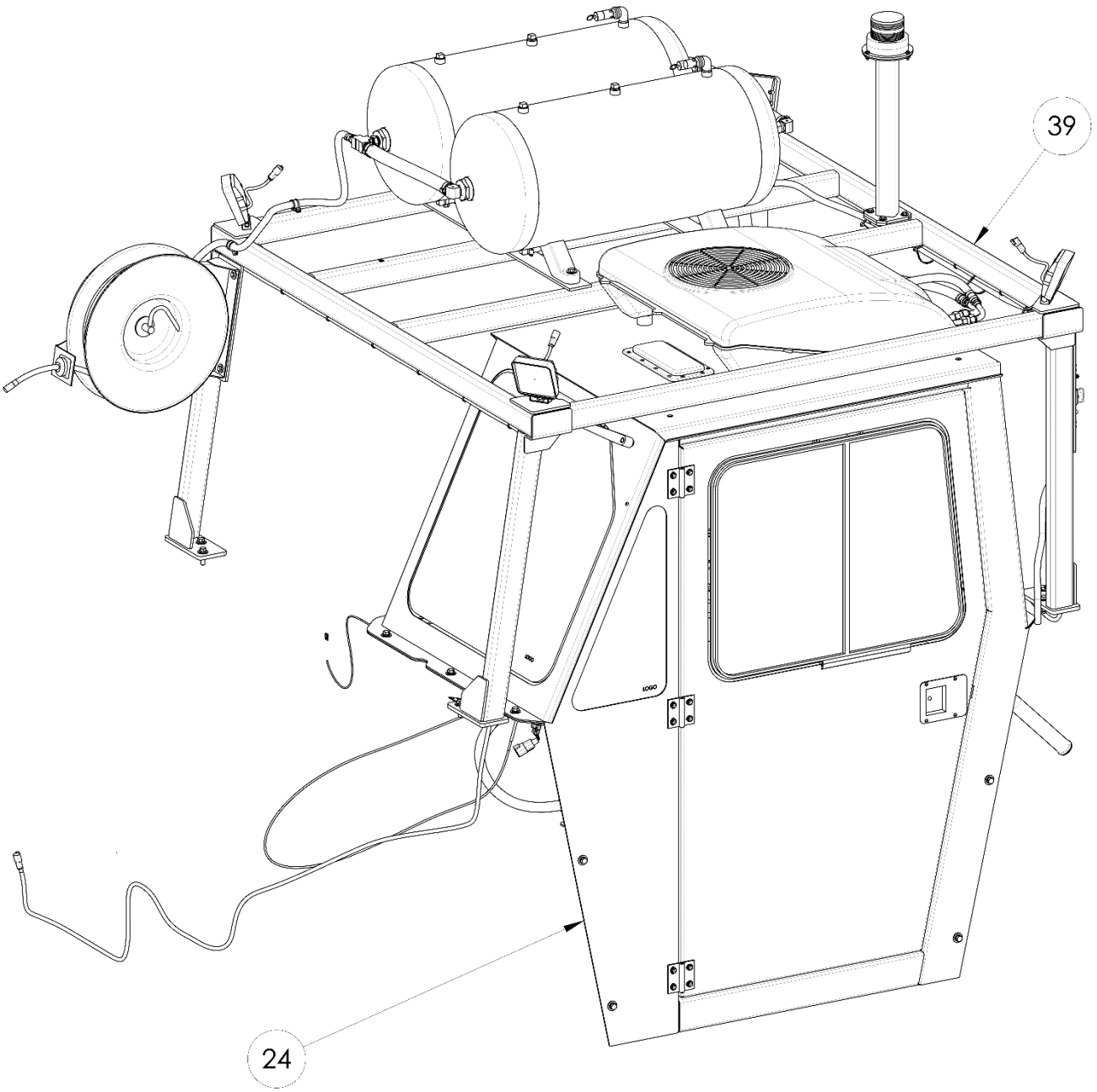
22.5.3 HEATED CAB WITH A/C OPTION

FEATURE NUMBER: TTR6TP-CAB
OPTION NUMBER: TTR6TP-CAB-2

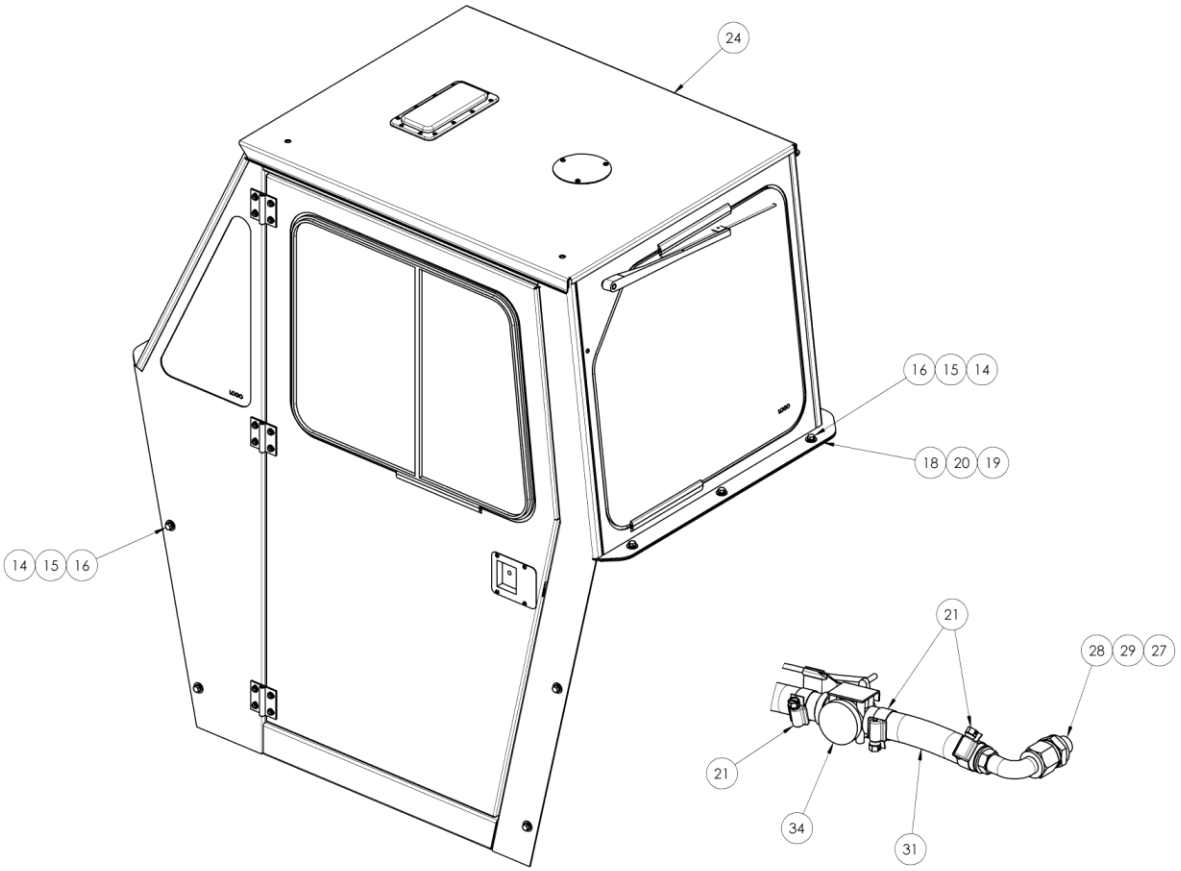
DESCRIPTION: Operator cab with heater, defrost fan, front and rear wipers, dome light, and a rooftop mounted air conditioning system.

Note: If foam tape is provided with cab, H-1204-20 is not required
Note: Trim foam tape to fit after applying to all mounting flanges.

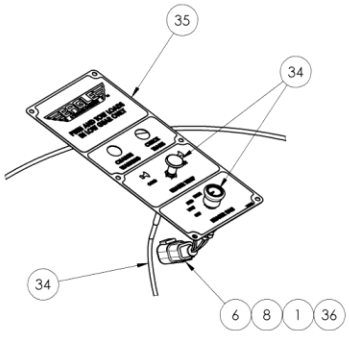
COMPATIBILITY NOTES: No compatibility concerns



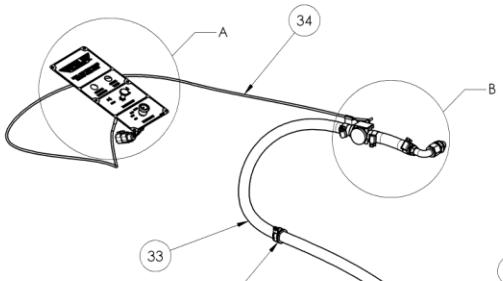
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

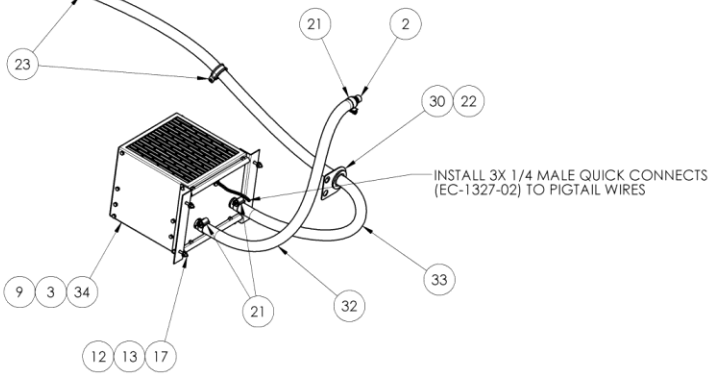


DETAIL B



DETAIL A



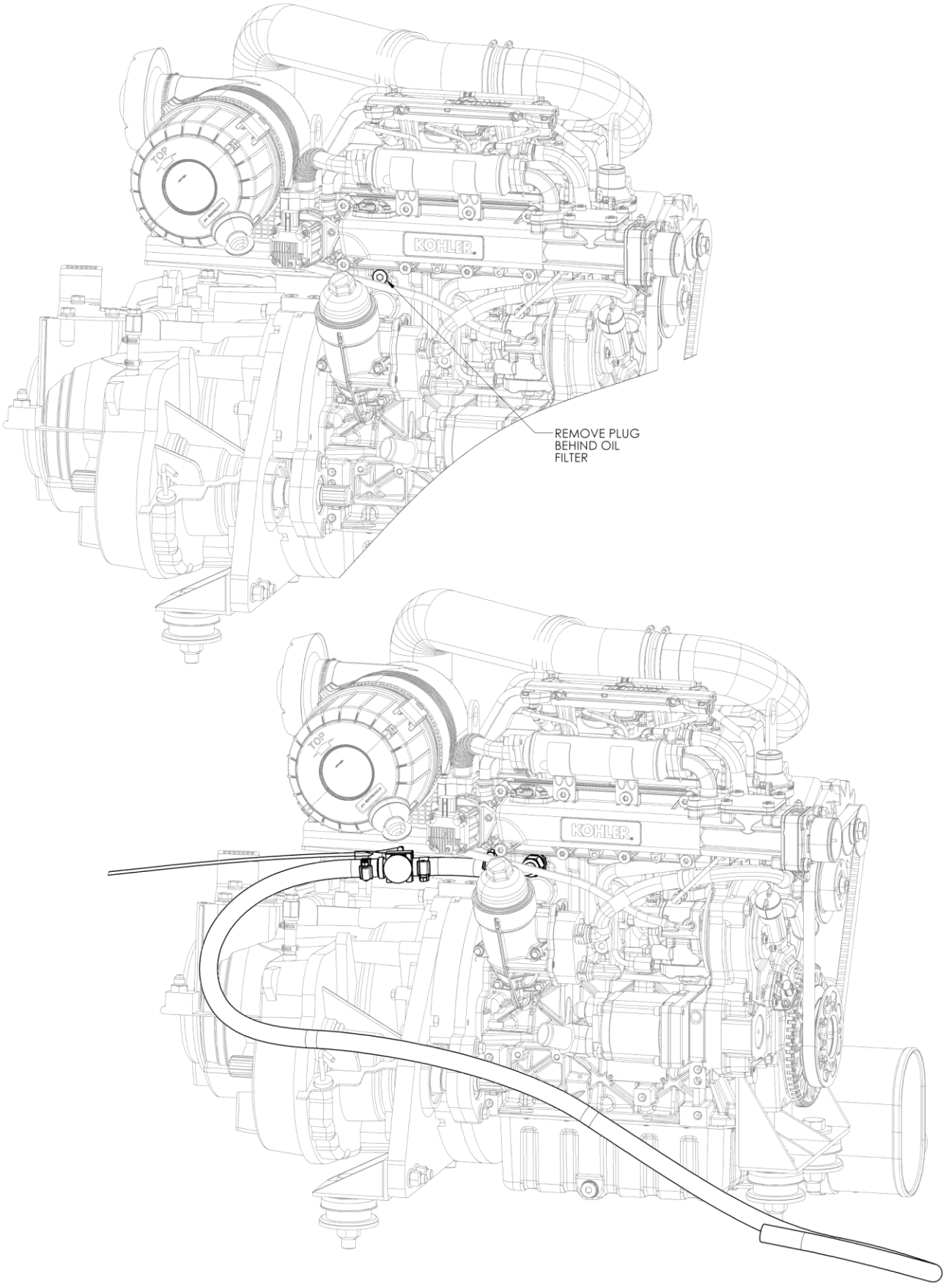


12 AWG

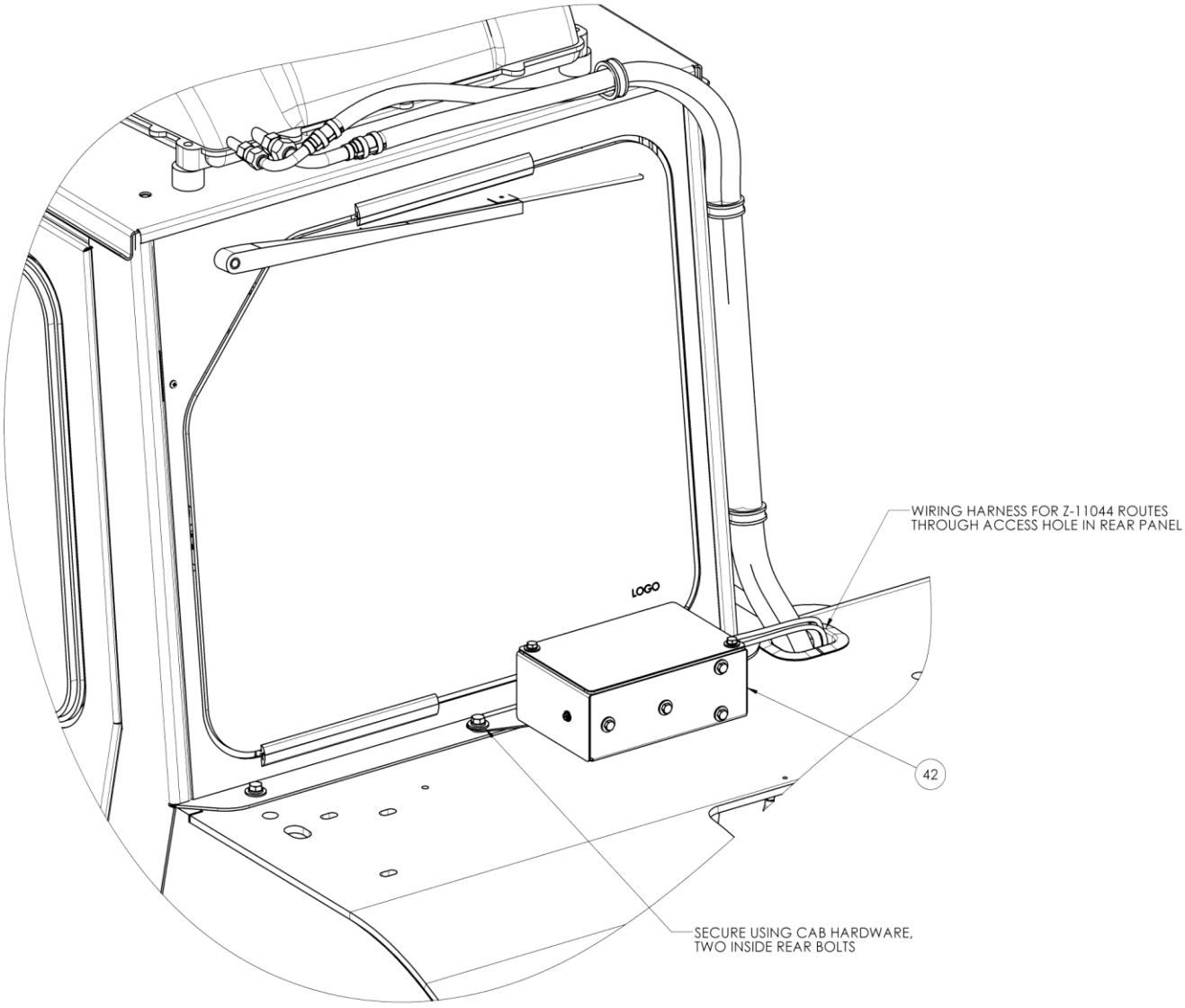
HEATER SWITCH 1/4 F QUICK CONN		HEATER CONNECTOR DTP04-4P	
COMMON	C	1	COMMON
LOW	L	2	LOW
MEDIUM	M	3	MEDIUM
HIGH	H	4	HIGH
(NOT USED)	B		

HEATER FAN SWITCH
WIRING SCHEMATIC

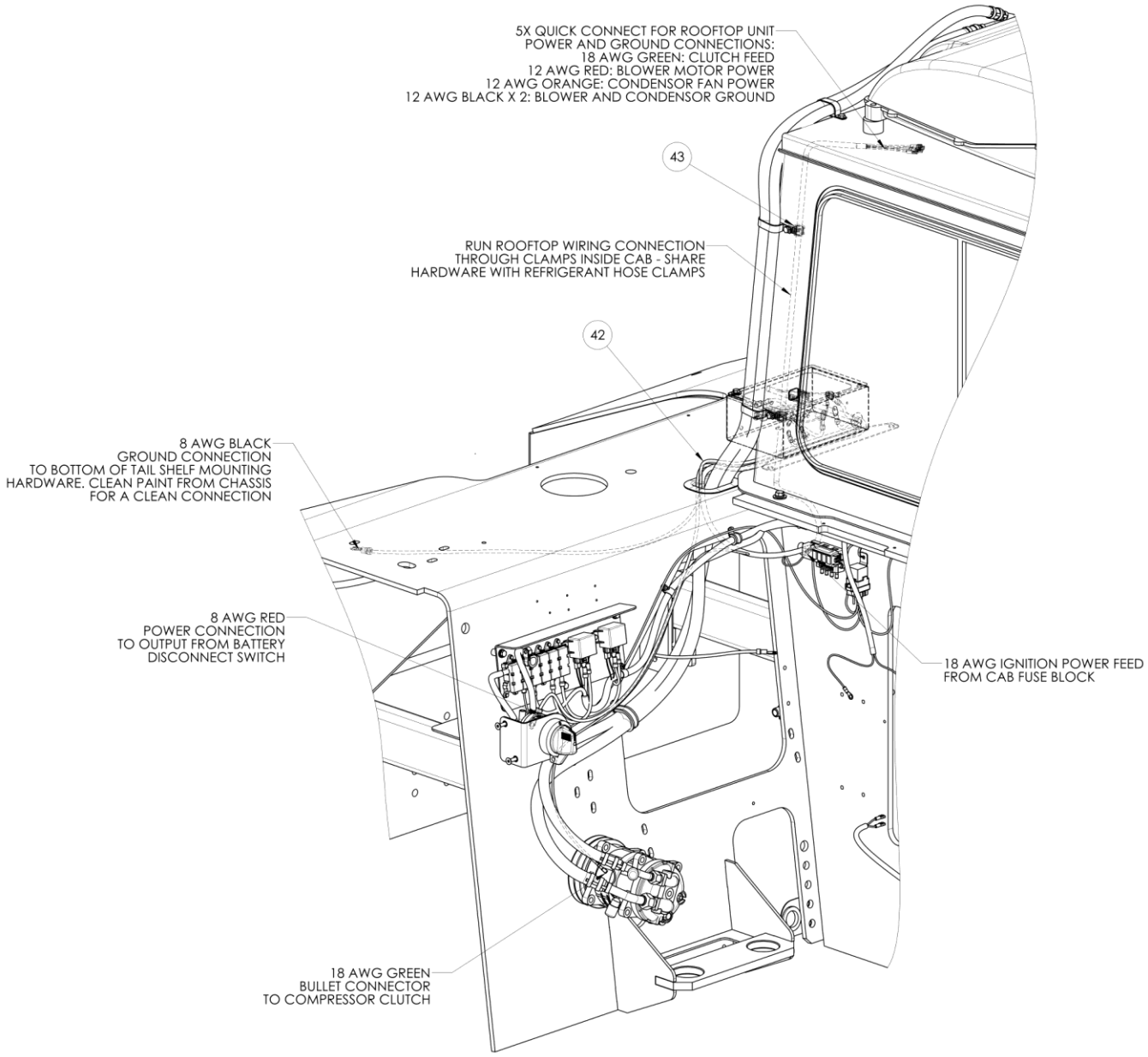
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



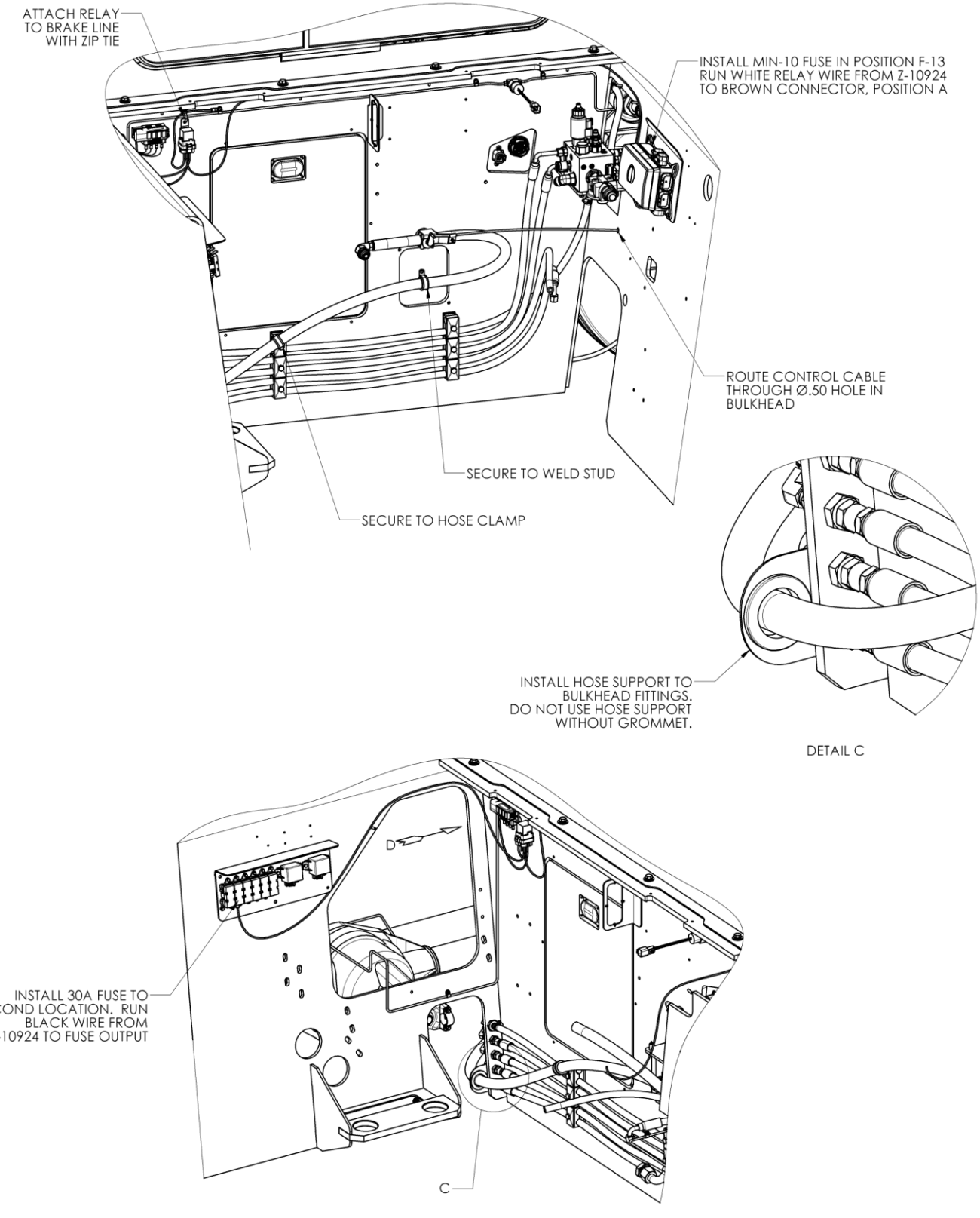
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



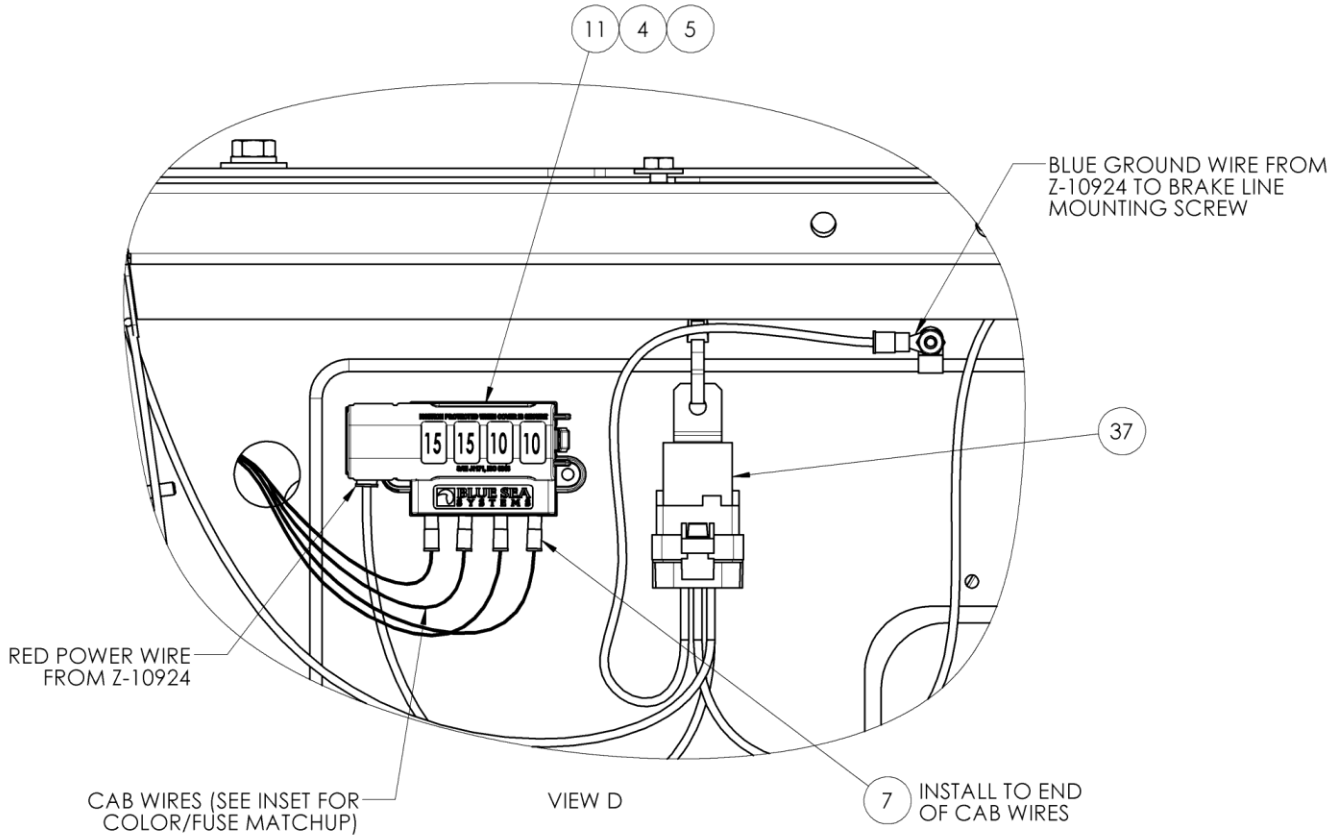
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

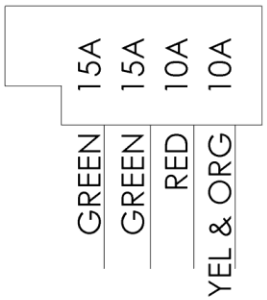


22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



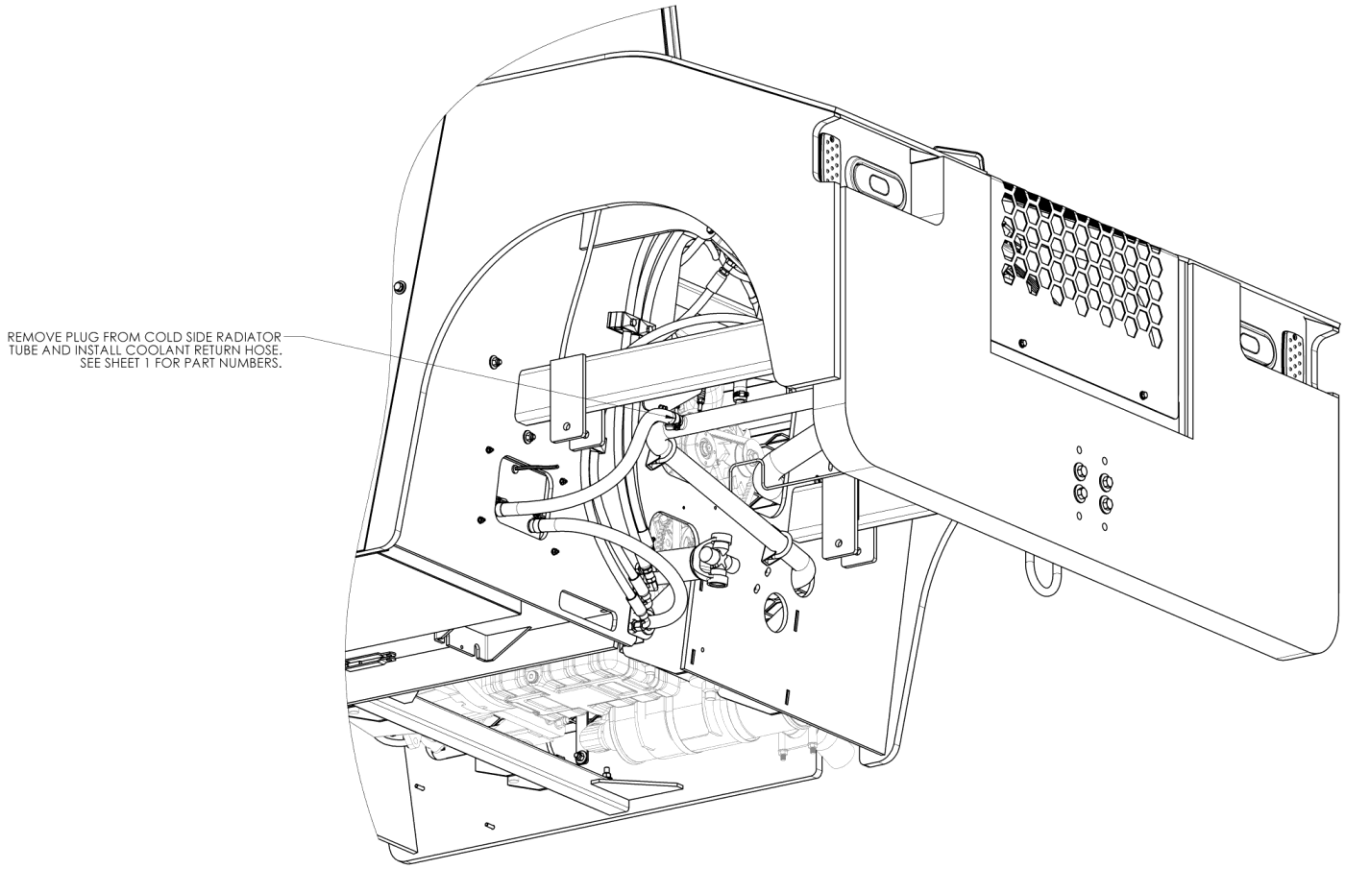


CAB FUSE HOLDER SCHEMATIC

WIRES SHOWN ARE FROM CAB HARNESS.

GROUND BLACK WIRE TO CHASSIS

22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



NOTE: After assembly to chassis, charge AC system with approx. 27.0 oz of R-134A refrigerant and 3 OZ of PAG-100 oil.

CAB HEATER OPERATING INSTRUCTIONS:
- Set heater temperature using push/pull cable control
- Set heater fan speed using dial

CAB AC OPERATING INSTRUCTIONS:
- Set the desired temperature using the dial
- Set the fan speed using the dial

NOTE: if left idling for extended periods, the AC system may turn off to conserve battery level.

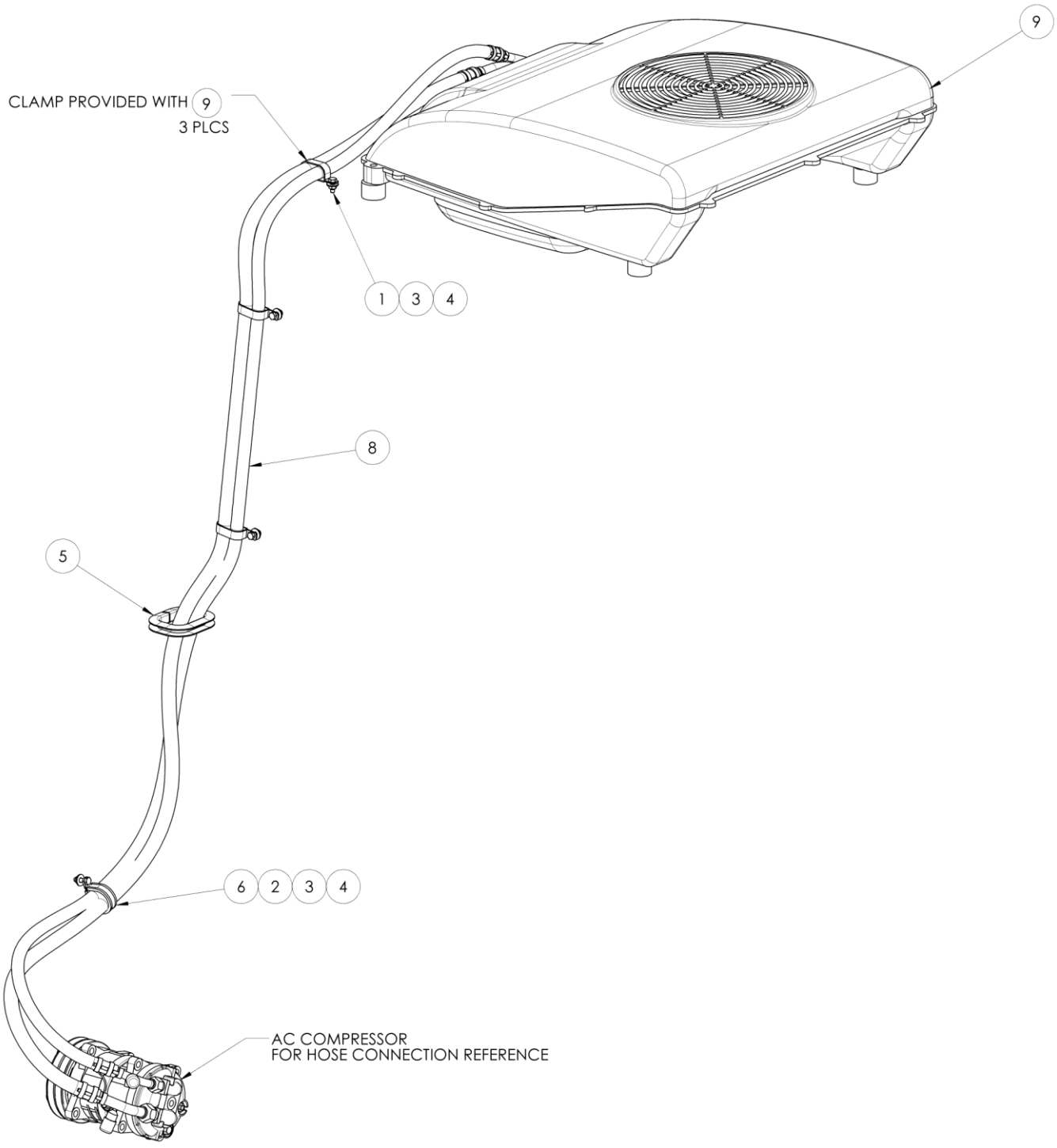
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

Parts List – Heated Cab with AC Option

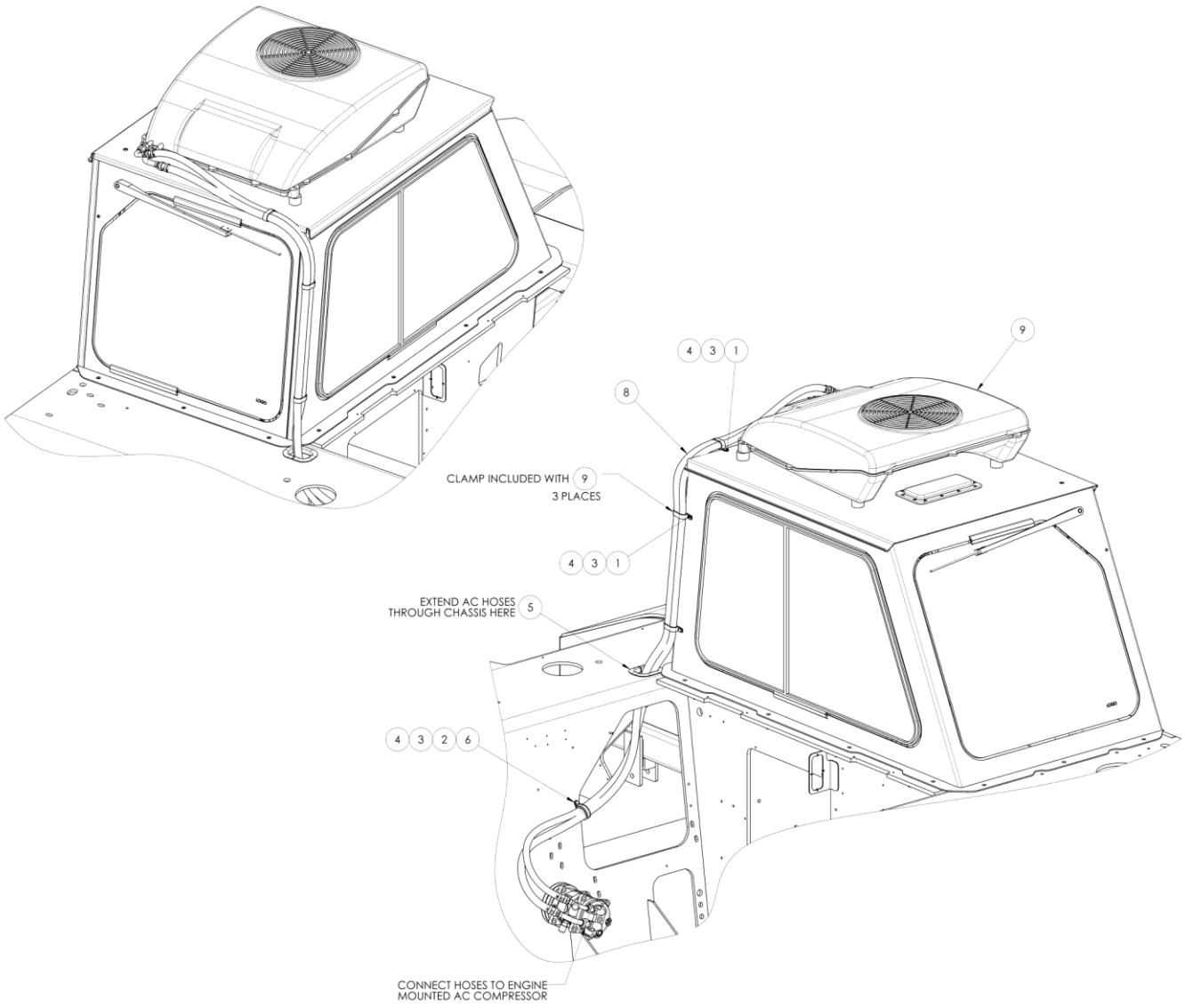
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	0460-215-16141	DEUTSCH TERMINAL	4
2	05710B-106	HOSE BARB - 6 NPT M - 10 HOSE BARB	1
3	A-TT10-00314	WEATHERSTRIP, D SHAPE, 1/2x1/2	2
4	ATO-10	10 AMP 36V ATO FUSE	2
5	ATO-15	15 AMP 36V ATO FUSE	2
6	DTP04-4P	DEUTSCH CONNECTOR	1
7	EC-1179-10	FORK TERMINAL - 8 FORK TERM - 16-14 AWG	4
8	EC-1326-02	DISCONNECT, FEMALE BLU 1/4 F/I	4
9	EC-1327-02	DISCONNECT, MALE BLUE 1/4	3
10	EC-3146-02	30A FUSE, MIDI/AMI	1
11	EC-3275	FUSE HOLDER, 4 PLACE	1
12	G-1202-1035	STOPNUT, #10-32 ELASTIC	4
13	G-1250-1030N	FLATWASHER, #10 NARROW	4
14	G-1250-1070W	FLATWASHER, 3/8 WIDE	14
15	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	14
16	G-1420-107010	BOLT, 3/8-16 X 1.0" HEX HD GR 8	14
17	G-1720-103510	SCR, #10-32X1.0 MACH HEX WSH HD	4
18	H-1204-20-033.5	TAPE, NEOPRENE FOAM SEALING	1
19	H-1204-20-033.5	TAPE, NEOPRENE FOAM SEALING	1
20	H-1204-20-055.0	TAPE, NEOPRENE FOAM SEALING	1
21	H-1426-04	CLAMP, HOSE, SAE -12	6
22	H-1901-28	GROMMET	1
23	H-3521-11	CLAMP, CUSHIONED LOOP 1"	2
24	H-4656	TTR-8 CAB - VENDOR ASSY	1
26	MIN-10	MINI AUTOMOTIVE BLADE FUSE, 10A	1
27	N-2069-05-S	ELBOW, SWIVEL, -10	1
28	N-3125	ADAPTER, M16 TO 5/8 JIC M	1
29	N-3126-16	WASHER, BONDED SEAL, 16MM	1
30	S-3857-00	HOSE SUPPORT (WP)	1
31	TF-1260-10-005.0	HOSE, HEATER, -10	1
32	TF-1260-10-25.0	HOSE, HEATER, -10	1
33	TF-1260-10-77.5	HOSE, HEATER, -10	1
34	TT00-14-001-CA	HEATER CORE	1
35	V-2825	RH DASH PLACARD, CAB OPT	1
36	W4P	DEUTSCH LOCK	1
37	Z-10924	ASY, TTR-8 CAB POWER WIRING	1
38	N/A	ASY, AC ROOFTOP UNIT AND HOSES	1
39	N/A	ASY, OVERHEAD GUARD, TRANSIT	1
40	N/A	ASY, AC COOLING SYSTEM MODS	1
41	N/A	ASY, AC ENGINE SYSTEM MODS	1
42	N/A	ASY, AC ELECTRICAL SYSTEM	1
43	H-3521-03	CLAMP, CUSHIONED LOOP 1/2”	2

22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



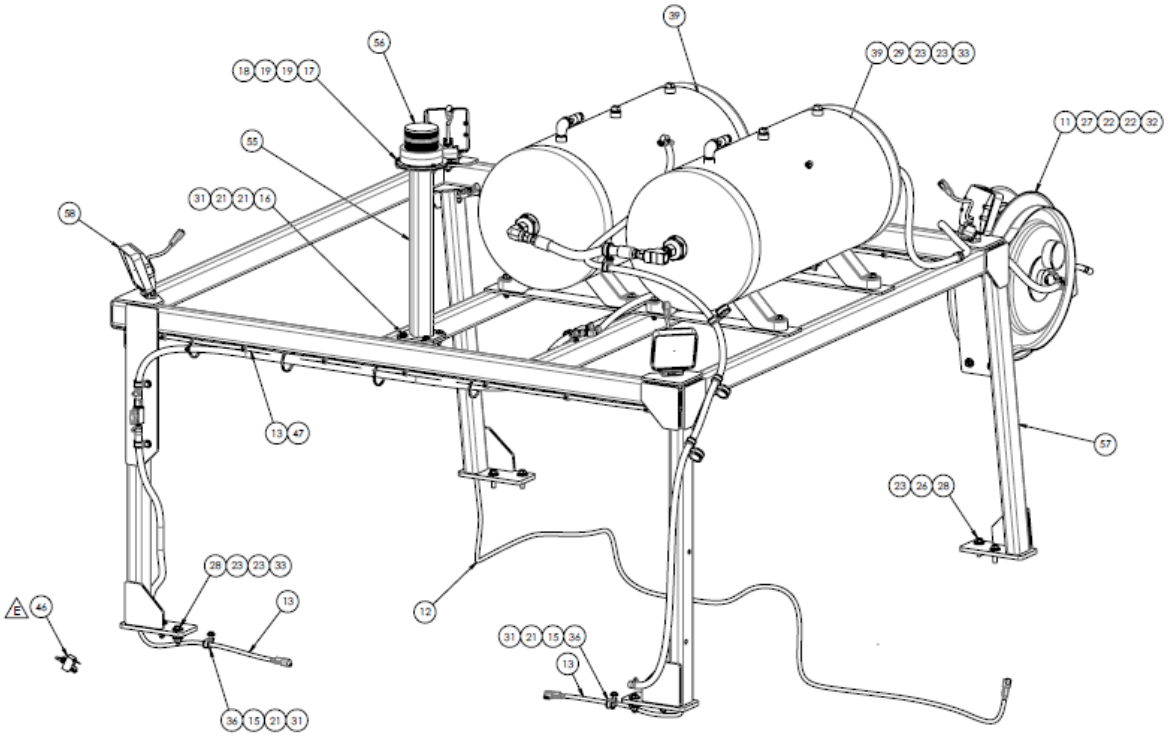
NOTE: See INS-2618 for XL00-14-031-SA installation instructions

Parts List – AC Module

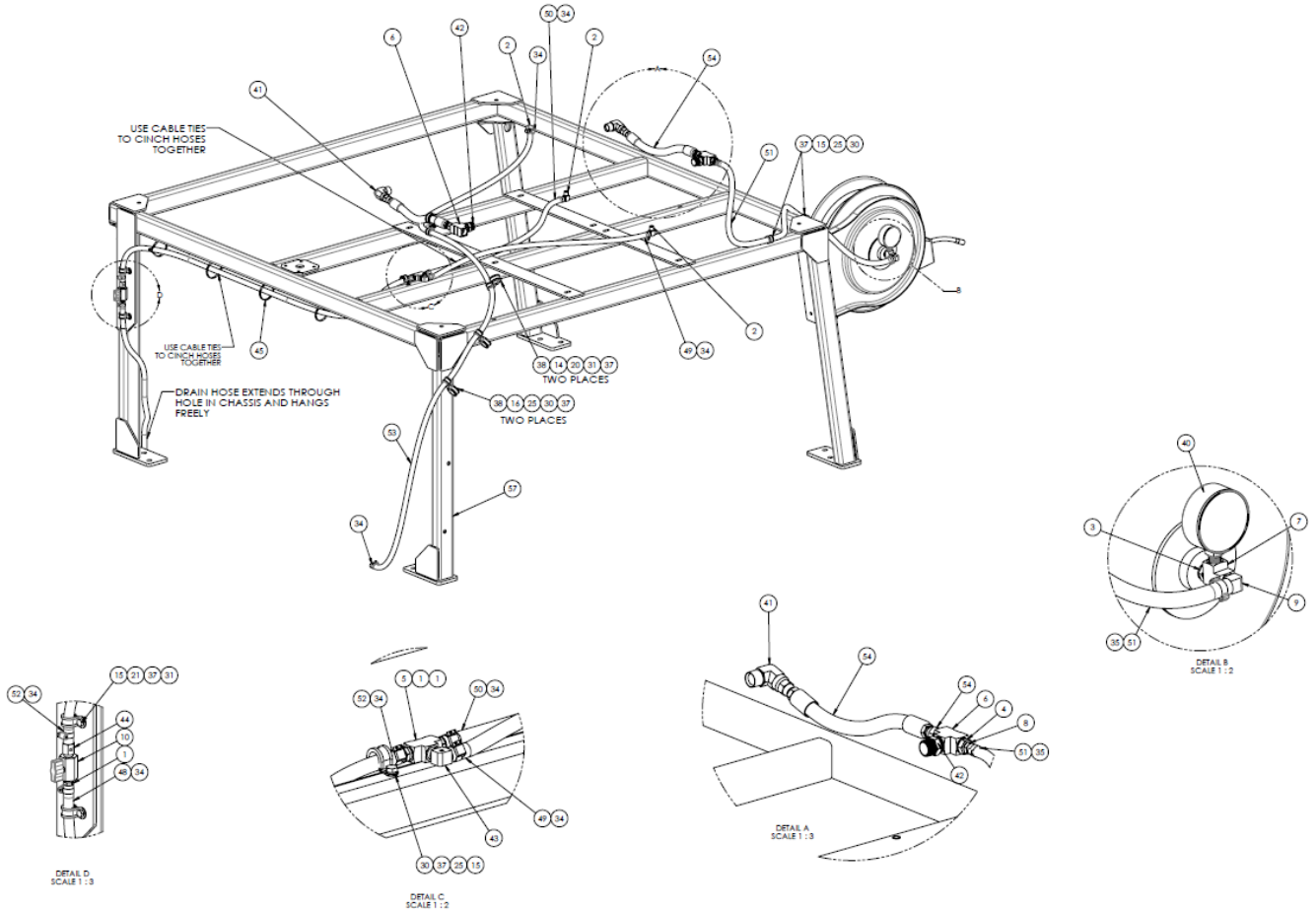
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	3
2	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	1
3	G-1250-1050W	FLATWASHER, 1/4 WIDE	4
4	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	4
5	H-2990	TRIM, VINYL EDGE	9.75"
6	H-3521-19	CLAMP, CUSHIONED LOOP 1 1/2"	1
8	K-5436	KIT, AC HOSES	1
9	XL00-14-031-SA	RED DOT ROOFTOP AC UNIT	1

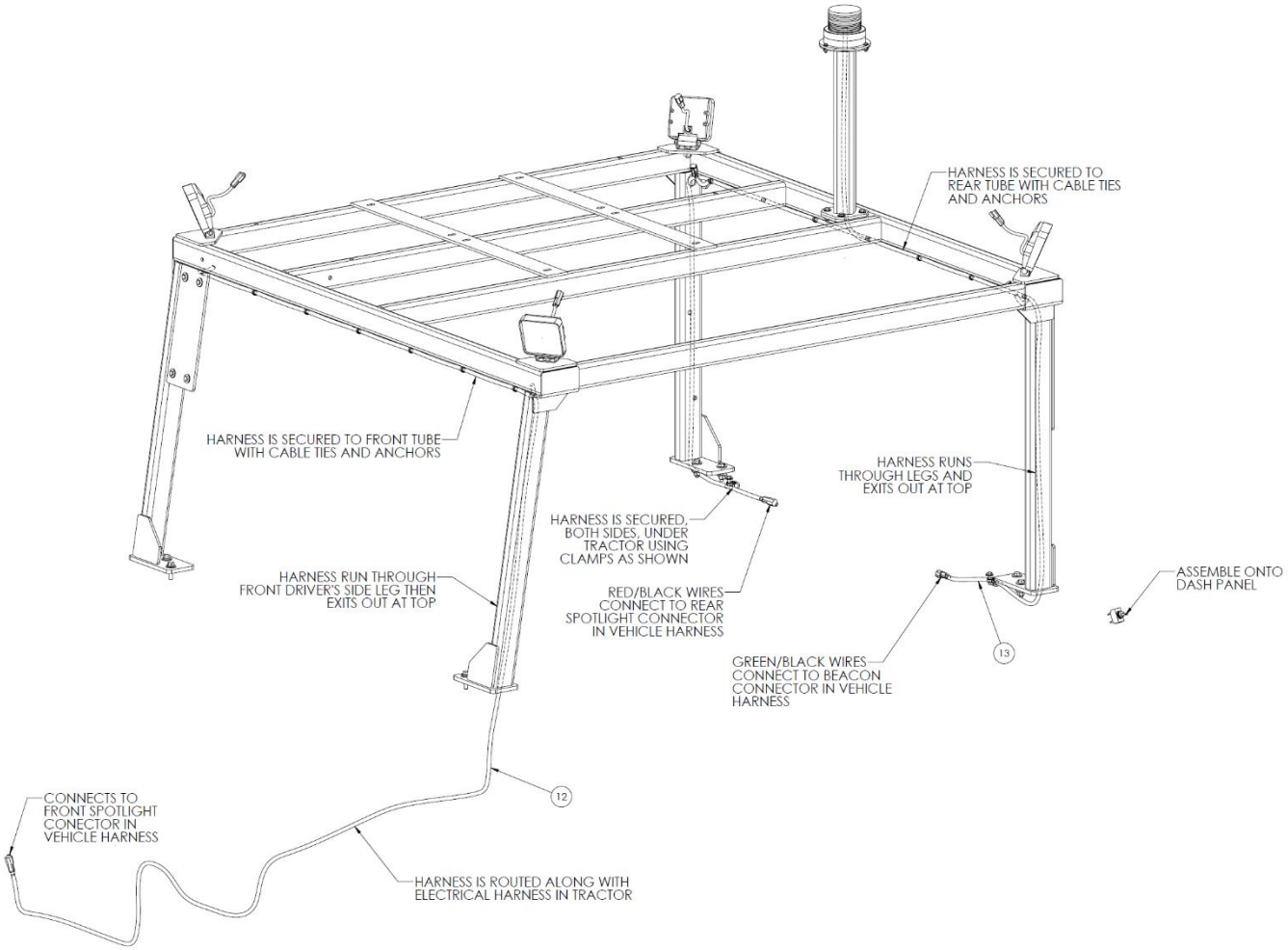
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

NOTE: Install all NPT fittings with Loctite 565 or equivalent

Parts List – Overhead Guard Assembly

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	05706B-104	ADAPTER, -06 BEAD X 1/4 M NPT	3
2	05706B-C04	ELBOW, 3/8 BARB, 1/4 NPT	3
3	3220X6X4	BUSHING, 3/8 NPT M X 1/4 NPT F	1
4	3220X8X6	BUSHING, 1/2 NPT M X 3/8 NPT F	1
5	3700X4	TEE, 1/4 NPT F	1
6	3700X8	TEE, 8 FNPT	2
7	3750X4	RUN TEE, 4 NPT	1
8	AE-OPT-0131-2	COUPLING, 3/8 BARB, 3/8 NPT M	1
9	AE-OPT-0131-3	ELBOW, 4 NPT M X 6 BARB	1
10	AE-OPT-0131-5	BALL VALVE, 1/4 MALE X FEM	1
11	AE-OPT-0133	50' HOSE REEL 3/8" HOSE	1
12	EC-3276	HARNESS, FRONT SPOT OH GUARD	1
13	EC-3277	HARNESS, REAR SPOT OH GUARD	1
14	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	2
15	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	7
16	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	6
17	G-1150-103506	SCREW, #10-32 X 3/4" LG HEX HD MACHINE	3
18	G-1203-1035	JAMNUT, 10-32 ELASTIC	3
19	G-1250-1030N	FLATWASHER, #10 NARROW	6
20	G-1250-1050N	FLATWASHER, 1/4 NARROW	2
21	G-1250-1050W	FLATWASHER, 1/4 WIDE	14
22	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
23	G-1250-1070W	FLATWASHER, 3/8 WIDE	28
24	G-1250-1080N	FLATWASHER, 7/16 NARROW	1
25	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	5
26	G-1251-1070H	LOCKWASHER, 3/8 HEAVY SERIES	4
27	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	4
28	G-1420-107014	BOLT, 3/8-16 X 1.5" HEX HD GR 8	8
29	G-1420-107020	BOLT, 3/8-16 X 2.0" HEX HD GR 8	8
30	G-1440-1050-S	NUTSERT, 1/4-20 OPEN END	7
31	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	10
32	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
33	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	12
34	H-1426-23	CLAMP, HOSE, #6	9
35	H-1516-11	CLAMP, 2-EAR HOSE	2
36	H-3521-03	CLAMP, CUSHIONED LOOP 1/2"	2
37	H-3521-05	CLAMP, CUSHIONED LOOP 5/8"	9
38	H-3521-11	CLAMP, CUSHIONED LOOP 1"	4
39	H-4772	AIR TANK	2
40	H-4795	GAUGE, 200 PSI	1

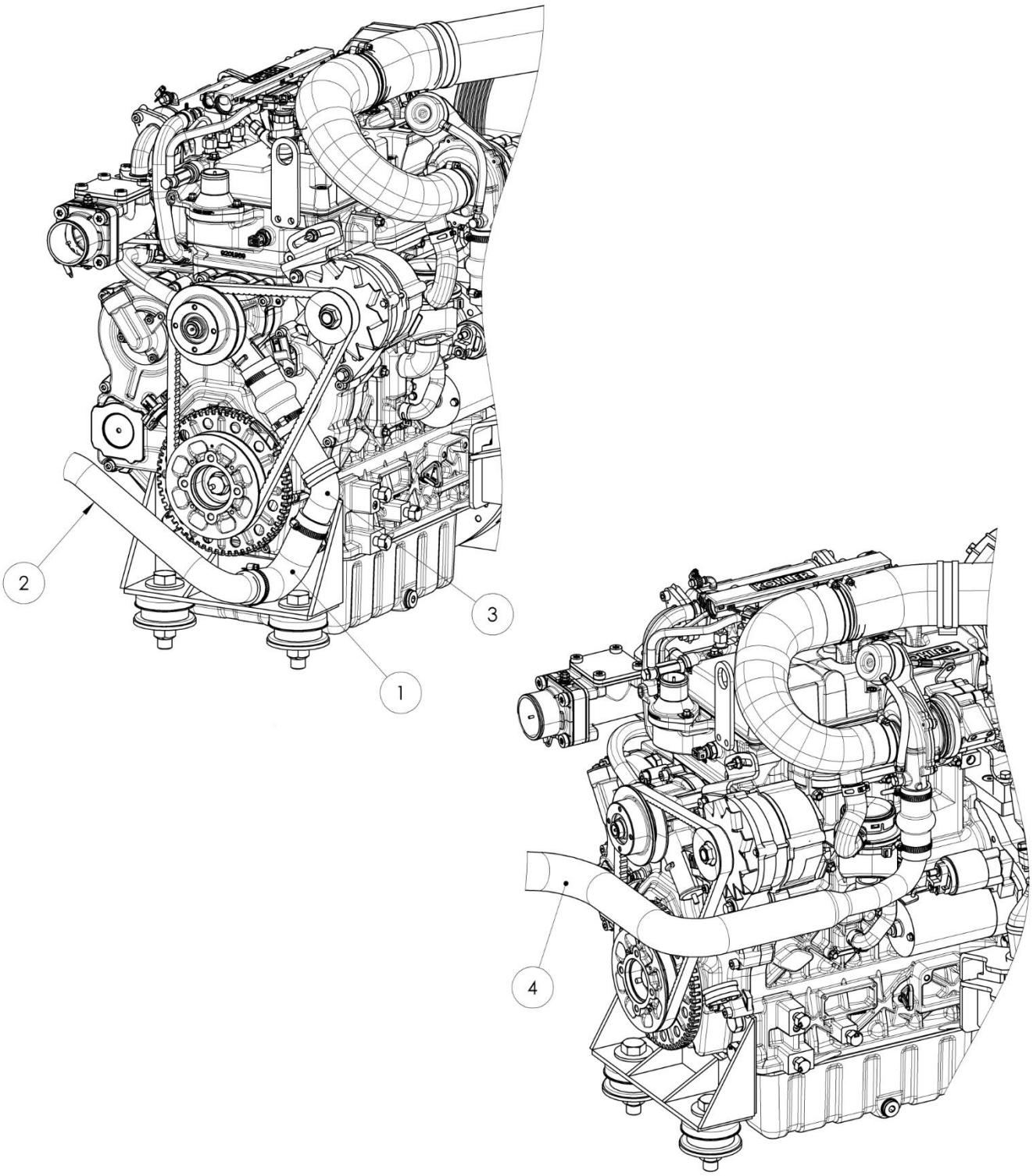
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

Parts List – Overhead Guard Assembly

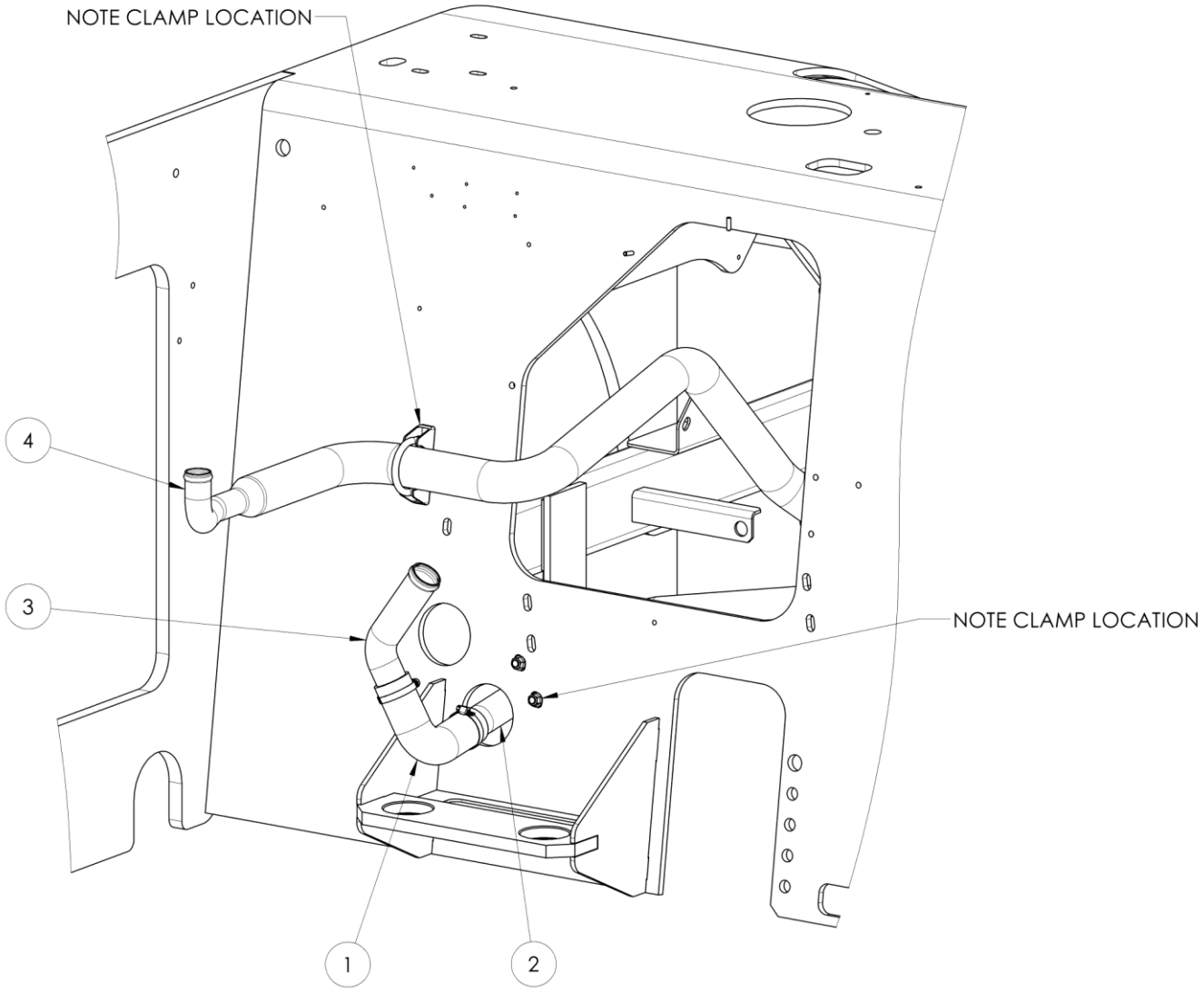
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
41	N-2200-13-S	ELBOW, STREET	2
42	N-2203-10-B	NIPPLE, PIPE	2
43	N-2410-04	ELBOW, 90 DEG MALE	1
44	N-2457-05	INSERT, FEMALE BARB	1
45	N/A	CABLE TIE	1
46	NVSP-14-008-CA	SPOTLIGHT SWITCH DASH ILLUMINATED	1
47	NVSP-24-022-CA	CABLE TIE ANCHOR STD (Ø.375 X .27 THK)	14
48	TF-1080-06-030.00	HOSE FROM DRAIN VALVE	1
49	TF-1080-06-031.00	HOSE, DRAIN	1
50	TF-1080-06-032.00	HOSE, DRAIN	1
51	TF-1080-06-047.00	HOSE, TANK TO HOSE REEL	1
52	TF-1080-06-055.0	HOSE FROM TEE TO DRAIN VALVE	1
53	TF-1080-06-82.0	HOSE, PUSH ON	1
54	TF-1279	ASSEMBLY, HOSE	1
55	Z-10837-00	WLD, BEACON POST, TALL (WP)	1
56	Z-10838	ASY, STROBE WITH CONNECTOR	1
57	Z-11039-00	WLD, OVERHEAD GUARD TTR8 AC (WP)	1
58	Z-9825	ASY, HEADLIGHT W/CONNECTOR	4

22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



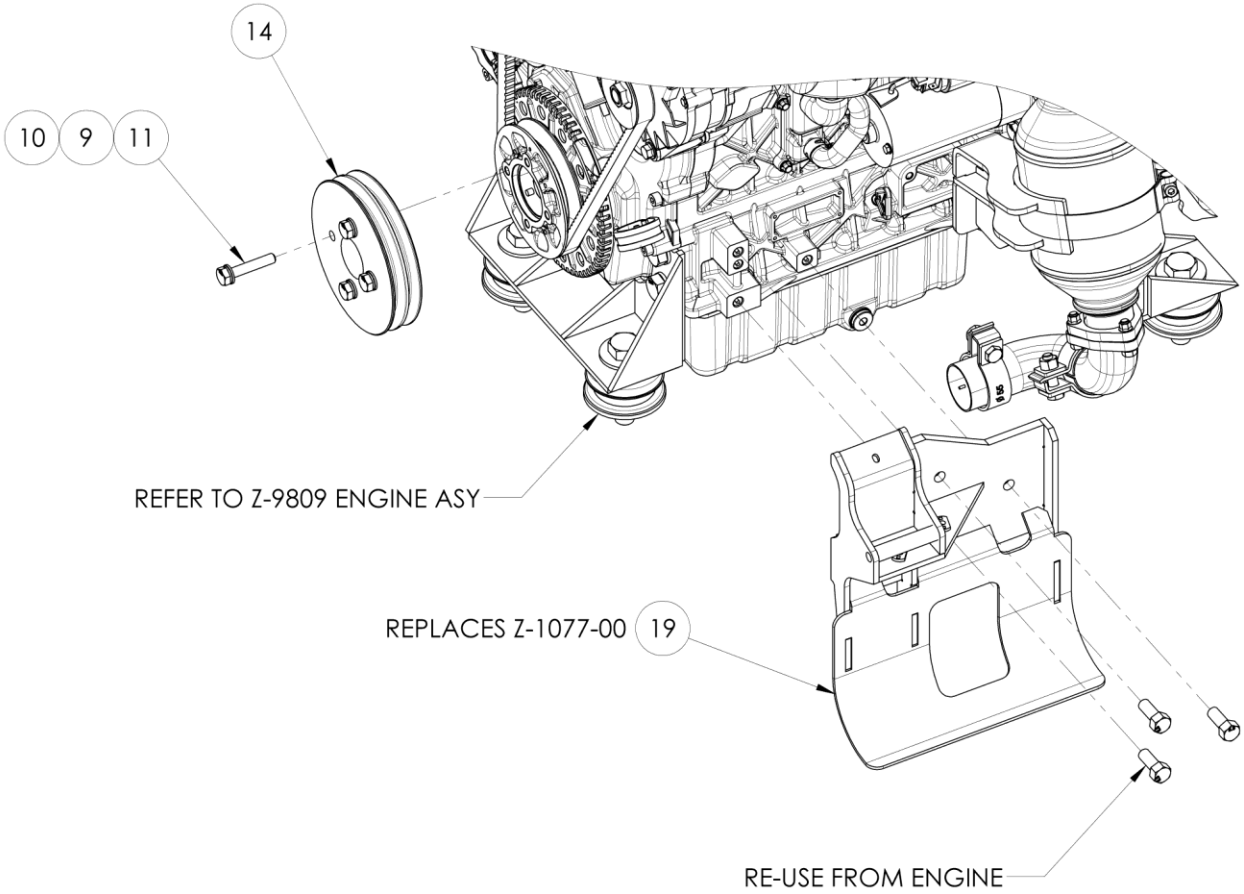
NOTE: Parts shown replace components in Z-9913 and are unique to the TTR-6TP with air conditioning. Re-use all other clamps and parts from Z-9913.

Parts List – Cooling System

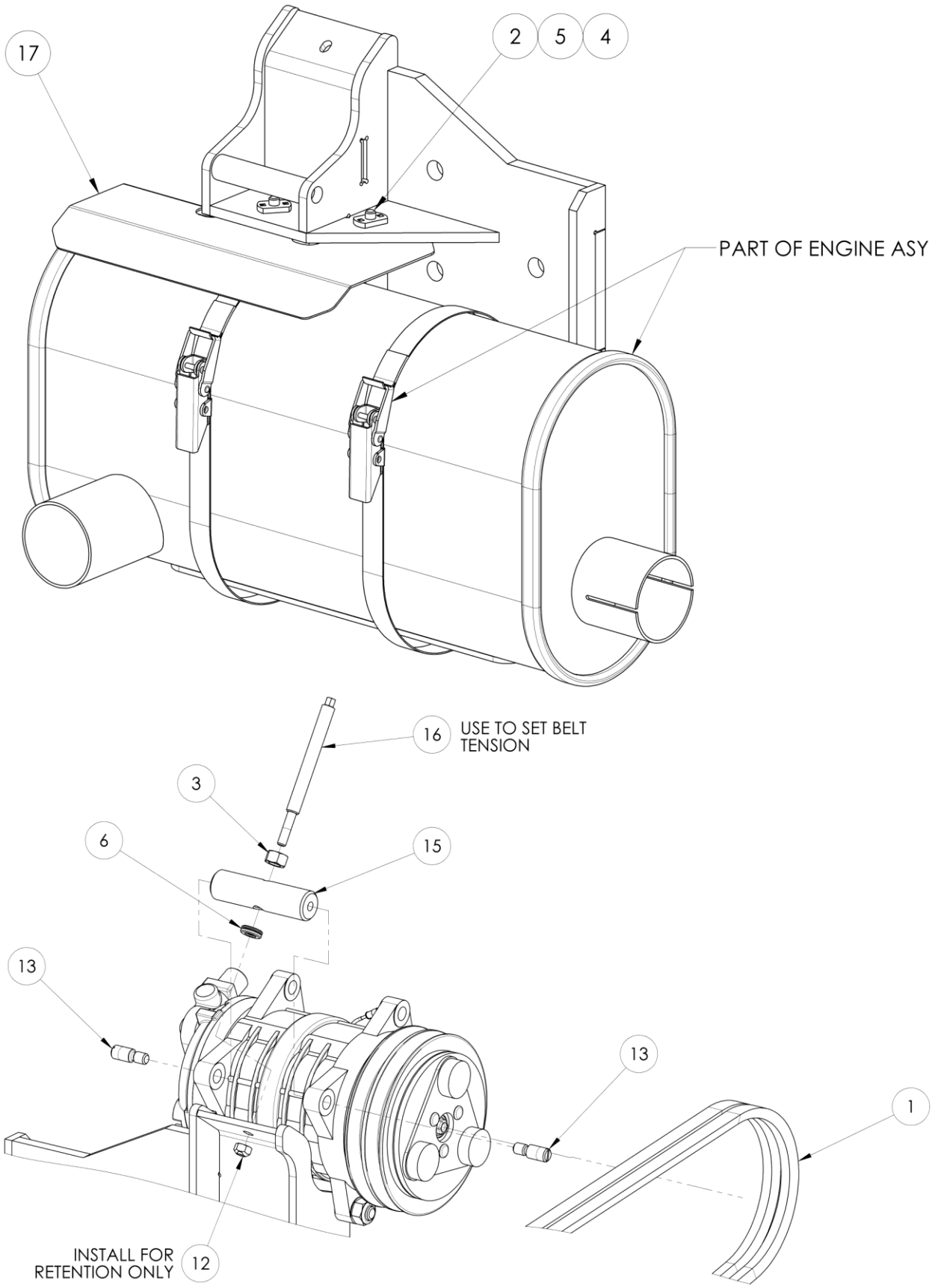
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	H-4293	RAD ELBOW 90 DEG 1.50	1
2	TR-2648-00	RAD TUBE, COLD A (AC) (P)	1
3	TR-2649-00	RAD TUBE, COLD B (AC) (P)	1
4	TR-2641	CAC TUBE, HOT (AC)	1

22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

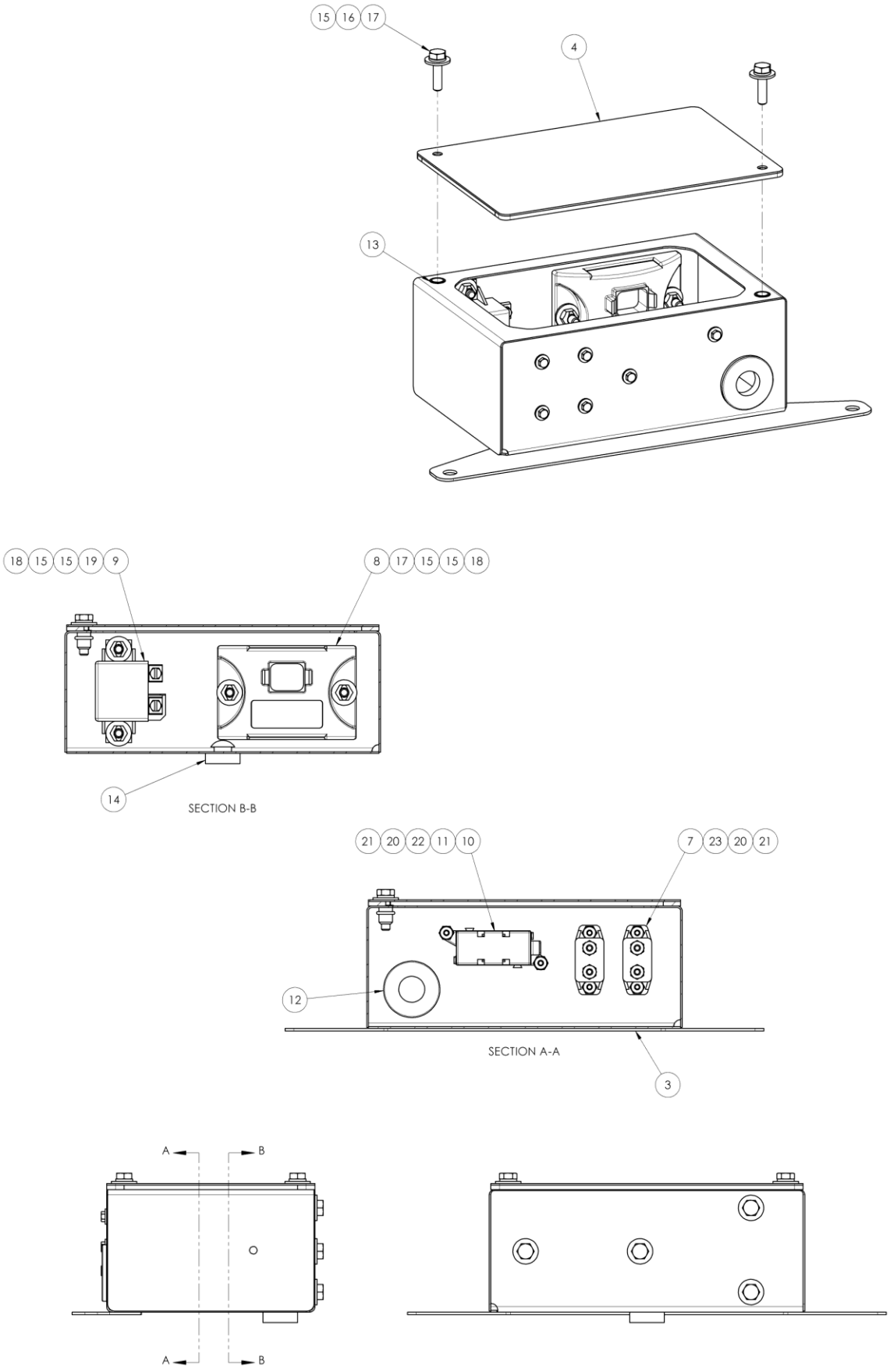
NOTE: Parts shown may replace components in z-9809 and are unique to the TTR-6TP with air conditioning. Re-use all other parts from Z-9809.

Parts List – Engine System

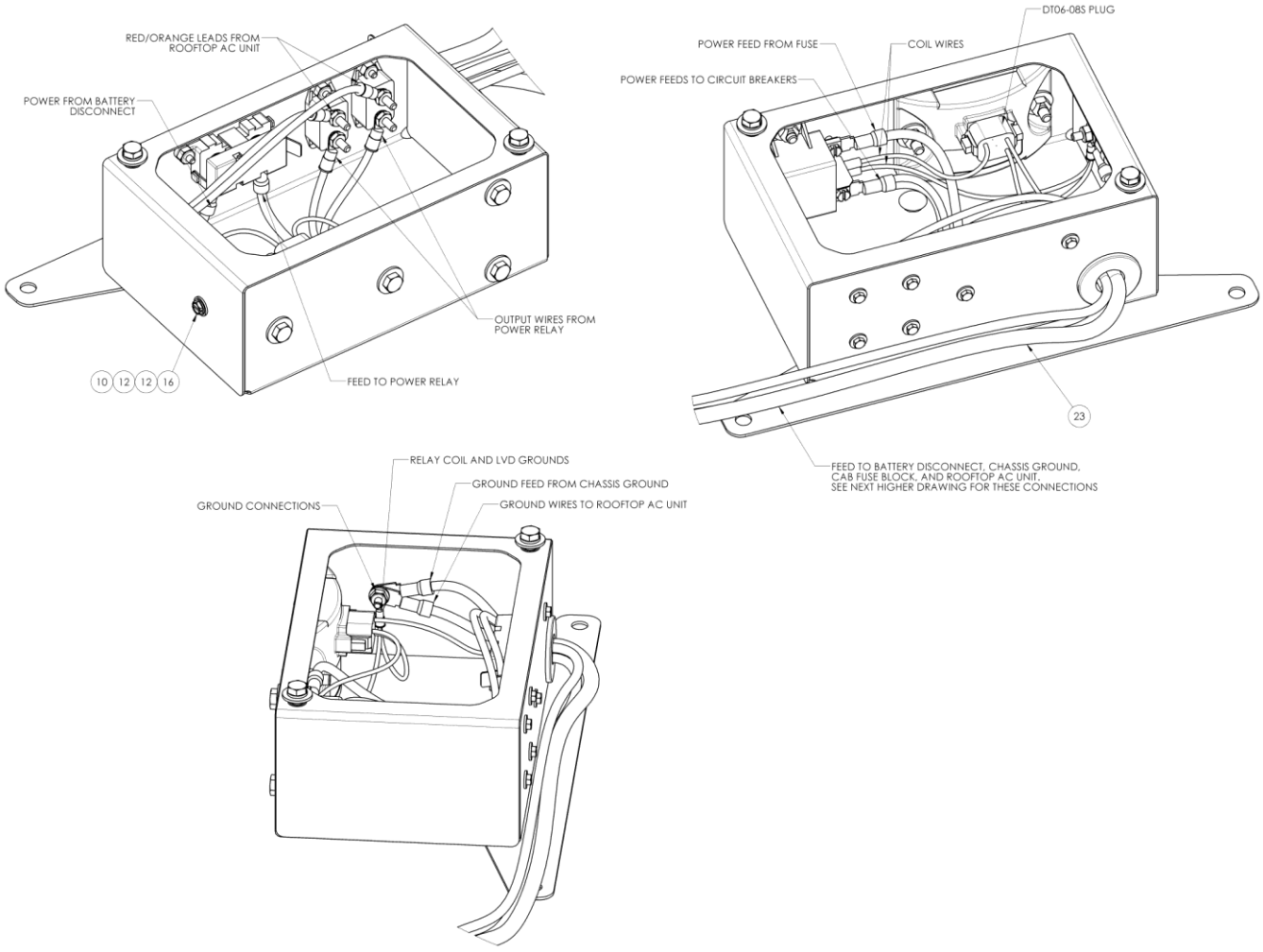
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	9405	GATES XL V-BELT, 40.5" EFF LG	2
2	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	2
3	G-1200-1070	NUT, 3/8-16 HEX	1
4	G-1250-1050W	FLATWASHER, 1/4 WIDE	2
5	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	2
6	G-1286-01	SET, SPHERICAL WASHER, 1/4"	1
7	G-1470-M10-1.5	ESN, M10-1.5	1
8	G-1491-108054	SOC HD CAP SCR, M10X1.5 X 130	1
9	G-1514-M100R	LOCKWASHER, M 10 REGULAR	4
10	G-1515-M100	FLATWASHER, M10	7
11	G-1533-100055	BOLT M10-1.5 X 55mm LG. CLASS 10.9	4
12	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	1
13	G-1838	M8 ALLOY SHOULDER SCREW	2
14	R-3342	PULLEY, AUXILLIARY	1
15	R-3343	COMPRESSOR TENSION ANCHOR	1
16	R-3344	COMPRESSOR TENSION SCREW	1
17	S-3934-00	HEAT SHIELD (P)	1
18	XL00-14-025-CA	AC COMPRESSOR	1
19	Z-11015-00	WLD, AC COMPRESSOR MTG BRACKET (WP)	1

22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



22.5.3 HEATED CAB WITH A/C OPTION *(continued)*



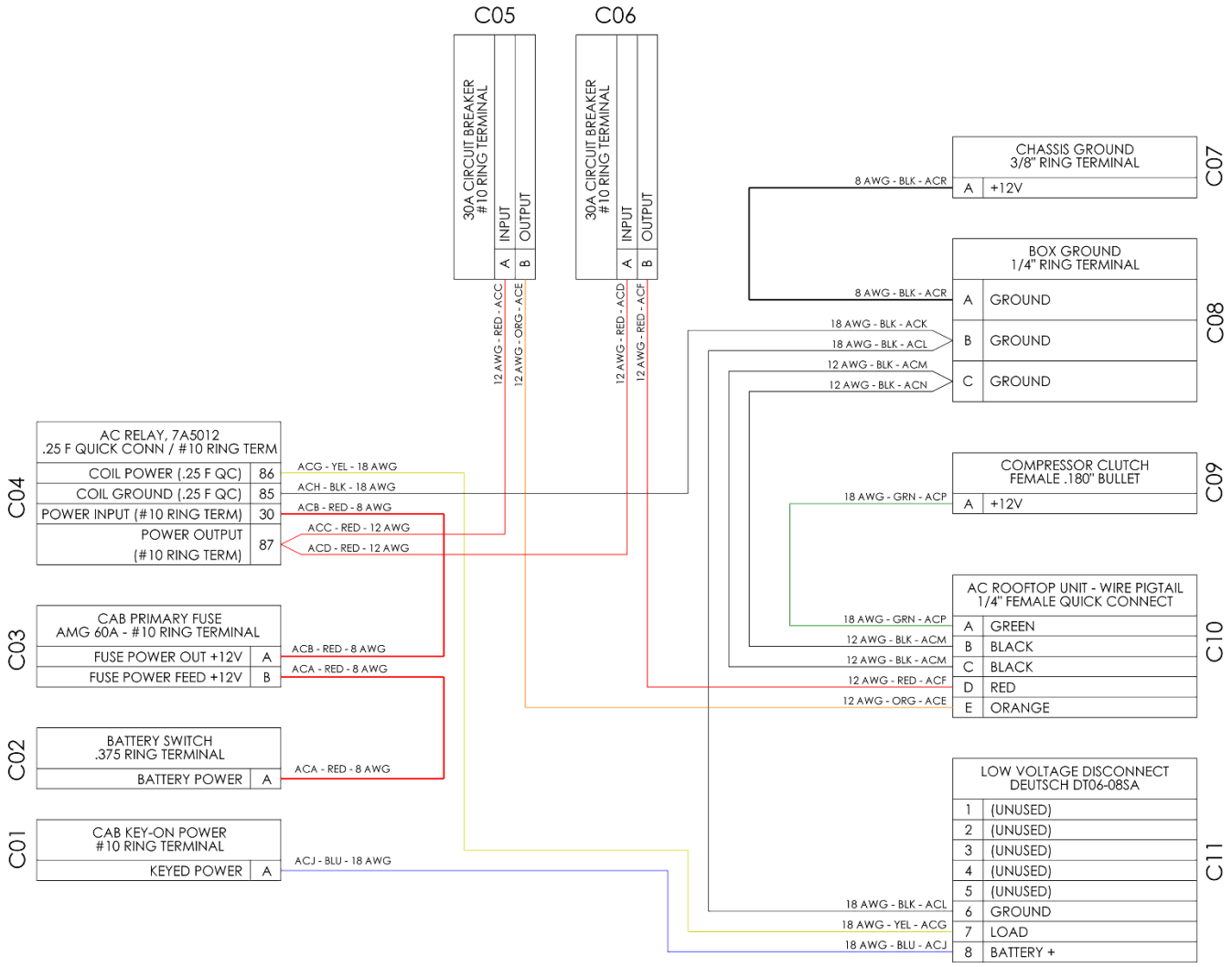
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

Parts List – Strobe with Connector

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	7A5012	ACS RELAY	1
2	EC-3146-05	60A FUSE, MIDI/AMI	1
3	EC-3274	LOW VOLTAGE DISCONNECT	1
4	EC-3314-30	CIRCUIT BREAKER, 30A	2
5	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	2
6	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	4
7	G-1150-102004	SCREW, #8-32 X 1/2" LG HEX HD MACHINE	4
8	G-1150-102005	SCREW, #8-32 X 5/8" LG HEX HD MACHINE	2
9	G-1202-1020	STOPNUT, #8-32 ELASTIC	6
10	G-1202-1035	STOPNUT, #10-32 ELASTIC	1
11	G-1250-1020N	FLATWASHER, #8 NARROW	6
12	G-1250-1030N	FLATWASHER, #10 NARROW	2
13	G-1250-1050W	FLATWASHER, 1/4 WIDE	10
14	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	2
15	G-1439-1050-S	NUTSERT, THIN WALL 1/4-20	2
16	G-1720-103506	SCR, #10-32X.75 MACH HEX WSH HD	1
17	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	4
18	H-1901-25	GROMMET	1
19	NVSP-05-025-CA	LMI FUSE HOLDER	1
20	NVSP-21-004-CA	RUBBER PRESS-IN BUMPER	1
21	Z-11046-00	WLD, AC ELECTRICAL	1
22	N/A	ASY, AC ELECTRICAL COVER	1
23	N/A	ASY, AC HARNESS	1

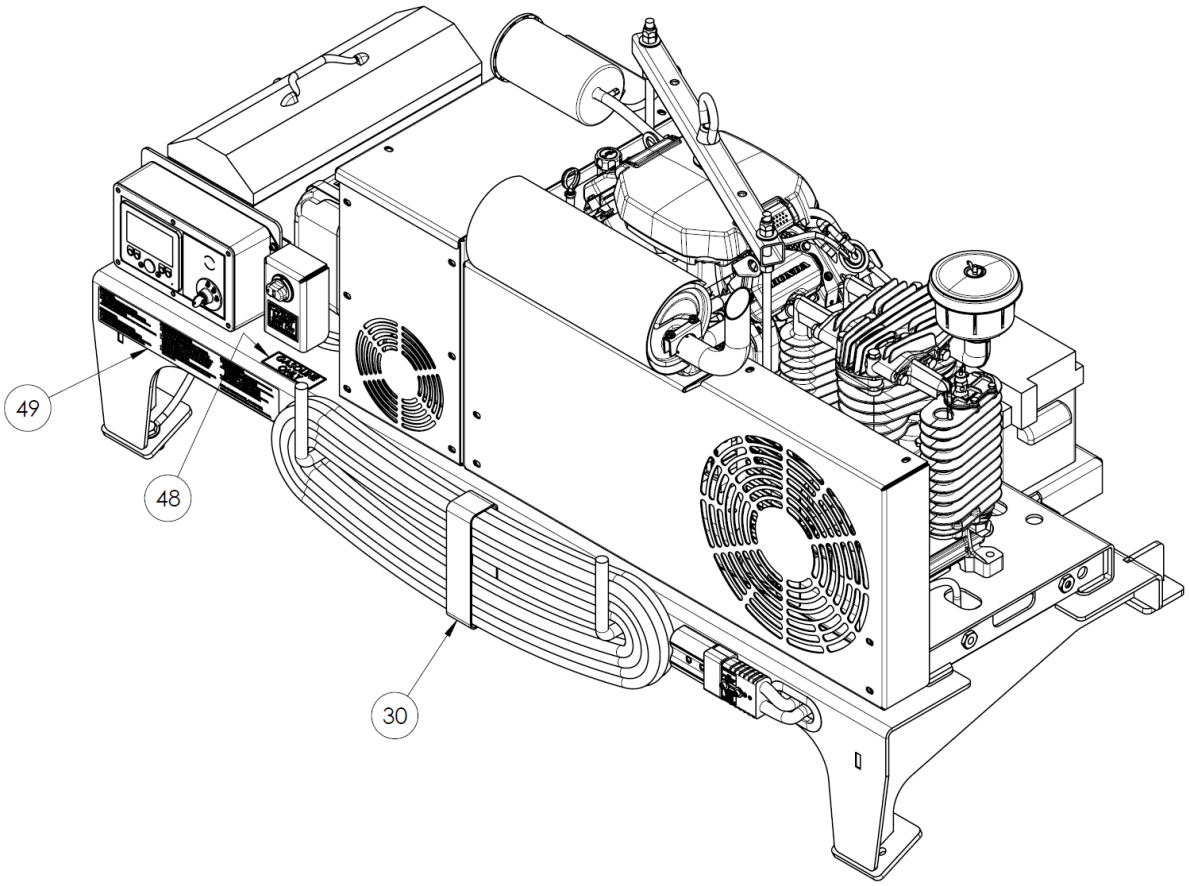
22.5.3 HEATED CAB WITH A/C OPTION *(continued)*

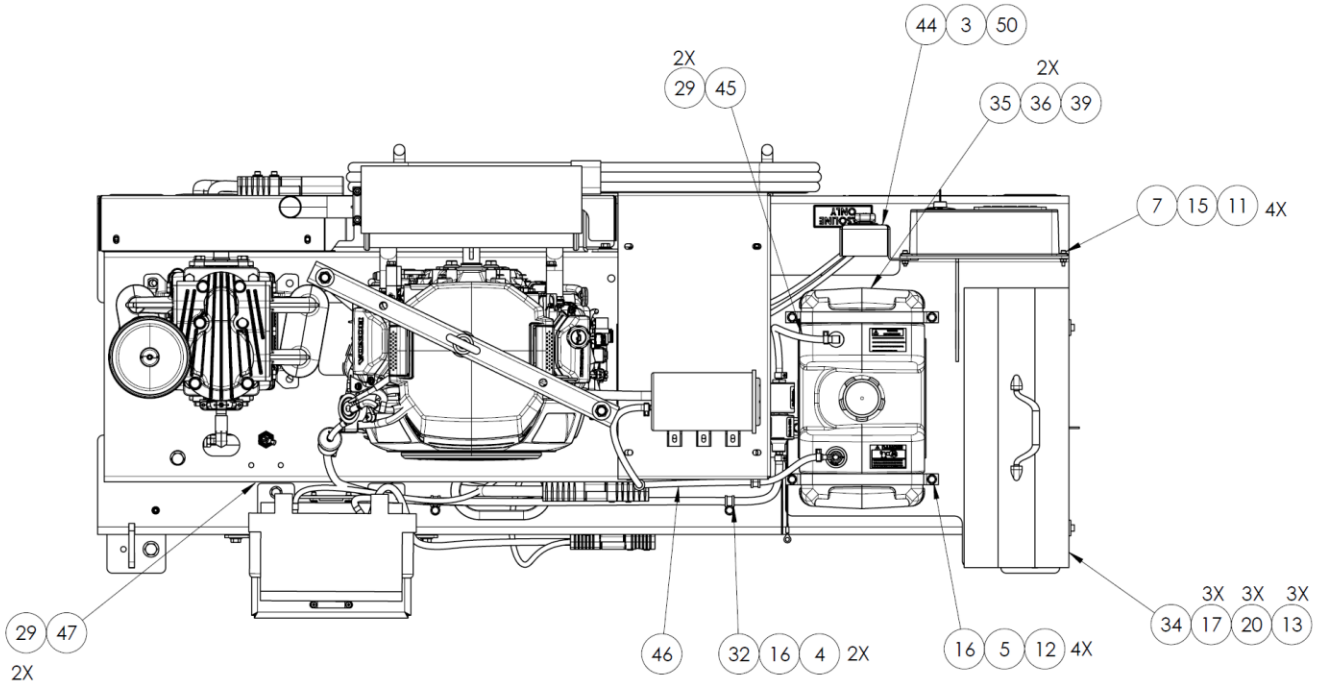


22.6 MOUNTED COMPRESSOR FEATURE

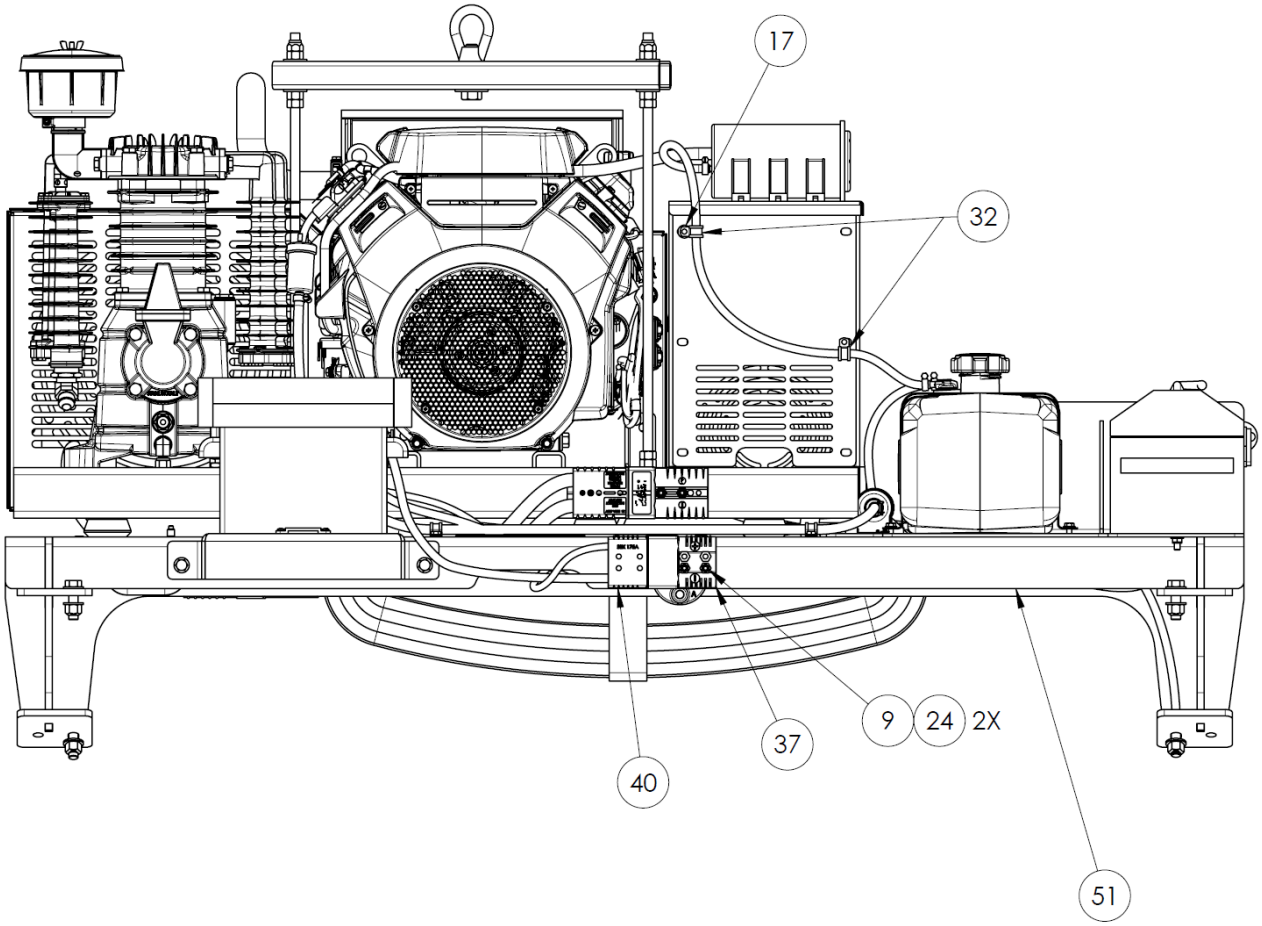
22.6.1 HIGH FREQUENCY COMPRESSOR OPTION

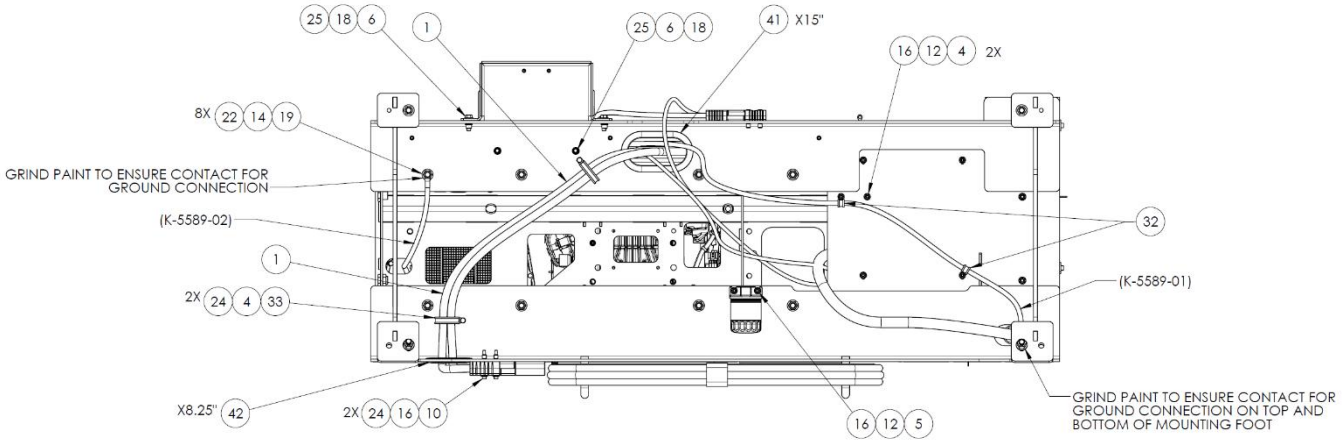
FEATURE NUMBER: TTRTP-COMP
OPTION NUMBER: TTRTP-COMP-A



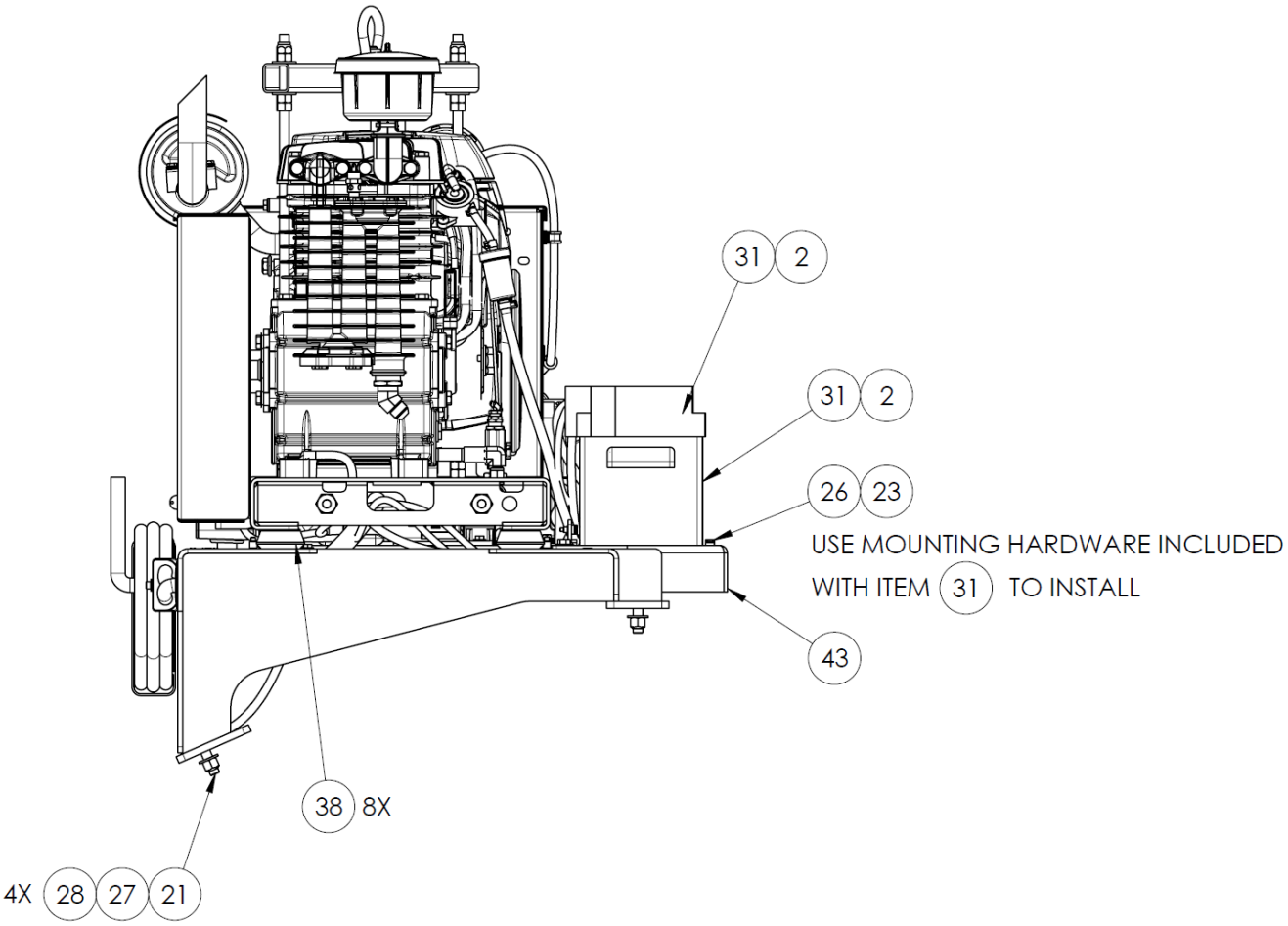


22.6.1 HIGH FREQUENCY COMPRESSOR OPTION *(continued)*





22.6.1 HIGH FREQUENCY COMPRESSOR OPTION *(continued)*



22.6.1 HIGH FREQUENCY COMPRESSOR OPTION *(continued)*

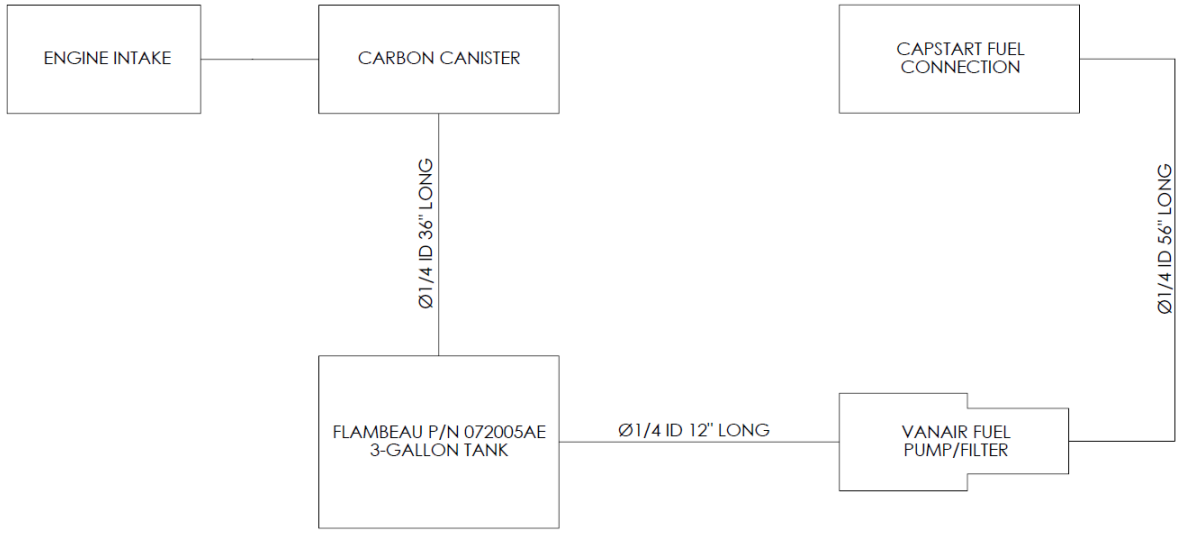
Parts List – TTRTP-COMP-A

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

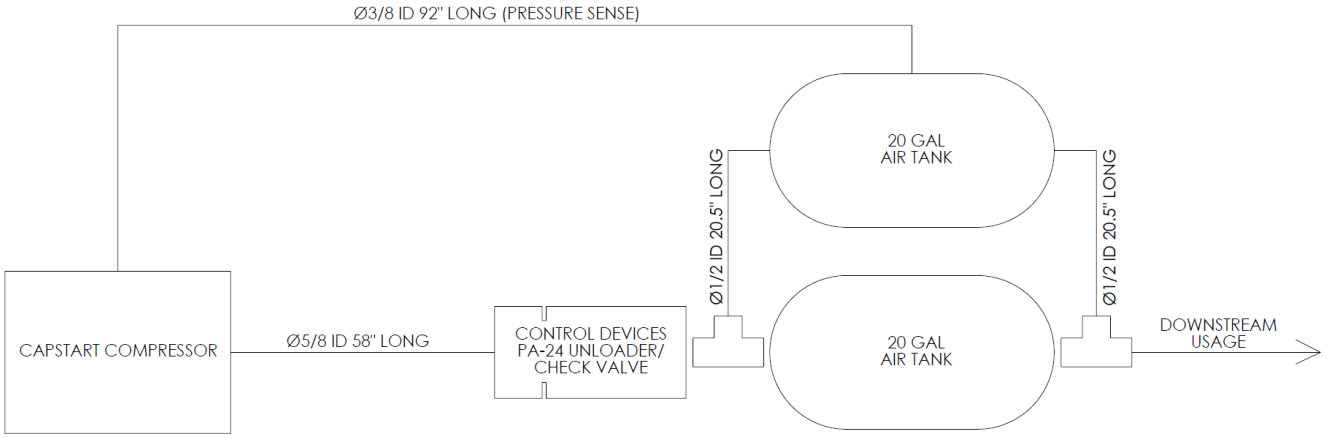
Item	Part Number	Description	Qty
1	EC-3572	EXTENSION, SB350	1
2	EC-3594	BATTERY, 30AH	1
3	EC-3661	BATTERY SWITCH, 100A	1
4	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	6
5	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	6
6	G-1100-107012	BOLT, 3/8-16 X 1-1/4" HEX HD GR 5	4
7	G-1151-103507	SCREW, #10-32 X 7/8" SOCKET HD CAP	4
9	G-1151-105014	SCREW, 1/4-20 X 1-1/2" LG SOCKET HD CAP	2
10	G-1151-105224	SCREW, 1/4-20 X 2-1/2" LG SOCKET HD CAP	2
11	G-1202-1035	STOPNUT, #10-32 ELASTIC	4
12	G-1202-1050	STOPNUT, 1/4-20 ELASTIC	8
13	G-1202-1060	STOPNUT, 5/16-18 ELASTIC	3
14	G-1202-1090	STOPNUT, 1/2-13 ELASTIC	8
15	G-1250-1030N	FLATWASHER, #10	8
16	G-1250-1050N	FLATWASHER, 1/4 NARROW	20
17	G-1250-1060N	FLATWASHER, 5/16 NARROW	9
18	G-1250-1070N	FLATWASHER, 3/8 NARROW	4
19	G-1250-1090N	FLATWASHER, 1/2 NARROW	16
20	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	3
21	G-1420-109016	BOLT, 1/2-13 X 1-3/4" HEX HD GR 8	4
22	G-1420-109024	BOLT, 1/2-13 X 2-1/2" HEX HD GR 8	8
23	G-1439-1035-S	NUTSERT, THIN WALL #10-32	4
24	G-1440-1050-S	NUTSERT, 1/4-20 OPEN END	9
25	G-1440-1070-S	NUTSERT, THICK WALL 3/8-16	4
26	G-1497-103106	SCREW, #10-32 X 3/4" LG. SST PAN HD CROSS RECESS	4
27	G-1513-1090N	FLATWASHER, THRU HARD N	8
28	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4
29	H-1426-22	CLAMP, HOSE	4
30	H-2220-35-30.0	STRAP, VELCRO, 2" WIDE	1
31	H-3488	BOX, BATTERY	1
32	H-3521-02	CLAMP, CUSHIONED LOOP 7/16"	6
33	H-3521-27	CLAMP, CUSHIONED LOOP 2"	2
34	H-4765	TOOLBOX, MODIFIED	1
35	H-4775	TANK, FUEL 3 GAL	1
36	H-4777	STRAP, FUEL TANK 3 GAL	2
37	H-5036	STARTING UNIT	1
38	H-5037	ISOLATOR	8
39	H-5199	FUEL CAP, WITH GAUGE	1
40	K-5589	KIT, CABLE ASSEMBLY	1
41	NSVP-24-042-CB	METAL CORE EDGE TRIM - 1/4"	16
42	NVSP-24-042-CB	METAL CORE EDGE TRIM - 1/4"	8
43	S-4586-00	TRAY, BATTERY	1
44	S-4620-00	BRACKET, BATTERY SWITCH (P)	1
45	TF-1152-01-12.0	1/4" XL FUEL LINE BY GATES	1
46	TF-1152-01-36.0	1/4" XL FUEL LINE BY GATES	1
47	TF-1152-01-56.0	1/4" XL FUEL LINE BY GATES	1
48	V-2780	LABEL, GASOLINE ONLY	1
49	V-2979	ETT, TP INSTRUCTIONS	1
50	V-3010	LABEL, BATTERY SWITCH	1
51	Z-11867-00	WLD, COMPRESSOR MOUNT (WP)	1

22.6.1 HIGH FREQUENCY COMPRESSOR OPTION *(continued)*

FUEL SCHEMATIC

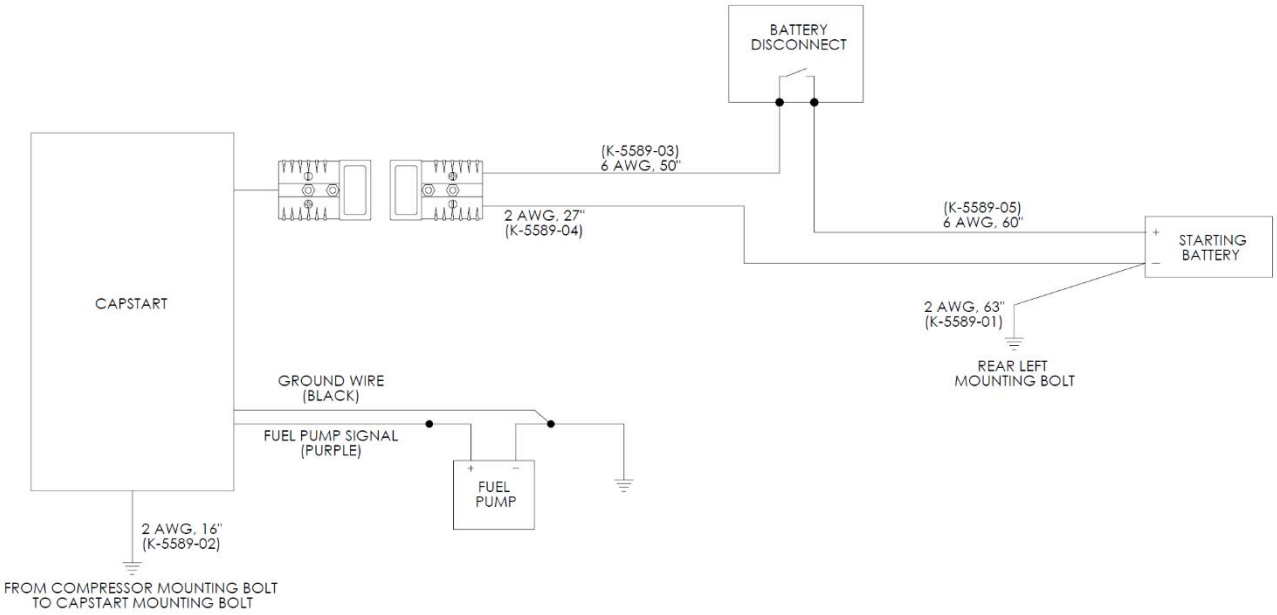


AIR SCHEMATIC



22.6.1 HIGH FREQUENCY COMPRESSOR OPTION *(continued)*

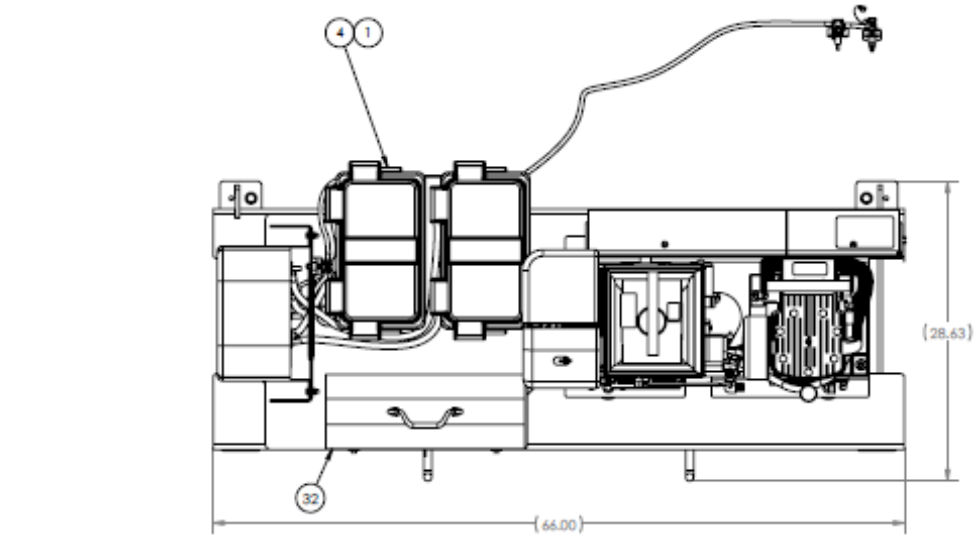
ELECTRICAL SCHEMATIC

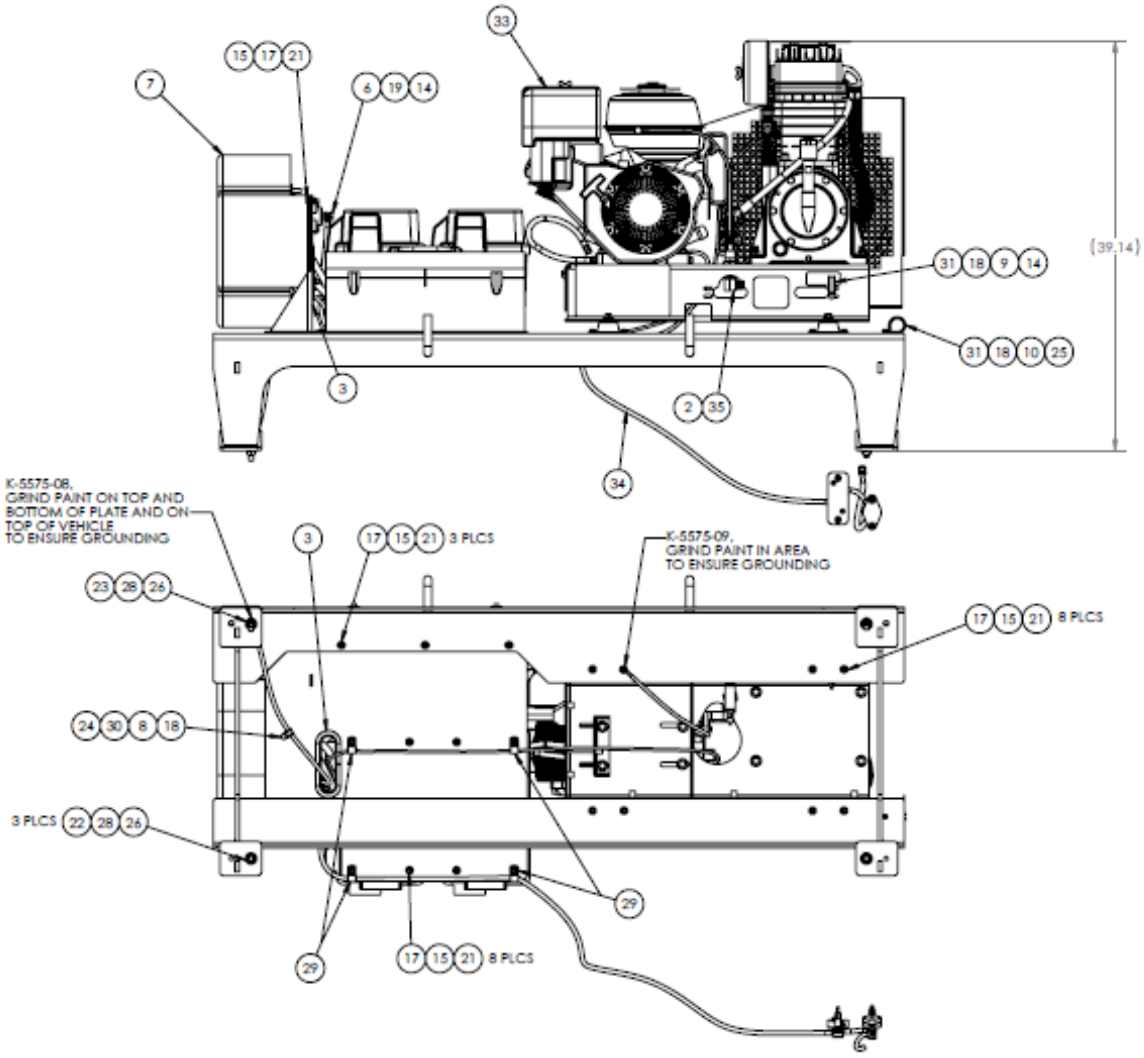


22.6.2 LOW FREQUENCY COMPRESSOR OPTION

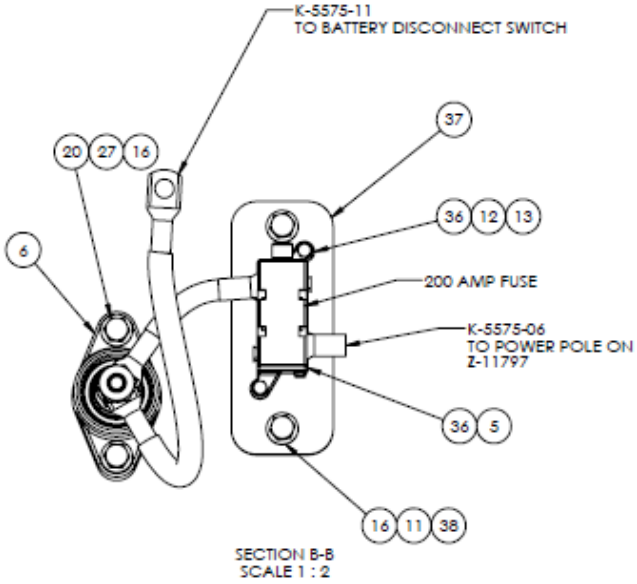
FEATURE NUMBER: TTRTP-COMP

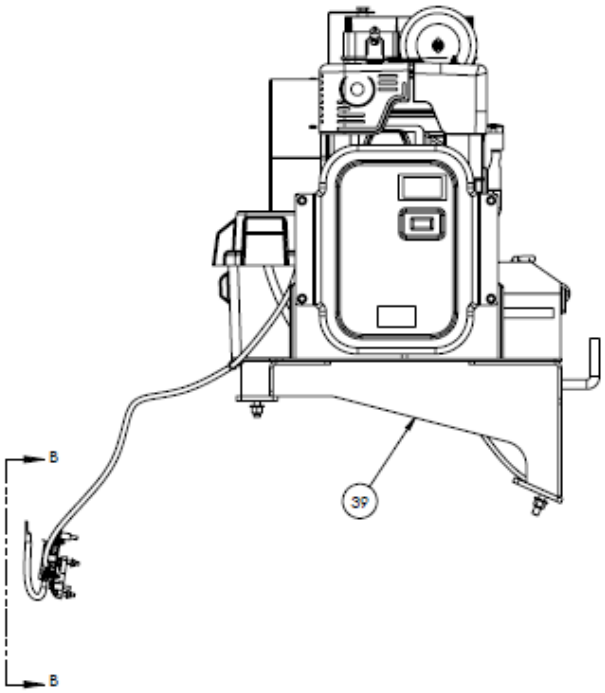
OPTION NUMBER: TTRTP-COMP-B

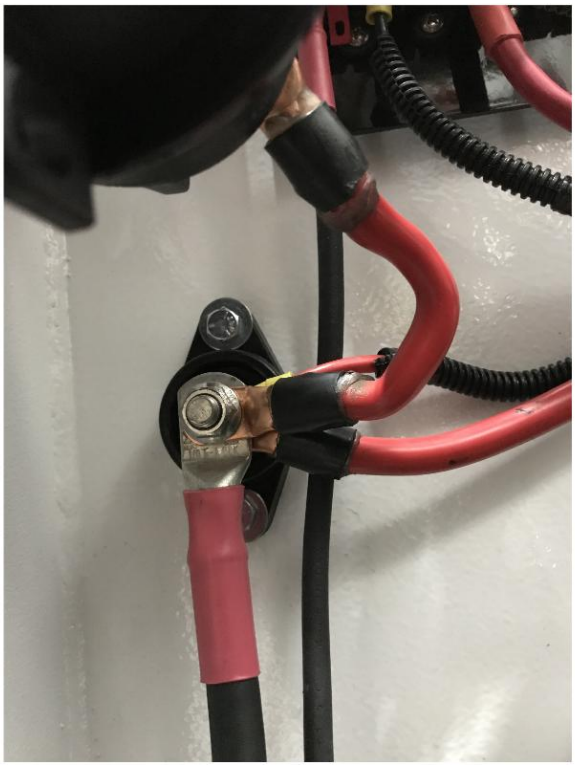




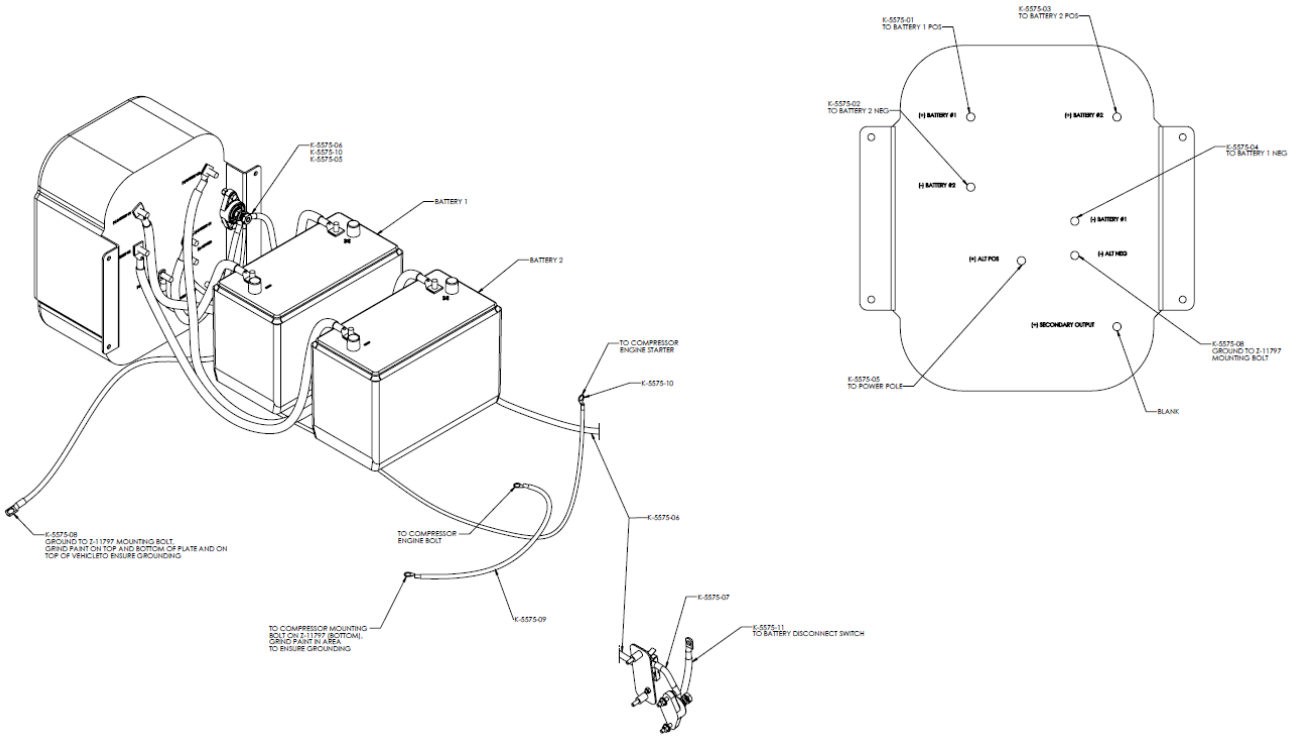
22.6.2 LOW FREQUENCY COMPRESSOR OPTION *(continued)*







22.6.2 LOW FREQUENCY COMPRESSOR OPTION *(continued)*



22.6.2 LOW FREQUENCY COMPRESSOR OPTION *(continued)*

Parts List – TTRTP-COMP-B

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	31A1000	BATTERY 1010CCA	2
2	50785K31	ADAPTER, 1/2M X 1/2F NPT BRASS	1
3	999-045	EDGE TRIM, 9/64-1/4 GRIP	37
4	AE-OPT-0124-1	BATTERY BOX	2
5	EC-3146-12	200A FUSE, MIDI/AMI	1
6	EC-3224	POWER POST, 3/8-16 X 7/8	2
7	EC-3481	12/24 VOLT CONTROL BOX	1
8	G-1100-105004	BOLT, 1/4-20 X 1/2" LG. HEX HD GR 5	1
9	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	1
10	G-1100-105012	BOLT, 1/4-20 X 1-1/4" LG HEX HD GR 5	1
11	G-1100-105014	BOLT, 1/4-20 X 1-1/2" LG HEX HD GR 5	2
12	G-1150-102005	SCREW, #8-32 X 5/8" LG HEX HD MACHINE	2
13	G-1202-1020	STOPNUT, #8-32 ELASTIC	2
14	G-1202-1050	STOPNUT, 1/4-20 ELASTIC	3
15	G-1202-1060	STOPNUT, 5/16-18 ELASTIC	23
16	G-1250-1050N	FLATWASHER	6
17	G-1250-1060N	FLATWASHER, 5/16 NARROW	46
18	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	4
19	G-1420-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 8	2
20	G-1420-105014	BOLT, 1/4-20 X 1-1/2" LG HEX HD GR 8	2
21	G-1420-106510	BOLT, 5/16-24 X 1.0"LG. HEX HD GR 8	23
22	G-1420-109016	BOLT, 1/2-13 X 1-3/4" HEX HD GR 8	3
23	G-1420-109022	BOLT, 1/2-13 X 2-1/4 H.H. GR 8	1
24	G-1439-1050-S	NUTSERT, 1/4-20 OPEN END	1
25	G-1440-1050-S	NUTSERT, 1/4-20 OPEN END	1
26	G-1513-1090N	FLATWASHER, THRU HARD N	8
27	G-1727-1050	NUT, 1/4-20 TOP LOCK ZINC	2
28	G-1727-1090	NUT, 1/2-13 TOP LOCK ZINC	4
29	G-1847-08	CUSHION LOOP CLAMP, 1/2", Ø.406 MTG HOLE	4
30	H-3521-02	CLAMP, CUSHIONED LOOP 7/16"	1
31	H-3521-15	CLAMP, CUSHIONED LOOP 1 1/4"	2
32	H-4765	TOOLBOX, MODIFIED	1
33	H-5018	ENGINE AIR COMPRESSOR	1
34	K-5575	KIT, CABLE ASSEMBLY	1
35	N-2410-10	ELBOW, 90 DEG MALE	1
36	NVSP-05-025-CA	LMI FUSE HOLDER	1
37	S-4330-00	MOUNT, FUSE	1
38	TR-2553	SPACER, 1/4 X .75 LG	2
39	Z-11796-00	WLD, COMPRESSOR MOUNT (WP)	1

22.7 FIRE EXTINGUISHER FEATURE

22.7.1 NO FIRE EXTINGUISHER

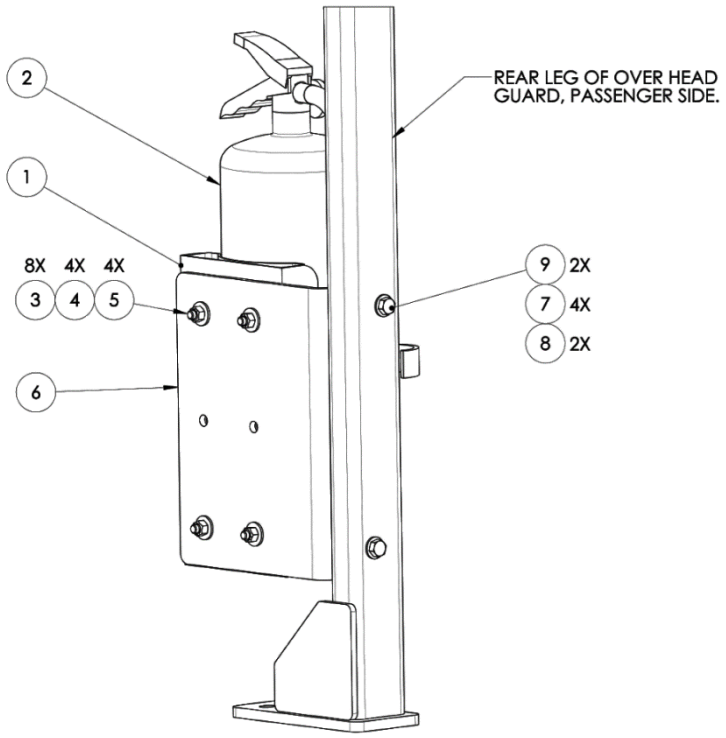
FEATURE NUMBER: TTRTP-FIRE
OPTION NUMBER: TTRTP-FIRE-O

DESCRIPTION: Standard configuration, no fire extinguisher. This option contains no parts or assemblies
COMPATIBILITY NOTES: No compatibility concerns

22.7.2 10# ABC FIRE EXTINGUISHER

FEATURE NUMBER: TTRTP-FIRE
OPTION NUMBER: TTRTP-FIRE-1

DESCRIPTION: 10 LB. Fire Extinguisher
ABC Rated
A - Trash / Wood / Paper
B - Liquids and Gases
C - Energized Electrical Sources
COMPATIBILITY NOTES: No compatibility concerns



Parts List – 10# Fire Extinguisher

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	H-5437	FIRE EXTINGUISHER BRACKET	1
2	H-5436	FIRE EXTINGUISHER, 10# ABC	1
3	G-1250-1060W	FLATWASHER, 5/16 WIDE	8
4	G-1727-1060	NUT, 5/16-18 TOP LOCK ZINC	4
5	G-1420-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 8	4
6	S-3971-00	BRACKET, FIRE EXT.	1
7	G-1250-1070N	FLATWASHER, 3/8 NARROW	4
8	G-1727-1070	NUT, 3/8-16 TOP LOCK ZINC	2
9	G-1100-107024	BOLT, 3/8-16 X 2-1/2" HEX HD GR 5	2

22.8 MIRRORS FEATURE

22.8.1 NO MIRRORS

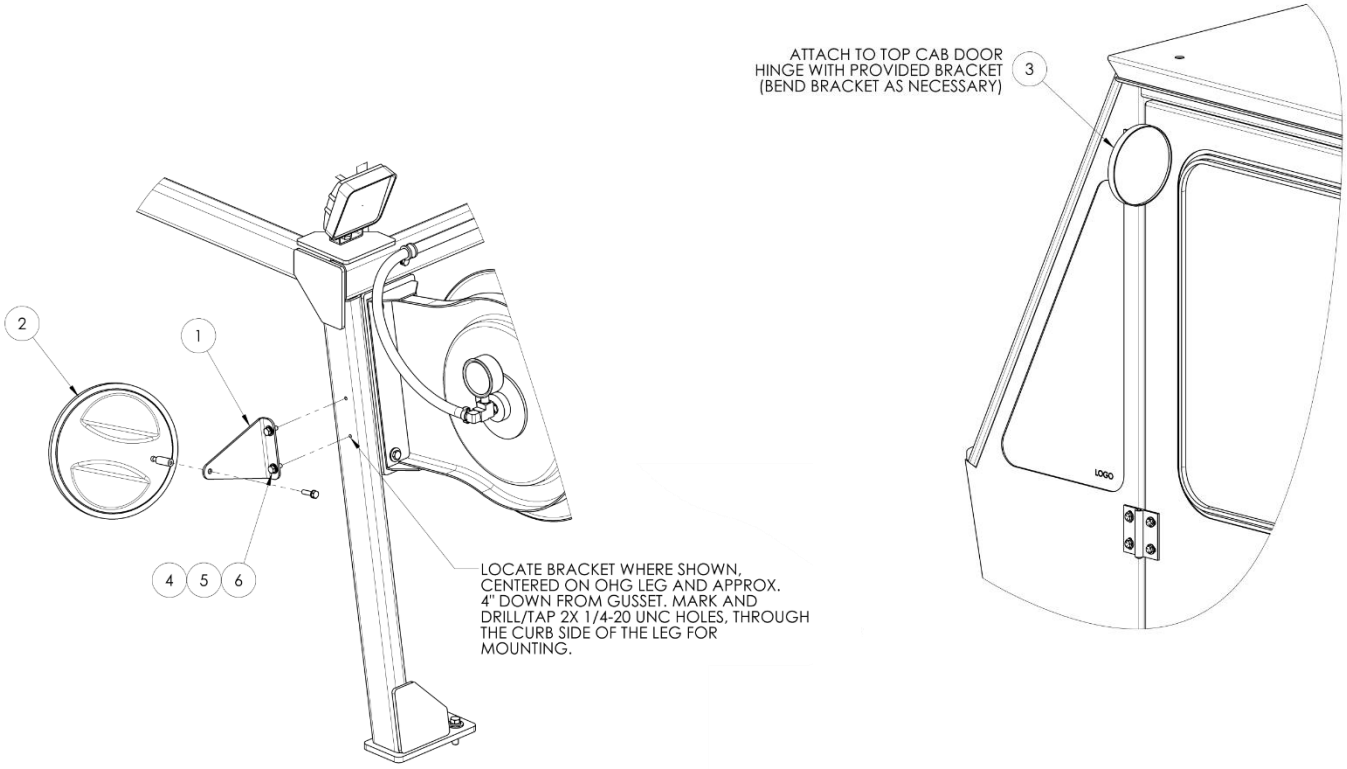
FEATURE NUMBER: TTRTP-MIR
OPTION NUMBER: TTRTP-MIR-O

DESCRIPTION: Standard configuration, no mirrors. This option contains no parts or assemblies
COMPATIBILITY NOTES: No compatibility concerns

22.8.2 LH AND RH SIDE CONVEX MIRRORS

FEATURE NUMBER: TTRTP-MIR
OPTION NUMBER: TTRTP-MIR-1

DESCRIPTION: RH and LH convex mirrors This option provides a 5" convex LH side mirror, and 8" convex RH side mirror to improve rear visibility
COMPATIBILITY NOTES: No compatibility concerns



Parts List – RH and LH Convex Mirrors

When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
1	A-MTT5-0238	SIDE MIRROR BRACKET	1
2	AE-OPT-0052-B	8" OUTSIDE MIRROR-CAB	1
3	AE-OPT-0051	CONVEX MIRROR, 5"	1
4	G-1250-1050N	FLATWASHER, 1/4 NARROW	2
5	G-1251-1050R	LOCKWASHER, 1/4 REGULAR	2
6	G-1100-105006	BOLT, 1/4-20 X 3/4" LG HEX HD GR 5	2

23.0 APPENDICIES

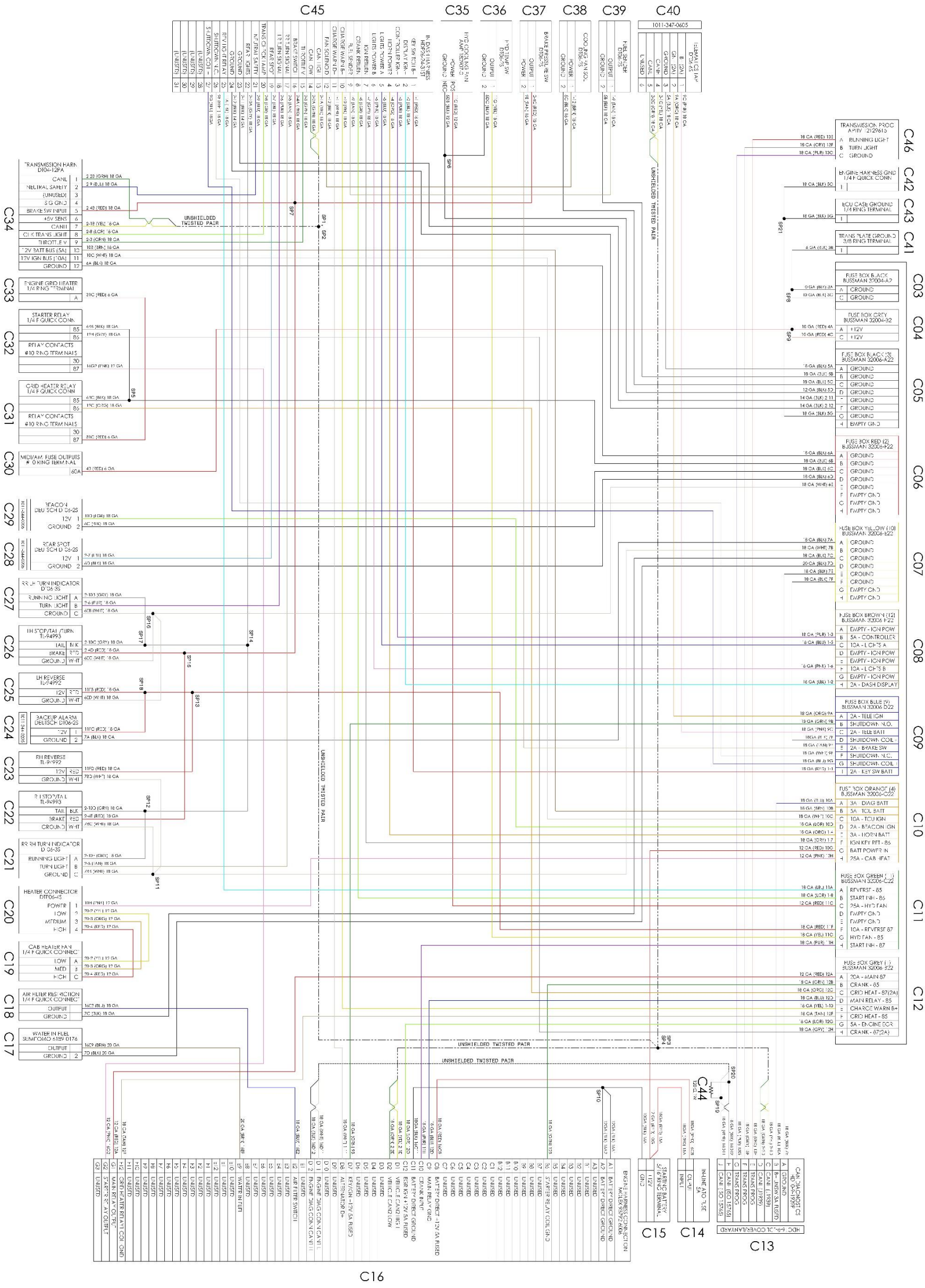
APPENDIX I	Schematics
APPRNDIX II	Axle Service Parts
APPENDIX III	J1939 Engine Codes
APPENDIX IV	Engine Start Manual
APPENDIX V	Air Compressor Manual

TRONAIR®

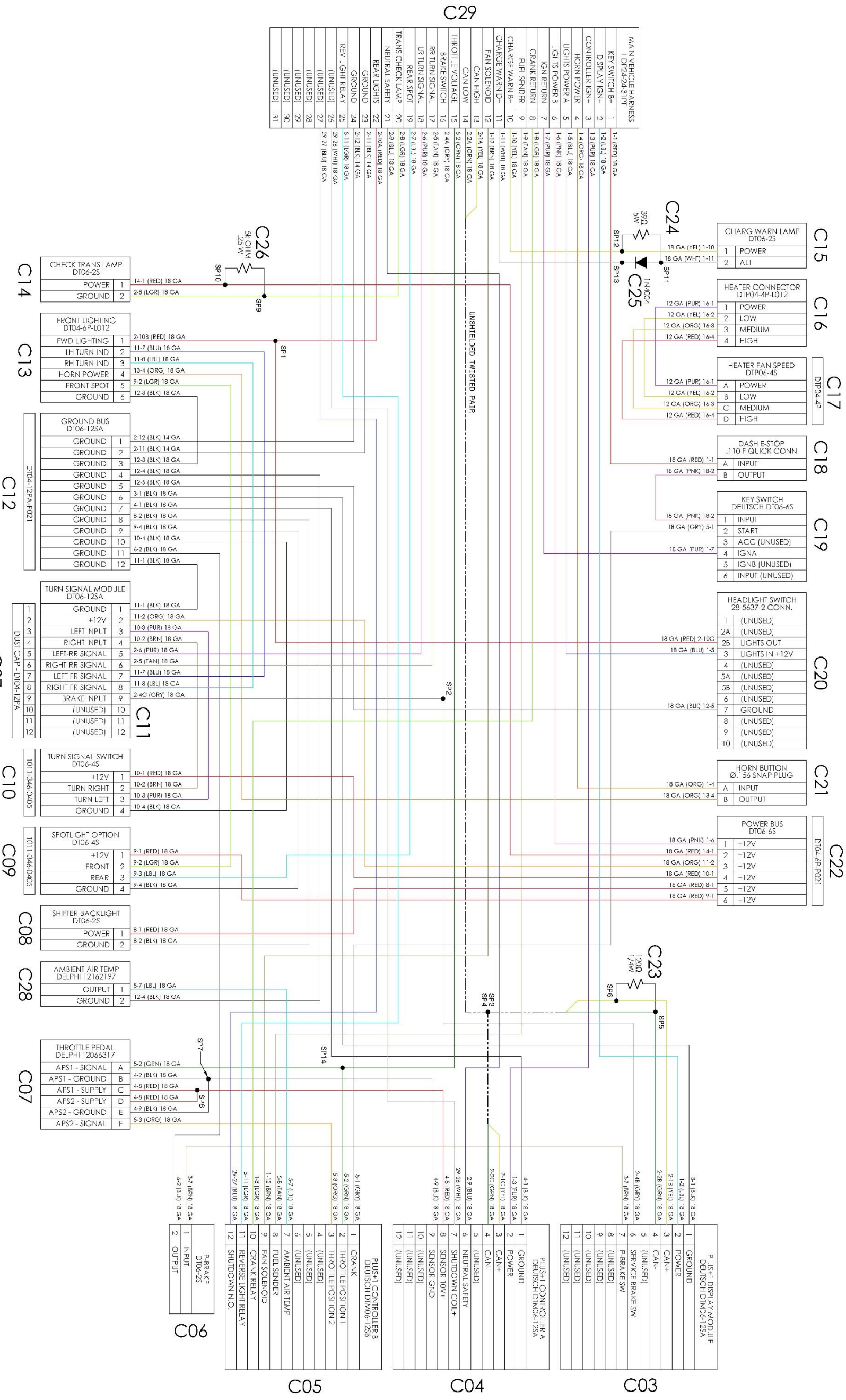
APPENDIX I

Schematics

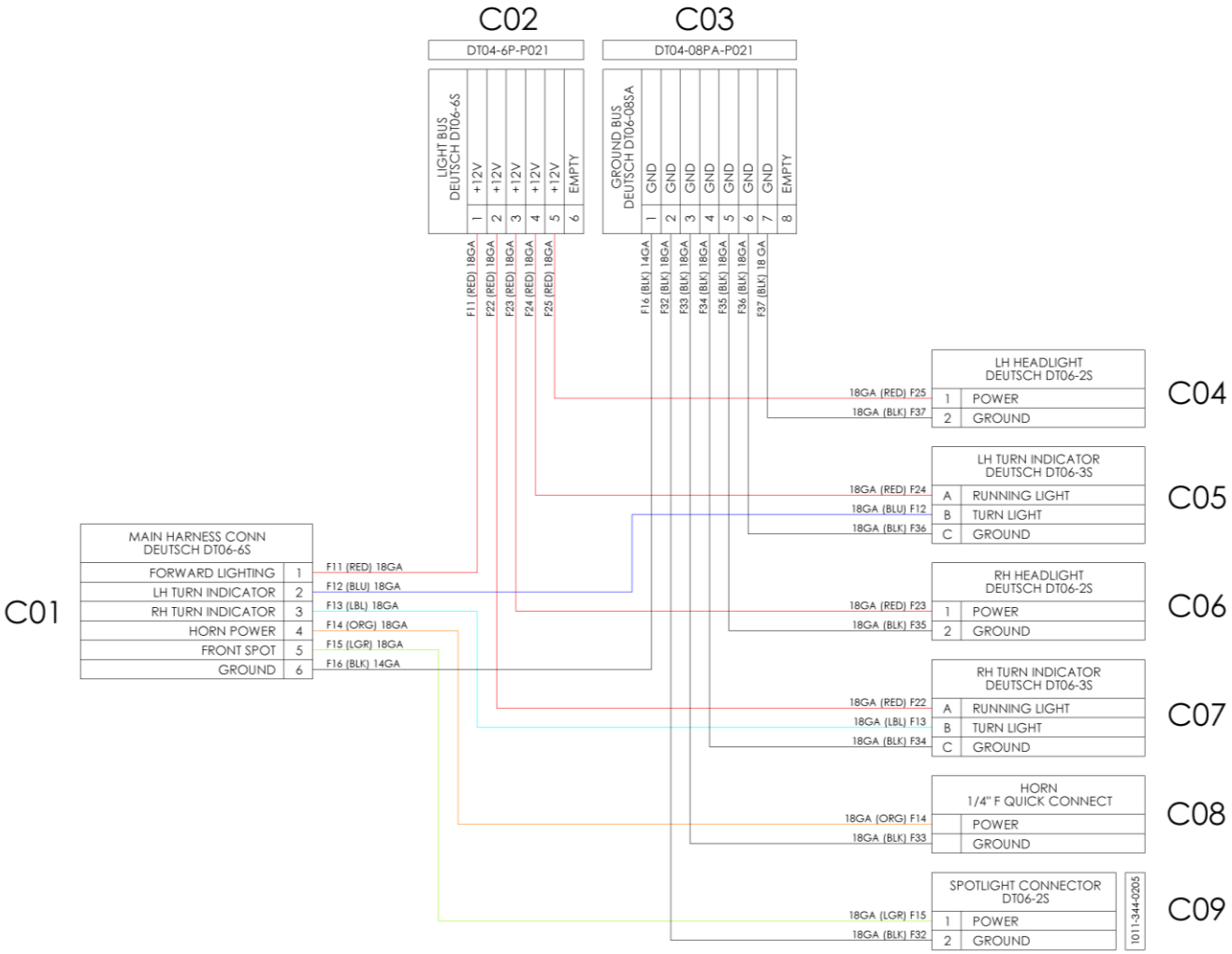
Main Wiring Harness Schematic



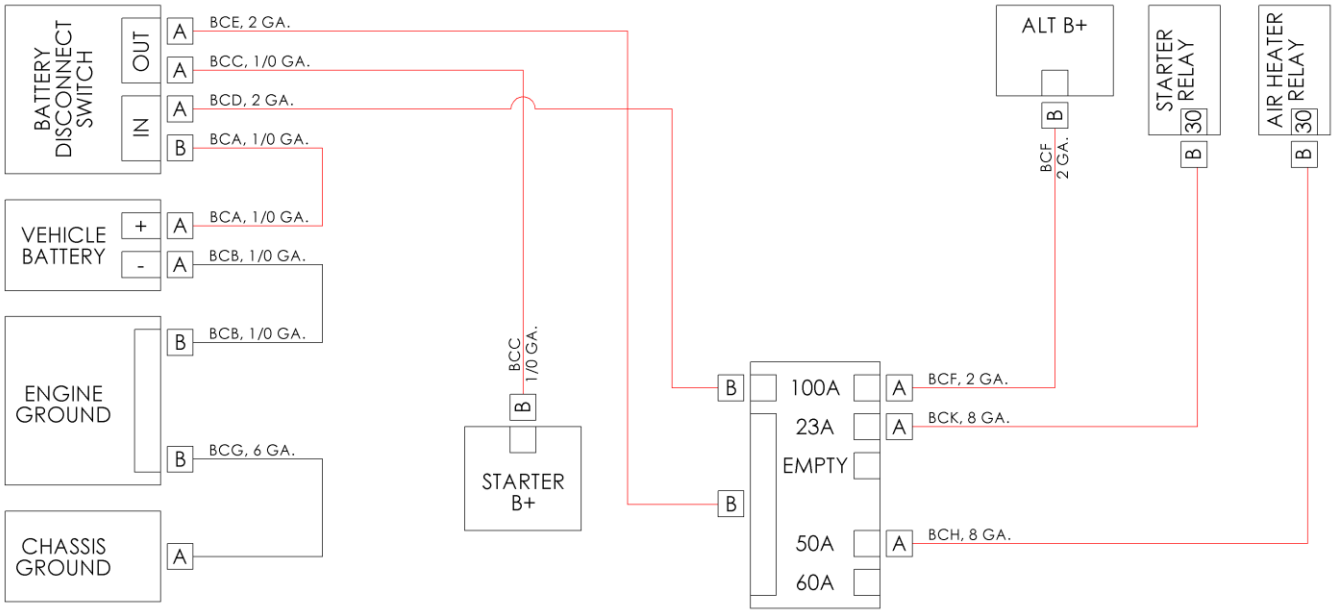
Dash Panel Wiring Harness Schematic



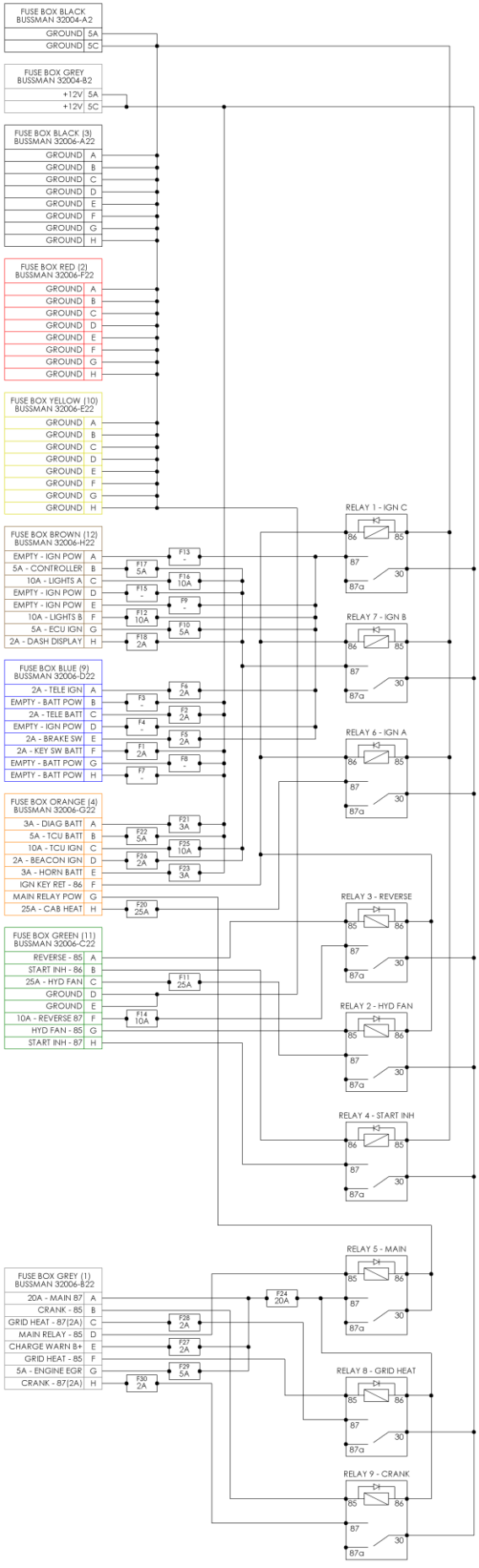
Front Wiring Harness Schematic



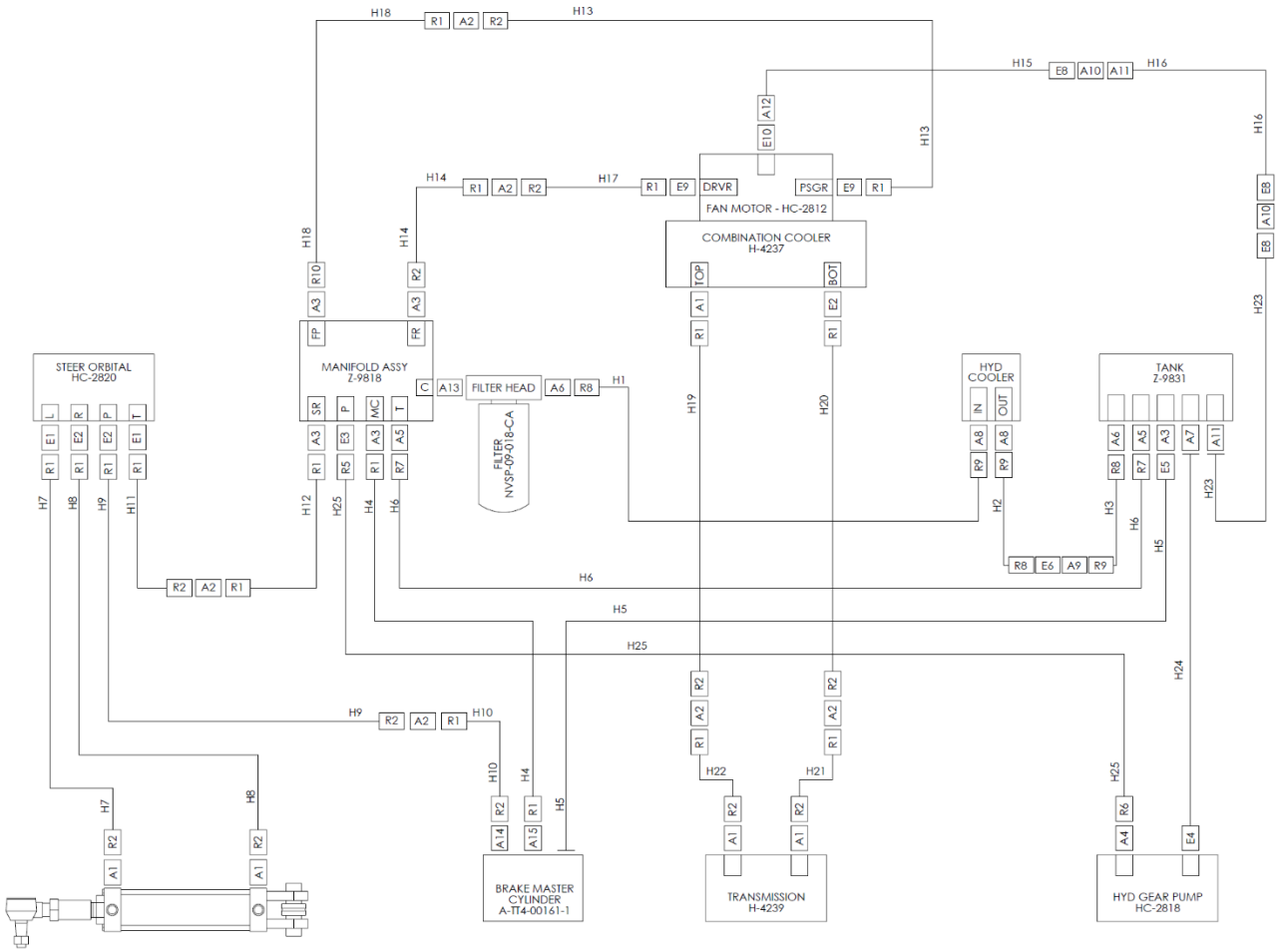
Battery Cable Schematic



Power Distribution Box Schematic



Hydraulic Schematic



ADAPTERS			
ID	**Description**	**Part Number**	**Qty**
A1	ADAPTER, -8 SAE ORB M, -6 JIC M	C5315X6X8	3
A3	ADAPTER, -6 SAE ORB M, -6 JIC M	C5315X6	5
A4	ADAPTER, -12 SAE ORB M, -10 JIC M	N-2007-17-S-B	1
A5	ADAPTER, -8 SAE ORB M, -8 JIC M	C5315X8	2
A6	ADAPTER, -12 SAE ORB M -12 JIC M	C5315X12	2
A7	-20 NPT M, -20 HOSE BARB STRAIGHT	4404-20-20	1
A8	ADAPTER, -16 SAE ORB M, -12 JIC M	C5315X12X16	2
A9	-12 BULKHEAD NUT	C5924X12	1
A10	ADAPTER, -4 NPT BULKHEAD FITTING	A-TT4-00280	2
A11	ADAPTER, -4 NPT M, -6 HOSE BARB	05706B-104	2
A12	ADAPTER, -6 JIC F, -6 HOSE BARB	30682-6-6	1
A13	ADAPTER, -12 SAE ORB M, -12 SAE ORB M	C5314X12X12	1
A14	ADAPTER, 5/8-18 INV FLARE TO -6 AN	N-3115-06-06	1
A15	ADAPTER, 11/16-18 INV FLARE TO -6 AN	N-3115-06-07	1
E1	ELBOW 90° LONG -8 SAE ORB M, -6 JIC M	6-8 CC5OX-S	2
E2	ELBOW 90° -8 SAE ORB M, -6 JIC M	C5515X6X8	3
E3	ELBOW 45° -10 SAE ORB M, -10 JIC M	10 V5OX-S	1
E4	ELBOW 45°, -16 SAE ORB M, -20 HOSE BARB	4603-20-16	1
E5	ELBOW 90° -6 JIC F, -6 HOSE BARB	33982-6-6	1
E6	ELBOW 90° -12 JIC M, -12 JIC M	12 WETX-S	1
E7	ELBOW 90° -6 JIC F, -6 JIC M	C5506X6	2
E8	ELBOW 90° -4 NPT M, -6 HOSE BARB	05706B-C04	3
E9	ELBOW 90° -10 SAE ORB M, -6 JIC M	C5515X6X10	2
E10	ELBOW 90° -4 SAE ORB M, -6 JIC M	N-2001-35-S-B	1

HOSE ENDS	
ID	**Description**
R1	-6 JIC, STRAIGHT FEMALE SWIVEL
R2	-6 ELBOW 90° SHORT JIC FEMALE SWIVEL
R5	-10 JIC, STRAIGHT FEMALE SWIVEL
R6	-10 ELBOW 45° JIC FEMALE SWIVEL
R7	-8 JIC, STRAIGHT FEMALE SWIVEL
R8	-12 JIC, STRAIGHT FEMALE SWIVEL
R9	-12 ELBOW 90° SHORT JIC FEMALE SWIVEL
R10	-6 ELBOW 90° LONG JIC FEMALE SWIVEL

HOSES		
ID	**Part Number**	**Qty**
H1	TF-1038-07-22.8	1
H2	TF-1038-07-24.3	1
H3	TF-1038-07-30.5	1
H4	TF-1038-04-23.3	1
H5	TF-1080-06-07.3	1
H6	TF-1038-23-22.3	1
H7	TF-1038-42-50.2	1
H8	TF-1038-42-37.7	1
H9	TF-1038-42-33.2	1
H10	TF-1038-49-27.6	1
H11	TF-1038-42-34.3	1
H12	TF-1038-04-46.3	1
H13	TF-1038-42-59.8	1
H14	TF-1038-42-57.3	1
H15	TF-1080-06-55.3	1
H16	TF-1080-06-54.5	1
H17	TF-1038-42-59.0	1
H18	TF-1038-18-57.3	1
H19	TF-1038-42-33.5	1
H20	TF-1038-42-52.5	1
H21	TF-1038-42-55.5	1
H22	TF-1038-42-65.3	1
H23	TF-1080-06-12.8	1
H24	TF-1143-20-47.0	1
H25	TF-1038-48-29.8	1

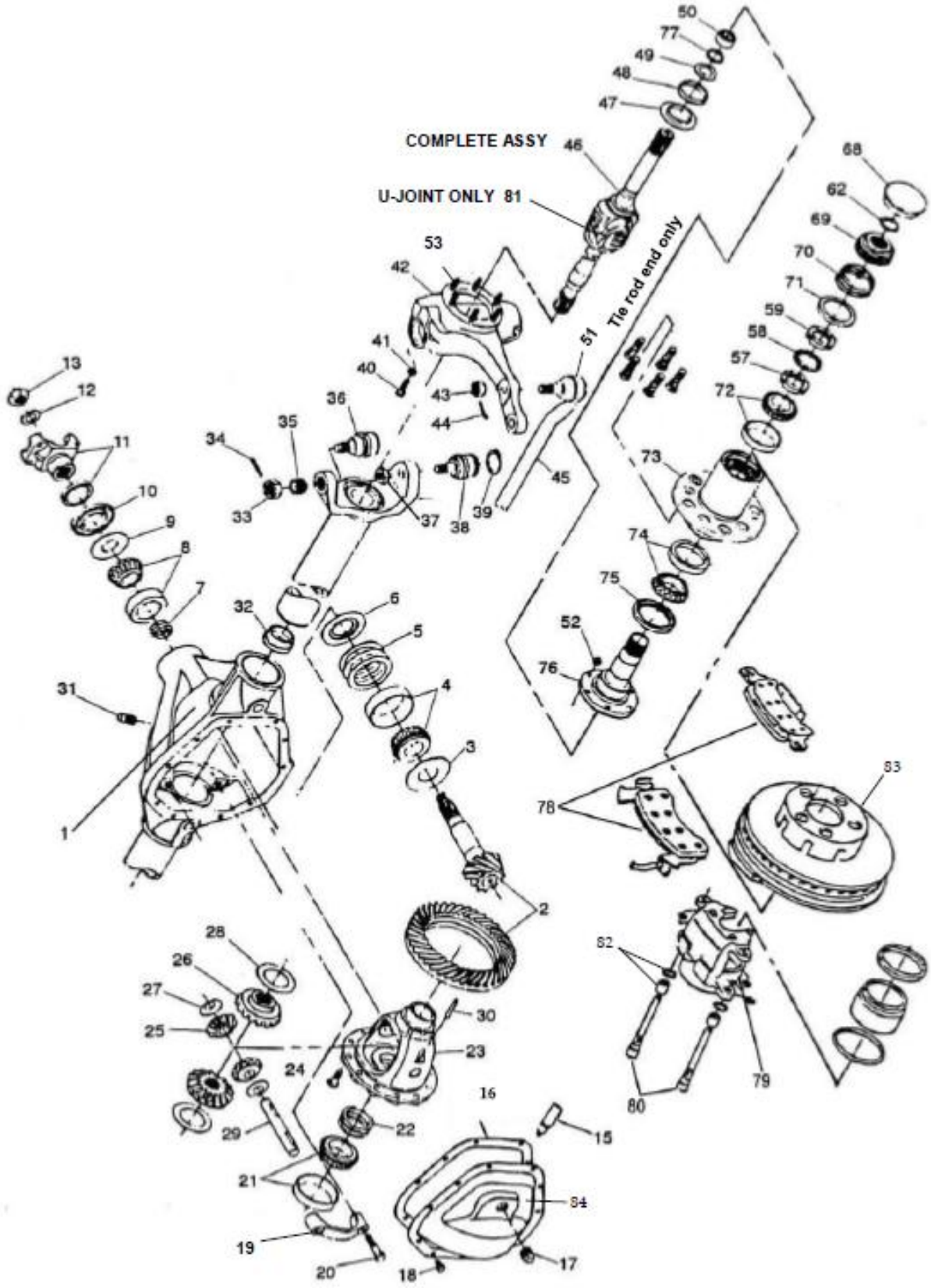


APPENDIX II

Axle Service Parts

Axles

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE (ALL WHEEL DRIVE)



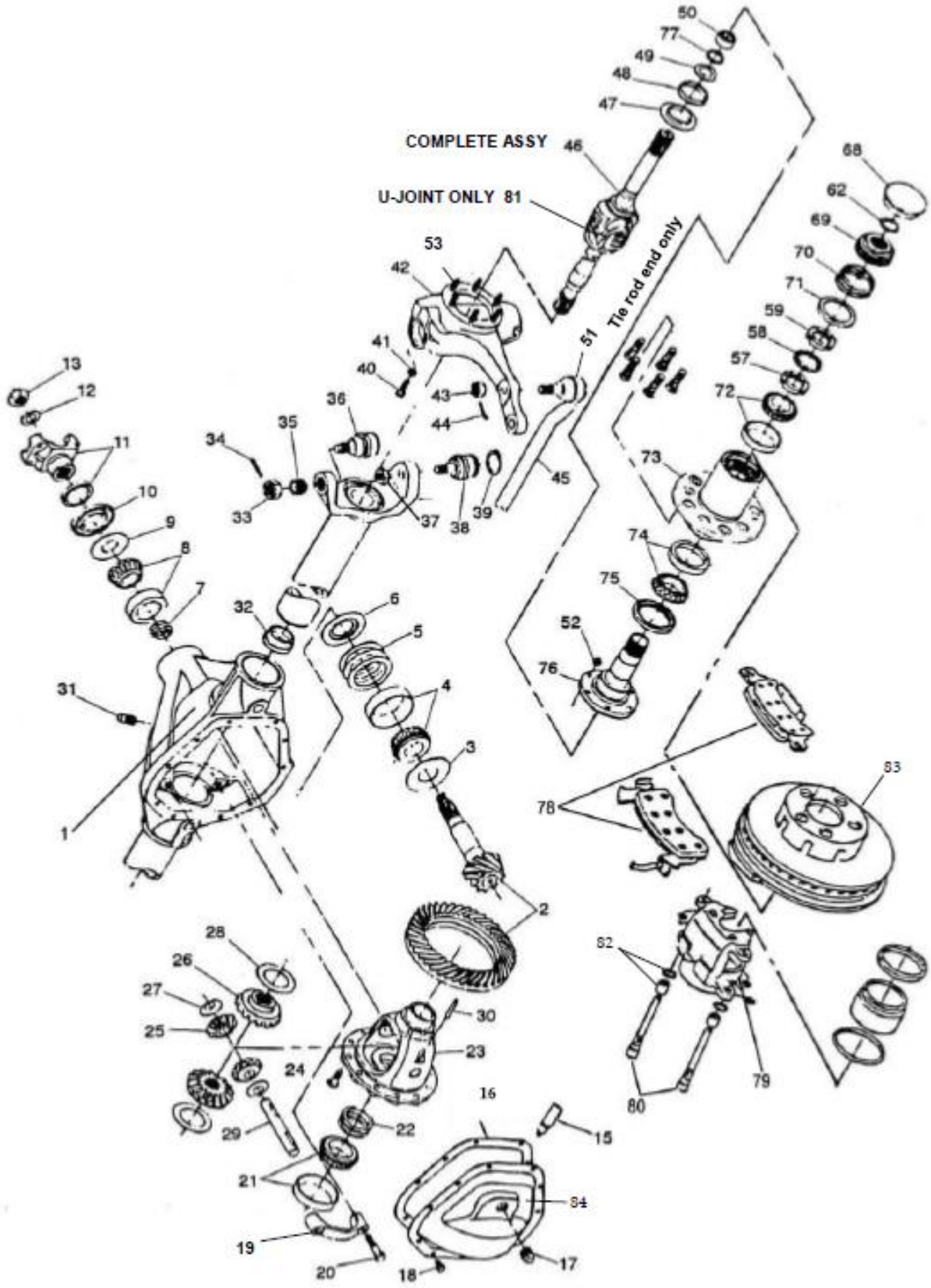
Axles

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE (ALL WHEEL DRIVE)

Item	Part Number	Qty	Description
1	Z-9813	1	COMPLETE AXLE ASSEMBLY
2	22404X	1	GEAR & PINION ASSEMBLY
3	30764	1	SLINGER-PINION OIL INNER
4	706031X	KIT	INNER PINION BEARING
5	706617X	KIT	SHIM-PINION ADJ INC ITEMS 5,7,12,13,15,15A
6	30765	1	BAFFLE-PINION OIL
7	706617X	KIT	SEE ITEM 5
8	706030	KIT	OUTER PINION BEARING & RACE
9	13575	1	SLINGER-PINION OIL OUTER
10	39118	1	SEAL-OIL
11	345761X	1	END YOKE ASSEMBLY
12	30186	1	WASHER-PINION NUT
13	30185	1	NUT-PINION
15	82180	AR	RTV SEALANT
16	34685	1	GASKET
17	36472	1	PLUG-COVER PLATE
18	34279	10	SCREW-FLANGE HD
19	N/A	2	CAP DIFFERENTIAL BEARINGNOT SERVICED SEPERATELY
20	48632-1	2	1/2-13 X 2.25 GRD8 HEX BOLT
21	706032X	KIT	DIFFERENTIAL BEARING & RACE
22	706618X	KIT	DIFFERENTIAL SHIM INC ITEMS 22,15 &15A
23	25806X	1	CASE-DIFFERENTIAL ASSY
	32684	1	CASE-DIFFERENTIAL
24	41221	10	BOLT-DRIVE GEAR
25	17717	2	PINION-DIFFERENTIAL
26	706027X	2	GEAR-DIFF KIT INC ITEMS 15A & 24-29
27	13338-3	2	THRUST WASHER DIFFERENTIAL PINION
28	32121	2	THRUST WASHER DIFFERENTIAL GEAR
29	39194	1	SHAFT-DIFFERENTIAL
30	13449	1	PIN-ROLL
31	16979	1	VENT
32	36352	2	SEAL & GUIDE-SHAFT
33	44101	2	NUT-SLOTTED
34	500024-8	2	PIN-COTTER
35	35417	2	RING-ADJUSTING
36	40112-1	1	SOCKET ASSEMBLY-UPPER
37	35566	2	NUT-LOCK
38	40113-1	1	SOCKET ASSEMBLY-LOWER
39	35928	1	RING-SNAP

Axles

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE (ALL WHEEL DRIVE)



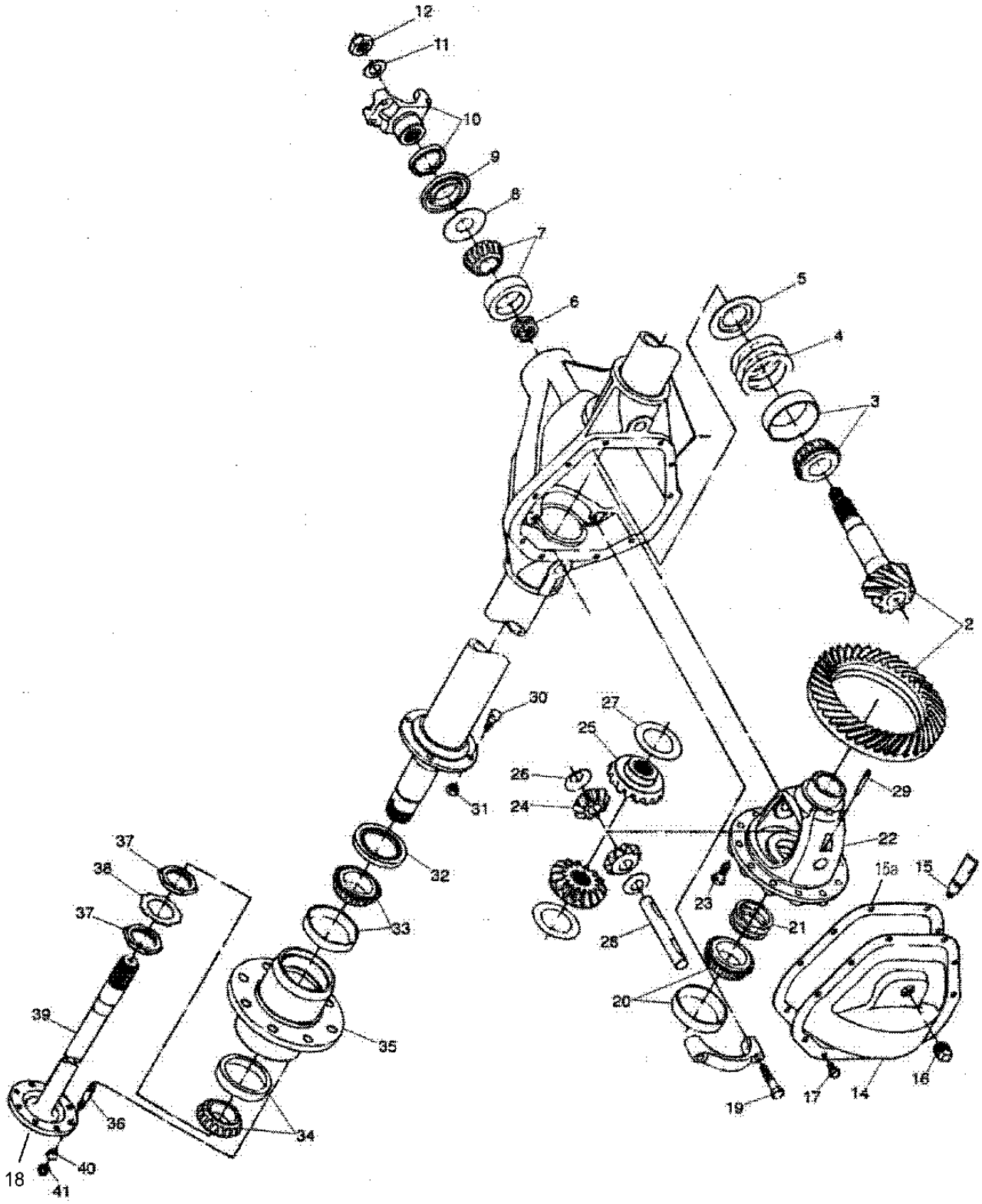
Axles

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE (ALL WHEEL DRIVE)

Item	Part Number	Qty	Description
40	310026-2	2	BOLT-STOP
41	500381-3	2	NUT-LOCK
42	706653X	KIT	STEERING KNUCKLE L/H, INCLUDES ITEMS 33-39,42 & 53
42	706652X	KIT	STEERING KNUCKLE R/H, INCLUDES ITEMS 33-39,42 & 53
43	44101	2	NUT-SLOTTED
44	500024-4	2	PIN-COTTER
45	044TR115-16X	1	TIE ROD ASSEMBLY
46	660091-18	2	SHAFT & JOINT ASSY INC ITEM 47
47	36364	1	SLINGER
48	38128	2	SEAL-OIL
49	38106	2	SPACER
50	550759	2	BEARING-NEEDLE
51	044TR119	2	TIE ROD END ONLY FOR ITEM 45
52	500381-3	12	NUT-LOCK FOR ITEM 53
53	36326-2	12	STUD FOR ITEM 42
57	21588X	2	SPINDLE NUT
58	36569	2	LOCK-RETAINING NUT
59	31139	2	NUT-SPINDLE
62	31624	2	RING-SNAP
68	31552	2	CAP-HUB
69	42667	2	GEAR-AXLE DRIVE
70	35218	2	SPRING PRESSURE
71	32589	2	PLATE-SPRING RETAINING
72	706111X	KIT	OUTER WHEEL BEARING & RACE
73	044HU103	2	HUB & ROTOR ASSEMBLY
74	706690-X	KIT	INNER WHEEL BEARING & RACE
75	36366	2	AXLE SEAL
76	706570	KIT	SPINDLE ASSEMBLY INCLUDES ITEMS 48,49,50,77 & 76
	706527X	KIT	SPINDLE SEAL & BEARING INCLUDES ITEMS 50,77,48 & 49
77	36361	1	SEAL-OIL
78	RD52	1 SET	BRAKE PAD SET
79	18009659	1	CALIPER WITHOUT PADS -R/H
79	18009658	1	CALIPER WITHOUT PADS-L/H
79	044WC101-1	1	CALIPER ASSY WITH PADS L/H
79	044WC101-2	1	CALIPER ASSY WITH PADS R/H
80	5468226	1SET	ANCHOR BOLTS
81	5-297-1X	2	GREASABLE U-JOINT FOR ITEM 46
82	H5539	1	CALIPER BUSHING AND O-RING KIT
83	BD60427	2	ROTOR

Axles

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE



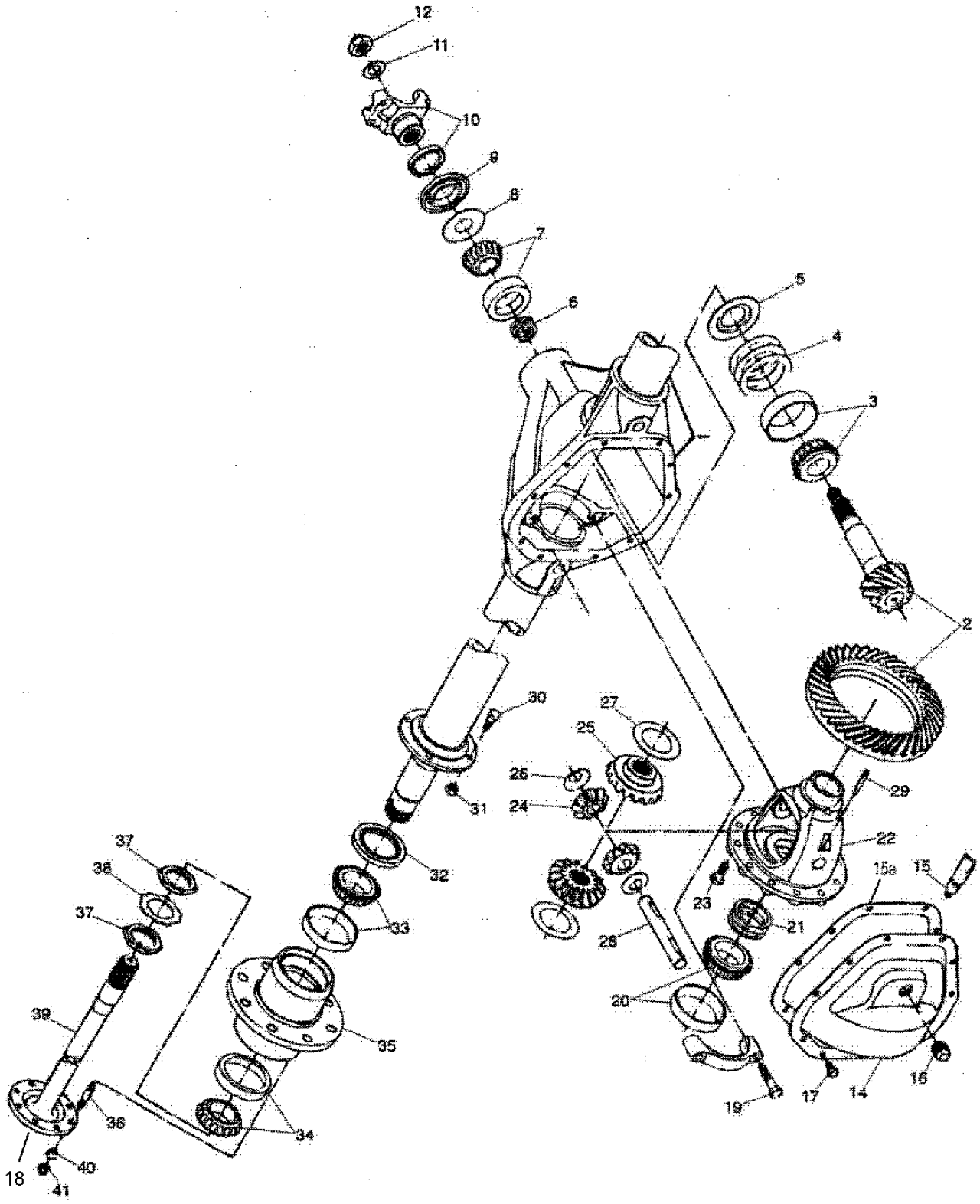
Axles

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE

Item	Part Number	Qty	Description
	H-4236	1	COMPLETE AXLE ASSEMBLY
2	706033-10X	KIT	DRIVE GEAR & PINION
3	706046X	KIT	INNER PINION BEARING & RACE
4	706672X	KIT	SHIM-DRIVE PINION ADJUSTING
5	30765	1	BAFFLE-PINION BEARING
6	706672X	KIT	SHIM-PINION BEARING ADJUSTING
7	706045X	KIT	OUTER PINION BEARING & RACE
8	30273	1	SLINGER-PINION BEARING
9	38427	1	SEAL-PINION
10	345731X	1	END YOKE ASSEMBLY
11	30275	1	WASHER-PINION NUT
12	30271	1	NUT-PINION
14	707106X	1	COVER ASSEMBLY
15	82180		RTV SEALANT
15a	34687	1	COVER GASKET
16	98785	1	PLUG-PIPE SLOTTED
17	34822	10	SCREW-FLANGE HD
18	39697	1	AXLE SHAFT GASKET
19	48632-1	2	1/2-13 x 2.25 GRD8 BOLT BEARING CAP
20	706047X	KIT	BEARING & RACE
21	706673X	KIT	SHIM-DIFFERENTIAL BEARING
22	706669X	KIT	CASE-DIFFERENTIAL
23	30266	10	BOLT-DRIVE GEAR
24	SEE KIT ITEM 43 OR 44	KIT	PINION-DIFFERENTIAL
25	SEE KIT ITEM 43 OR 44	KIT	GEAR-DIFFERENTIAL
26	SEE KIT ITEM 43 OR 44	KIT	THRUST WASHER-PINION
27	SEE KIT ITEM 43 OR 44	KIT	THRUST WASHER-GEAR
28	SEE KIT ITEM 43 OR 44	KIT	SHAFT-DIFFERENTIAL
29	500598-21	1	LOCK-DIFFERENTIAL
30	36253	8	BOLT-BRAKE MANUFACTURING
31	36805	8	NUT-BRAKE MANUFACTURING
32	36240	2	SEAL-OIL
33	706071X	KIT	INNER WHEEL BEARING
34	706072X	KIT	OUTER WHEEL BEARING
35	060HU101-1X	2	HUB & DRUM ASSEMBLY
36	36847	8	STUD-HUB

Axles

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE



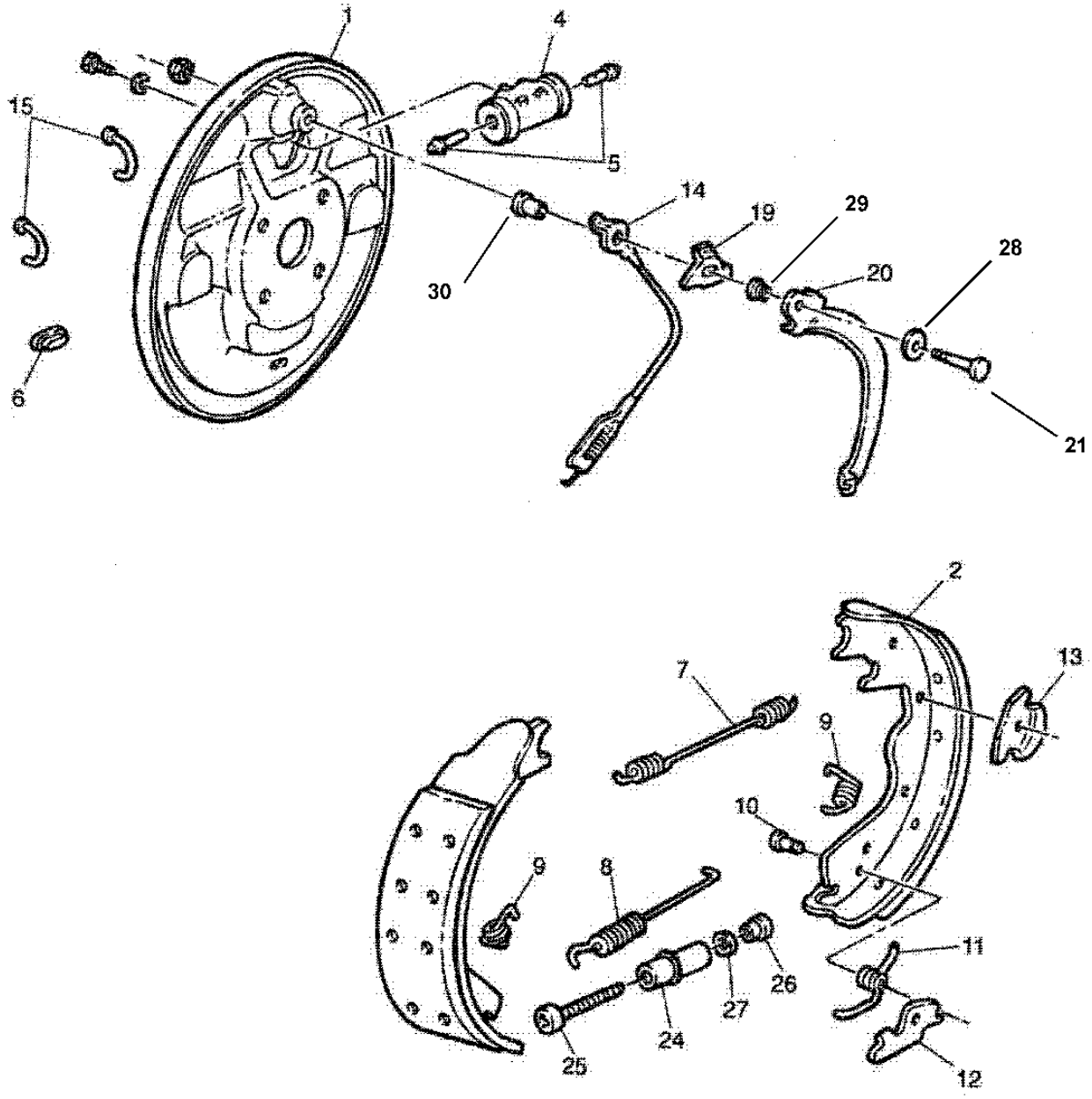
Axles

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE

Item	Part Number	Qty	Description
37	30636	4	NUT-SPINDLE
38	30637	2	LOCK WASHER WHEEL BEARING
39	34887-7	1	SHAFT-AXLE FLANGE LONG
	34887-10	1	SHAFT-AXLE FLANGE SHORT
40	31534	16	ADAPTER-STUD (CONE WASHER)
41	36805	24	NUT-LOCK
42	16979	1	VENT
43	706671X	1	DIFF PARTS (STD) INC 15, 21-23, 29
44	707084X	1	DIFF PARTS (LTD SLIP) INC 15, 21, 23, 24, 26, 28, 29, 43

Brakes

DRUM BRAKE ASSEMBLY—REAR



Brakes

PARKING BRAKE ACTUATOR ASSEMBLY

Item	Part Number	Qty	Description
1	A-TT4-00141	1	HAND BRAKE
2	NPN	4	SCREW-HEX CAP-5/16-18 X 1
3	NPN	4	WASHER-FLAT-5/16
4	NPN	4	NUT-LOCK-5/16-18
5	B-TT4-00145	1	CABLE PRIMARY
6	A-TT4-00146	1	BAR EQUALIZER
7	NPN	1	CLEVIS PIN
8	NPN	3	COTTER PIN
9	A-TT4-00151	1	PARKING BRAKE CABLE LEFT REAR
10	A-TT4-00150	1	PARKING BRAKE CABLE RIGHT REAR
11	NPN	1	SCREW-HEX CAP-14-20 X 1
12	NPN	1	WASHER-FLAT-1/4
13	NPN	1	NUT-LOCK-1/4-20
14	NPN	1	SCREW-HEX CAP-1/4-28 X 1
15	NPN	1	CABLE CLAMP PLATE
16	NPN	1	CABLE CLAMP HANDLE
17	NPN	2	NUT-LOCK-1/4-28
18	NPN	2	CABLE CLAMP
19	81008429	1	CONTACT PIN
20	82050000	1	PROXIMITY SENSOR
21	82066700	1	MOUNTING SCREW
22	AE-OPT-0069	1	HAND BRAKE "ON" WARNING (OPTIONAL)
23	NPN	2	CLEVIS PIN



APPENDIX III

J1939 Engine Codes

Below is the list of common diagnostic codes that the engine can transmit. Please cross reference the SPN (Suspect Parameter Number), and FMI (Failure Mode Identifier) from the vehicle display module with this list.

SPN	FMI	P Code	Name	Description
168	3	P0563	VBBH	Vehicle system voltage too high (> 16 V)
168	4	P0562	VBBL	Vehicle system voltage too low (< 8 V)
3509	3	P0643	VCC1H	Battery 5V reference 1 circuit high (5V power supply for sensor)
3509	4	P0642	VCC1L	Battery 5V reference 1 circuit low (5V power supply for sensor)
3510	3	P0653	VCC2H	Battery 5V reference 2 circuit high (5V power supply for sensor)
3510	4	P0652	VCC2L	Battery 5V reference 2 circuit low (5V power supply for sensor)
110	3	P0118	THWH	Coolant temperature sensor signal too high
110	4	P0117	THWL	Coolant temperature sensor signal too low
110	2	P0116	THWP	Coolant temperature sensor performance invalid
105	3	P0113	THAH	Air temperature sensor signal too high
105	4	P0112	THAL	Air temperature sensor signal too low
174	3	P0183	THFH	Fuel temperature (w/pump) sensor signal too high
174	4	P0182	THFL	Fuel temperature (w/pump) sensor signal too low
157	9	P0191	PCP	C/Rail press. Sensor signal keeping the middle range
157	2	P0191	PCO	PC sensor offset diagnosis (drifted high or low)
157	14	P0191	PCONOX	PC sensor offset diagnosis for NOX requirement (drifted high or low)
157	20	P0191	PCOH	PC sensor high offset
157	3	P0193	PCH	C/Rail pressure sensor signal too high
157	4	P0192	PCL	C/Rail pressure sensor signal too low
108	3	P2229	PATMH	Atmosphere pressure sensor signal too high
108	4	P2228	PATML	Atmosphere pressure sensor signal too low
102	3	P0238	PIMH	Boost pressure sensor signal too high
102	4	P0237	PIML	Boost pressure sensor signal too low
102	2	P0236	PIMP1	Boost pressure sensor performance invalid
91	3	P0123	ACCP1H	Accelerator pedal sensor No.1 signal too high
91	4	P0122	ACCP1L	Accelerator pedal sensor No.1 signal too low
29	3	P0223	ACCP2H	Accelerator pedal sensor No.2 signal too high
29	4	P0222	ACCP2L	Accelerator pedal sensor No.2 signal too low
28	3	P0228	PTOPH	Accelerator pedal for ASC (PTO) sensor signal too high
28	4	P0227	PTOPL	Accelerator pedal for ASC (PTO) sensor signal too low
2791	3	P0406	LEGRH	EGR (exhaust gas recirculation) lift sensor signal too High
2791	4	P0405	LEGRL	EGR (exhaust gas recirculation) lift sensor signal too low
84	8	P0503	SPDH	Vehicle speed sensor frequency too high
84	5	P0502	SPDL	Vehicle speed sensor input open/ short
84	2	P0501	SPDSG	Vehicle speed sensor signal invalid
249	8	P0337	NENOP	Crank position (CKP) sensor no pulse
249	2	P0336	NEPUM	Crank position (CKP) sensor performance invalid
637	8	P0342	GNOP	Camshaft position (CMP) sensor no pulse
637	2	P0341	GPUM	Camshaft position (CMP) sensor performance invalid
190	9	P0385	NEGNON	Crank position and camshaft position sensor no pulse
1397	3	P2148	BSTWV1	COM1 Injector drive system output short to BATT Injector1 or Injector3 (4cyl engine)/Injector2 (3cyl engine) output short to BATT
1397	4	P2147	GSTWV1	COM1 Injector drive system output short to GND Injector1 or Injector3 (4cyl engine)/Injector2 (3cyl engine) output short to GND

SPN	FMI	P Code	Name	Description
1397	5	P2146	NCCOM1	COM1 Injector drive system output open load both Injector1 and Injector4 (4cyl engine)/Injector2 (3cyl engine) open load
1393	5	P0201	NCTWV1	Injector1 output open load injector coil open
1394	5	P0205	NCTWV2	Injector3 output open load injector coil open
1395	5	P0203	NCTWV3	Injector4 (4cyl engine)/Injector2 (3cyl engine) output open load injector coil open
1396	5	P0206	NCTWV4	Injector2 (4cyl engine) output open load injector coil open
167	31	P0611	LCHG	Capacitor charge-up circuit malfunction injector (insufficient charge) within ECU
167	1	P0200	OCHG	Capacitor charge-up circuit malfunction injector (excessive charge)
1393	2	P0263	ANGSPD1	Engine angle speed error1 (Injector1)
1394	2	P0275	ANGSPD2	Engine angle speed error2 (Injector3)
1395	2	P0269	ANGSPD3	Engine angle speed error3 (Injector4 (4cyl engine)/Injector2 (3cyl engine))
1396	2	P0278	ANGSPD4	Engine angle speed error4 (Injector2)
2802	13	P1602	QRNOT	QR data is not written
2802	11	P0602	QRERR	QR data error
2802	9	P1601	ABNQR	QR definition error (definition concerning QR correction is not right)
94	3	P0629	BSSCV	SCV(+) output short to BATT SCV(-) output short to BATT
94	6	P0627	DRSCV	SCV(+) output open load/short to GND SCV(-) output open load/short to GND SCV coil open/short
157	0	P0088	PCEX3	C/Rail pressure exceeds hi upper limit3
157	31	P1220	PCOVR	C/Rail pressure control cannot achieve target fuel
157	1	P1221	PCUND	C/Rail pressure falls below the control limit of the target pressure
157	16	P2293	PCEX2	C/Rail pressure exceeds hi upper limit2
157	15	P1217	PCEX1	C/Rail pressure exceeds hi upper limit1
156	14	P1219	PLACT	P/L (pressure limiter) activated
97	2	P2269	WGTHR	Water in fuel filter failure
1382	16	P1222	FIPRES1	Fuel filter diagnosis level
1382	0	P1223	FIPRES2	Fuel filter diagnosis level 2
1127	0	P0234	TBOPH	Boost pressure sensor exceeds upper limit
1127	1	P0299	TBOPL	Boost pressure sensor exceeds lower limit
626	4	P0541	GRELGD	Glow relay output open load/short to GND
626	3	P0542	GRELBT	Glow relay output short to BATT
430	3	P0615	STSWBT	Starter switch short to BATT
598	2	P0704	CLSW	Clutch switch circuit malfunction (manual transmission only)
604	2	P0850	NEUTSW	Neutral switch circuit malfunction (manual transmission only)
100	1	P0524	POILDN	Engine oil pressure low
110	0	P0217	THWOT	Coolant temperature exceeds upper limit
190	0	P0219	NEOR	Engine over speed condition
2802	31	P0607	SCPU	CPU fault watchdog IC fault
2802	12	P0606	MCPU	CPU fault main CPU fault
2802	14	P0601	FROM	Check sum error - flash area
1083	31	U0101	CANOPENGENU	CAN bus-line open from general unit
1083	19	U0073	CANB1	CAN1 node error
1084	19	U1001	CANB2	CAN2 node error
1639	5	P0694	CFANLBT	Coolant fan low speed relay short to battery

SPN	FMI	P Code	Name	Description
1639	6	P0693	CFANLGD	Coolant fan low speed relay short to GND
1639	3	P0696	CFANHBT	Coolant fan high speed relay short to battery
1639	4	P0695	CFANHGD	Coolant fan high speed relay short to GND
1639	31	P0480	EFAN	Electric fan open load/short to GND/short to battery
107	2	P2280	AFC	Air filter clogging error
107	3	P2280	PAFDFH	Air filter differential pressure sensor signal too high
107	4	P2280	PAFDFL	Air filter differential pressure sensor signal too low
96	3	P0463	FLEVH	Fuel level sensor signal too high
96	4	P0462	FLEVL	Fuel level sensor signal too low
1762	3	P0935	PHYDH	Hydraulic pressure sensor signal too high
1762	4	P0934	PHYDL	Hydraulic pressure sensor signal too low
156	2	P1219	PLVHIRP	Multiple high rail pressure error/ Engine stall after PLV opening
1349	2	P268B	IPMPSTDYNOT	Pump learning uncompleted
2791	14	P0404	EGRBM	EGR battery/motor failure (for CAN)
27	7	P0400	EGRFPD	EGR feedback/position sensor/Dynamic range failure (for CAN)
2791	2	U0411	EGRNTNR	EGR no transmission/not received failure (for CAN)
2791	31	P2425	EGRT	EGR valve temperature failure (for CAN)
2791	7	P0488	EGRVI	EGR valve stuck/initialization failure (for CAN)
28	20	P2123	PTOP2H	Accelerator pedal for ASC (PTO) sensor 2 signal too high
28	21	P2122	PTOP2L	Accelerator pedal for ASC (PTO) sensor 2 signal too low
2791	13	P0403	EGRCLEAN	EGR Cleaning failure (valve stuck open/poppet much lower than normal)
3349	9	U0107	TSC1TMERR	TSC1 Time out error
3349	10	U0408	TSC1RC	TSC1 Rolling count test
3349	2	U0408	TSC1CS	TSC1 Checksum test
4082	3	P0232	ELPUMPBT	Electric lift pump relay short to battery
4082	4	P0231	ELPUMPGD	Electric lift pump relay short to GND
430	5	P0617	STARELBT	Starter relay short to battery
430	4	P0616	STARELGD	Starter relay short to GND
190	2	P0016	NEGUM	Crankshaft and Camshaft synchronous error

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APPENDIX IV

Super Boost-All
Manual and Parts List

TRONAIR®

APPENDIX V

Mi-T-M
Engine Driven 30/80 Gallon Industrial Air Compressor
Operator's Manual