

OWNER'S OPERATION & MAINTENANCE MANUAL

HERCULES

COMMERCIAL FRONT LOADER



Models:

FLOOXX35SE	FLLOXX35SE
FLOOXX47SE	FLLOXX37SE
FLOOXX40SE	FLLOXX40SE
FLOOXX44SE	FLLOXX44SE
FLFOXX35SE	FLFOXX40SE
FLFOXX37SE	FLFOXX44SE

'J' Arms: 6,000; 8,000; 10,000 lbs.

'K' Arms: 8,000; 10,000 lbs.

'L' Arms: 8,000 lbs.



PO Box 790 – 200 Ladish Rd.
Cynthiana, KY 41031
800-331-0136

FLF080J40SE

FL=FRONT LOADER

HOPPER FLOOR

0 = CLASSIC

F = FLAT

L = 10GA BODY SIDE

USAGE

0 = COMMERCIAL

L = LOW TECH RESD

ARM CAPACITY

6 = 6K

8 = 8K

1 = 10K

SPECIAL ARMS

0 = STANDARD

TYPE OF OFF LOADING
E = EJECT

HOPPER DOOR

S = SLIDING

O = NO DOOR

CAPACITY

35 = 35 YD

37 = 37 YD

40 = 40 YD

44 = 44 YD

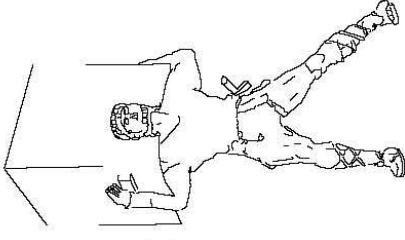
ARM SERIES

J = 3" WIDE 6,8&10 (2" PINS)

K = CONDOR ARMS

L = 2-POSITION FORKS CYL

M = 2.5" WIDE 6,8&10 (2" PINS)
W/2-POSITION FORKS CYL



WARNING

All applicable OSHA regulations must be understood and observed when operating or before performing any service or maintenance on the E-Z Pack product.

REFERENCED: Public Law 91-596, December, 1970, 84 Statute 1593 (including among others, but not limited to the following), Section 5.

(a) Each employer -

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

SAFETY NOTICE

Proper service and repair are important to the safe, reliable operation of E-Z Pack products. Operational and servicing procedures recommended by E-Z Pack are in this manual and are effective for proper use of this product. Some of these operations may require the use of tools or blocking devices specifically designed for the purpose. Special tools should be used when and as recommended. It is important to note that warnings against the use of specific operations or methods that can damage the product or render it unsafe are stated in this manual. It is also important to understand these warnings are not exhaustive. E-Z Pack can not possibly know, evaluate, and advise the service trade of all conceivable ways in which operation or service might be performed or of the possible hazardous consequences of each method. Accordingly, anyone who uses operational procedures, service procedures, or tools whether recommended by E-Z Pack or not must first satisfy himself thoroughly that neither his safety nor the product safety will be jeopardized by the methods he shall select.

IMPORTANT SAFETY NOTICE

This E-Z Pack® Front Loader conforms to the American National Standard for Refuse Collecting and Compacting Equipment – Safety Requirements Per ANSI Z245.1-1992

It is essential that everyone associated in any way with the E-Z Pack Front Loader thoroughly understand and apply the contents of this American National Standard.

It should be noted that this standard is regularly reviewed and updated. It is the owner's responsibility to obtain updated copies of this ANSI standard for reference.

New copies of this standard can be obtained by contacting:

WASTEC - Waste Equipment Manufacturers Association 4301 Connecticut Avenue, NW
Suite 300 Washington DC 20008

Any person reconstructing or modifying this front loader must do so in accordance with sections 4.3 and 5.2 of ANSI Z245.1-1992 or subsequent updates to such standard.

LOCKOUT / TAGOUT REQUIREMENTS

A LOCKOUT / TAGOUT PROCEDURE FOR THIS FRONT LOADER HAS BEEN ESTABLISHED AND MUST BE FOLLOWED.

See detailed Lockout / Tagout procedures on page 4 of this manual.

If you are unfamiliar with the OSHA Lockout procedure or any safety requirements, please contact either your E-Z Pack distributor or E-Z Pack direct.



200 Ladish Rd. P.O. Box 790 Cynthiana, KY 41031

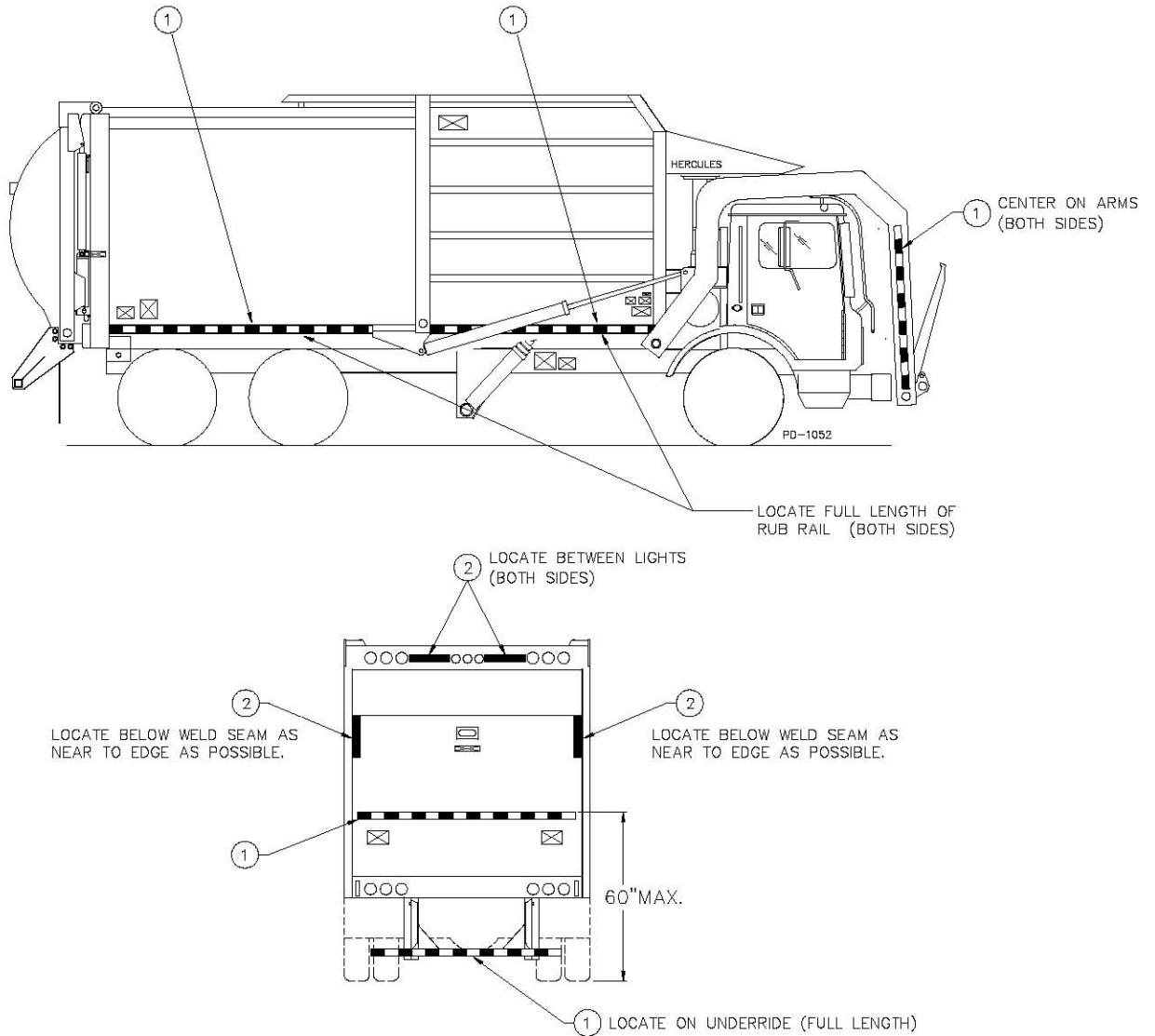
LOCKOUT / TAGOUT PROCEDURE

IT IS THE EMPLOYER'S RESPONSIBILITY TO ESTABLISH AND APPLY A "LOCKOUT / TAGOUT PROCEDURE" FOR ANY INSPECTION, REPAIRS, OR MAINTENANCE BEING DONE ON AN E-Z PACK MOBILE UNIT. LISTED BELOW IS OUR SUGGESTED PROCEDURE. THIS PROCEDURE IS NOT INTENDED TO REPLACE ANY "LOCKOUT / TAGOUT PROCEDURES" THAT YOU ARE CURRENTLY USING. IT IS ONLY TO BE USED AS A SUGGESTED GUIDELINE.

LOCKOUT / TAGOUT PROCEDURE

- . • Move the unit to firm level surface.
 - . • Position all components in travel position.
 - . • Set the parking brake. Make sure the brakes are working properly and holding the vehicle as required.
 - . • If packer unit has a power switch, switch to "OFF" position.
 - . • Shift into "Neutral" (or Park if provided) if equipped with an automatic transmission. If equipped with a manual transmission, put the unit in gear.
 - . • Shut off the engine.
 - . • Remove the ignition key and place in your pocket.
 - .o Multiple Lockout: If more than one person is working on or around the vehicle, the key must be controlled by the supervisor, who must ensure all personnel are safely clear before replacing the key.
 - . • Chock all drive wheels.
 - . • Switch the main battery disconnect to the "OFF" position.
 - . • Place a tagout locking device on the main battery disconnect
 - . • Place an "OUT OF SERVICE" sign on the steering wheel(s). This warns others that the unit is being worked on and not to start the engine.
 - . • Block any system that could move by inertia with an easily visible safety prop. (Open tailgate, lifted body, open hopper cover, elevated arms, etc.)
 - . • Disconnect the following items if any type of welding is required:
 - a. o Electronic Transmission (ECU)
 - b. o Electronic Engine (ECU)
 - c. o Battery
 - d. o E-Z Pack Controls (ECU)
1. Refer to manual for location of E-Z Pack harnesses to be disconnected

CONSPICUITY TAPE INSTALLATION (FRONT LOADER)

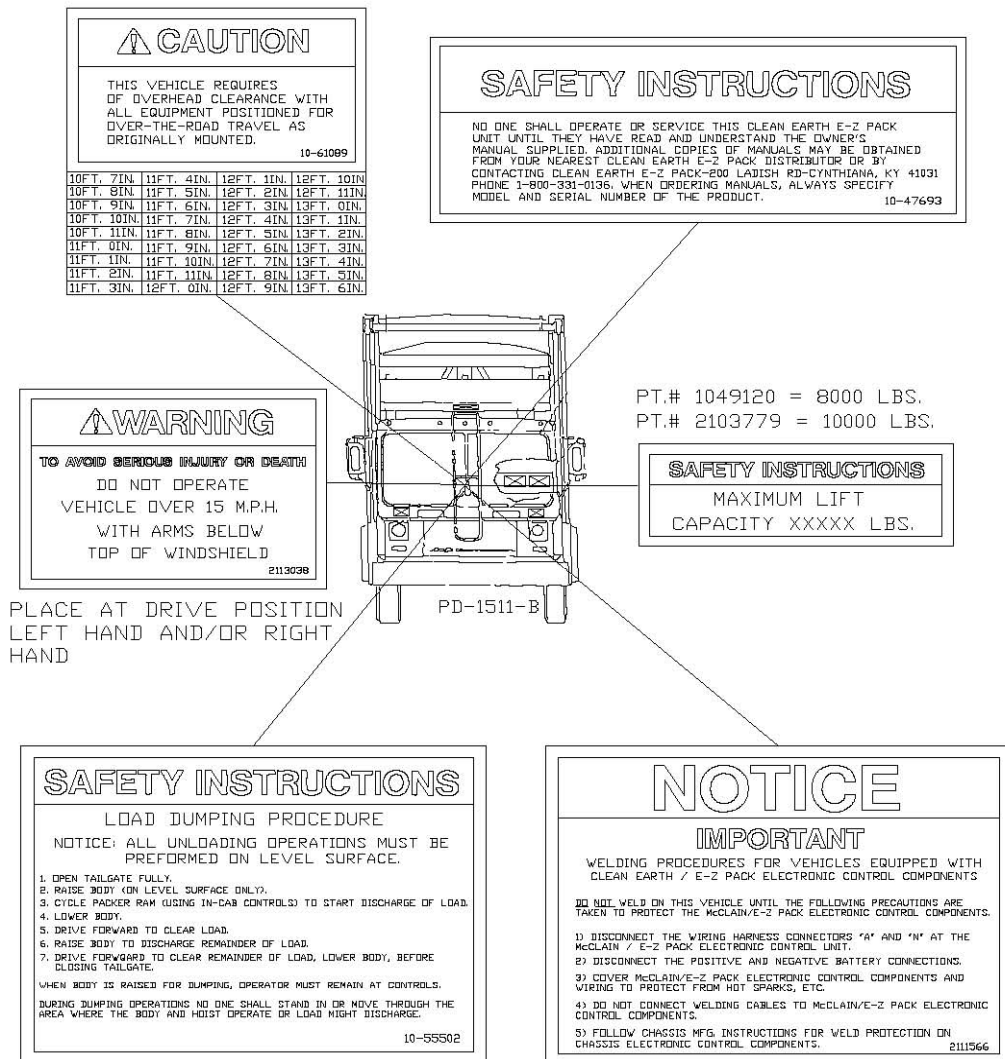


ITEM	PART NO.	DESCRIPTION	QTY.
	2047589000	Conspicuity Tape Installation Kit – Complete	1
1	1001882	Conspicuity Tape (Red & White) 56'	.373
2	1002200	Conspicuity Tape (White)	4

FRONT LOADER DECAL LOCATIONS (CAB)

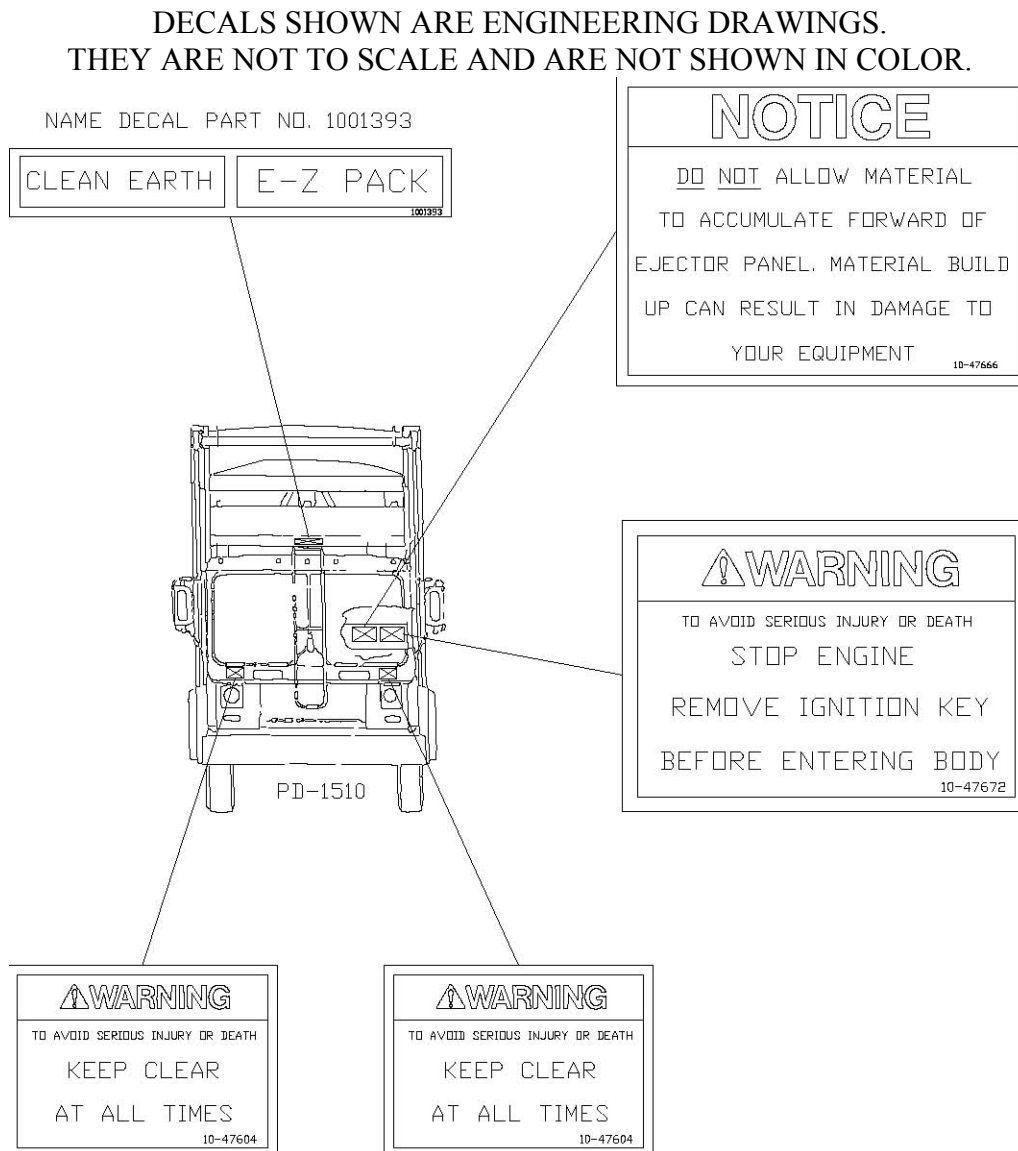
NOTICE: INSPECT UNIT DAILY, MAKING SURE ALL DECALS ARE IN PLACE AND ARE READABLE.

DECALS SHOWN ARE ENGINEERING DRAWINGS.
THEY ARE NOT TO SCALE AND ARE NOT SHOWN IN COLOR.



FRONT LOADER DECAL LOCATIONS (BODY FRONT & CAB FRONT)

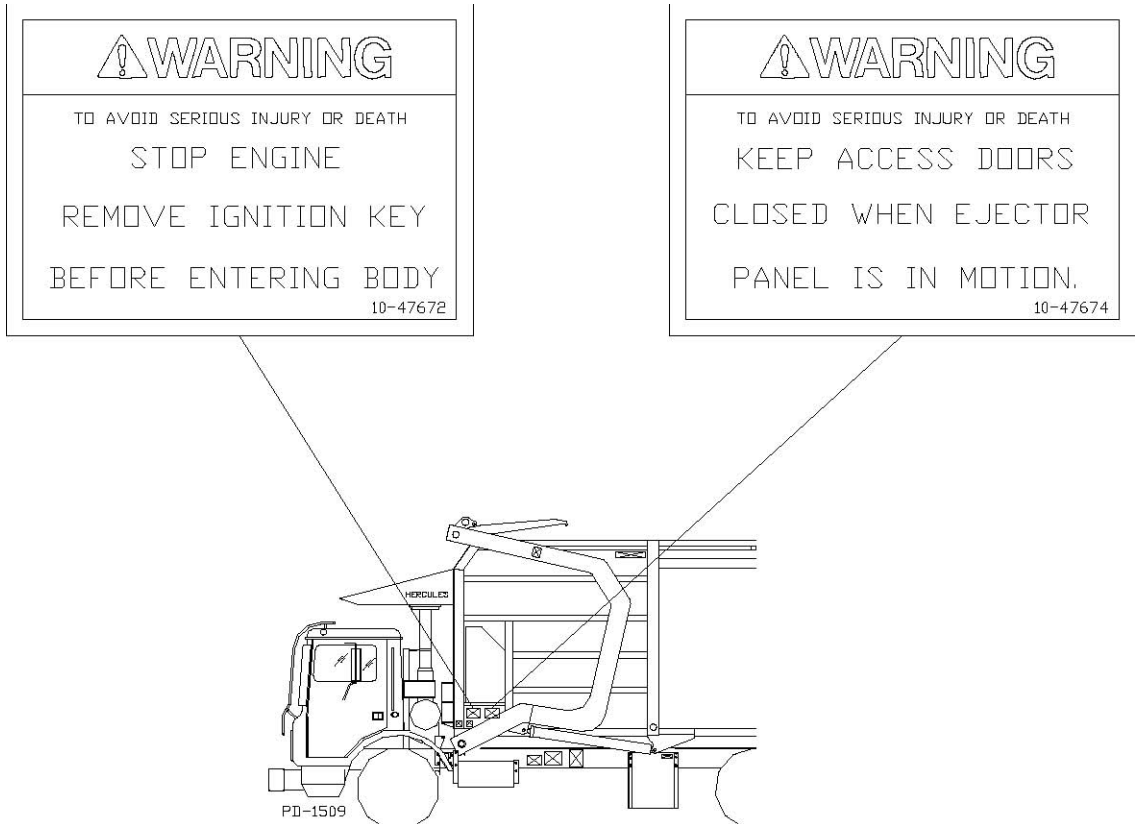
NOTICE: INSPECT UNIT DAILY, MAKING SURE ALL DECALS ARE IN PLACE AND ARE READABLE.



FRONT LOADER DECAL LOCATIONS (BODY FRONT STREETSIDE CORNER)

NOTICE: INSPECT UNIT DAILY, MAKING SURE ALL DECALS ARE IN PLACE AND ARE READABLE.

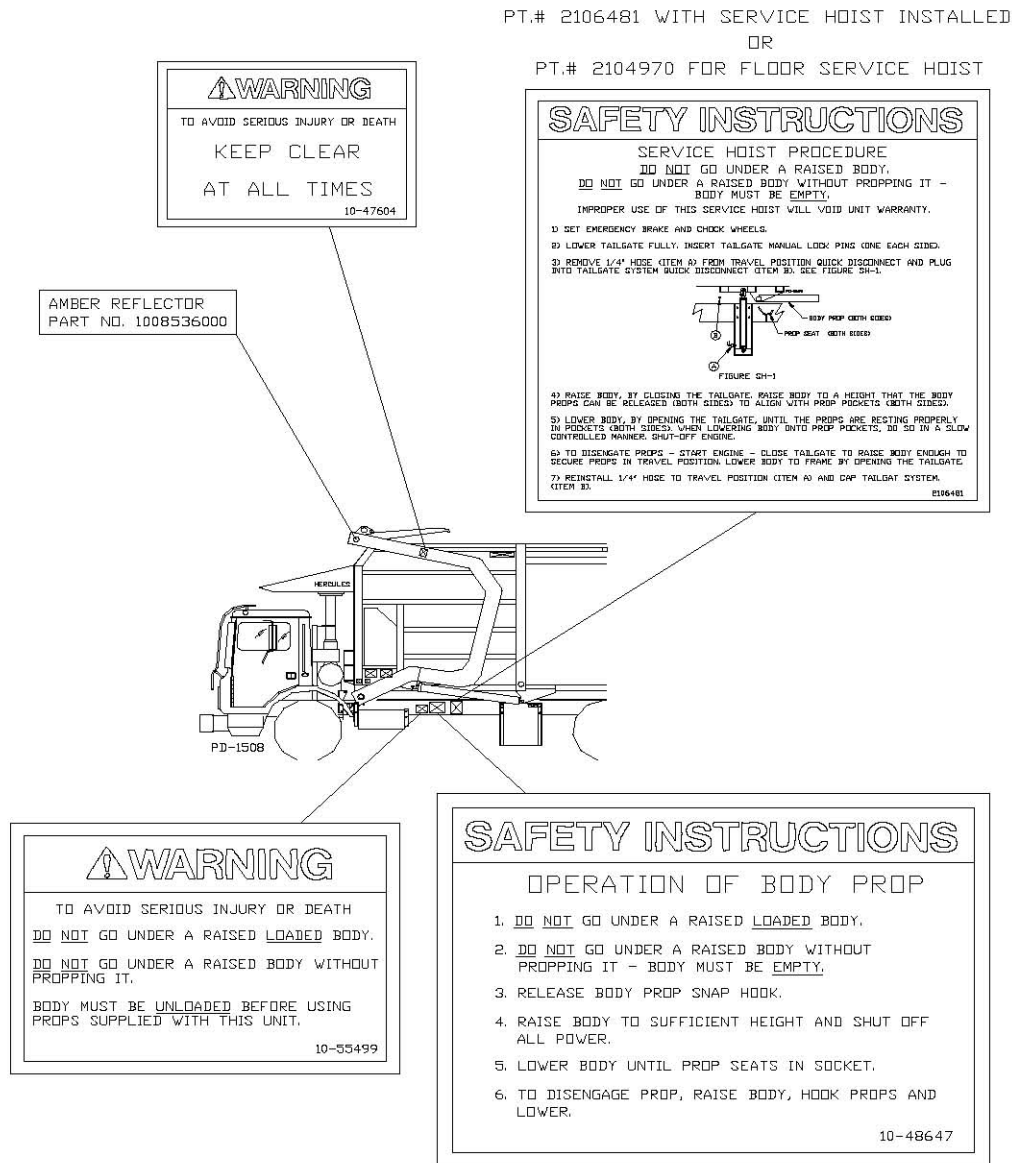
DECALS SHOWN ARE ENGINEERING DRAWINGS.
THEY ARE NOT TO SCALE AND ARE NOT SHOWN IN COLOR.



FRONT LOADER DECAL LOCATIONS (MID BODY STREETSIDE)

NOTICE: INSPECT UNIT DAILY, MAKING SURE ALL DECALS ARE IN PLACE AND ARE READABLE.

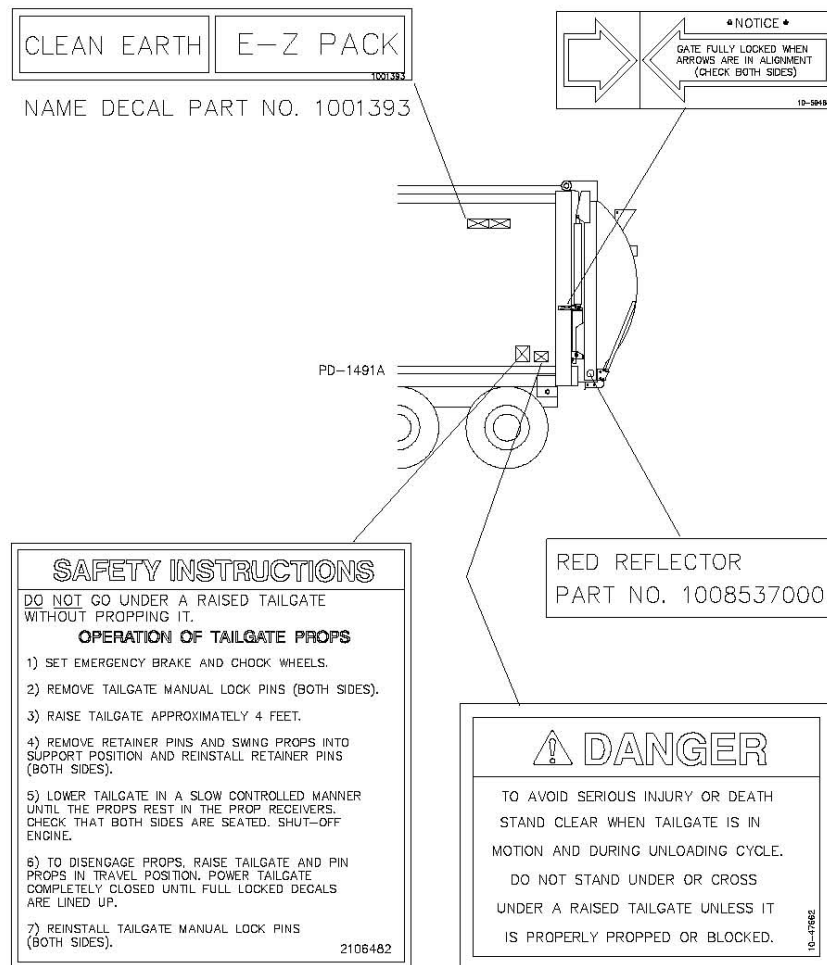
DECALS SHOWN ARE ENGINEERING DRAWINGS.
THEY ARE NOT TO SCALE AND ARE NOT SHOWN IN COLOR.



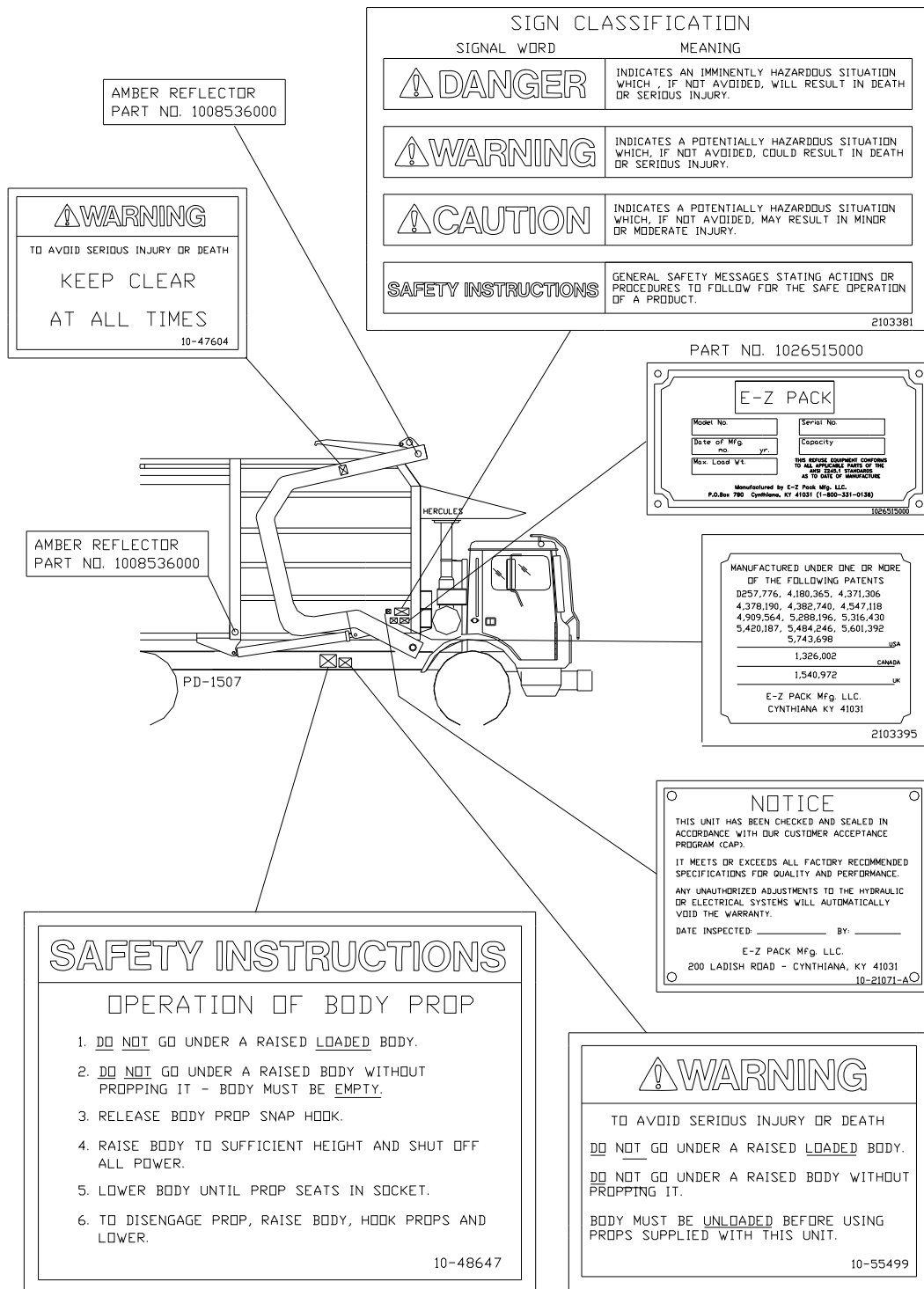
RECYCLER, FRONT & SIDE LOADER DECAL LOCATIONS (REAR OF BODY - STREETSIDE)

NOTICE: INSPECT UNIT DAILY, MAKING SURE ALL DECALS ARE IN PLACE AND ARE READABLE.

DECALS SHOWN ARE ENGINEERING DRAWINGS.
THEY ARE NOT TO SCALE AND ARE NOT SHOWN IN COLOR.

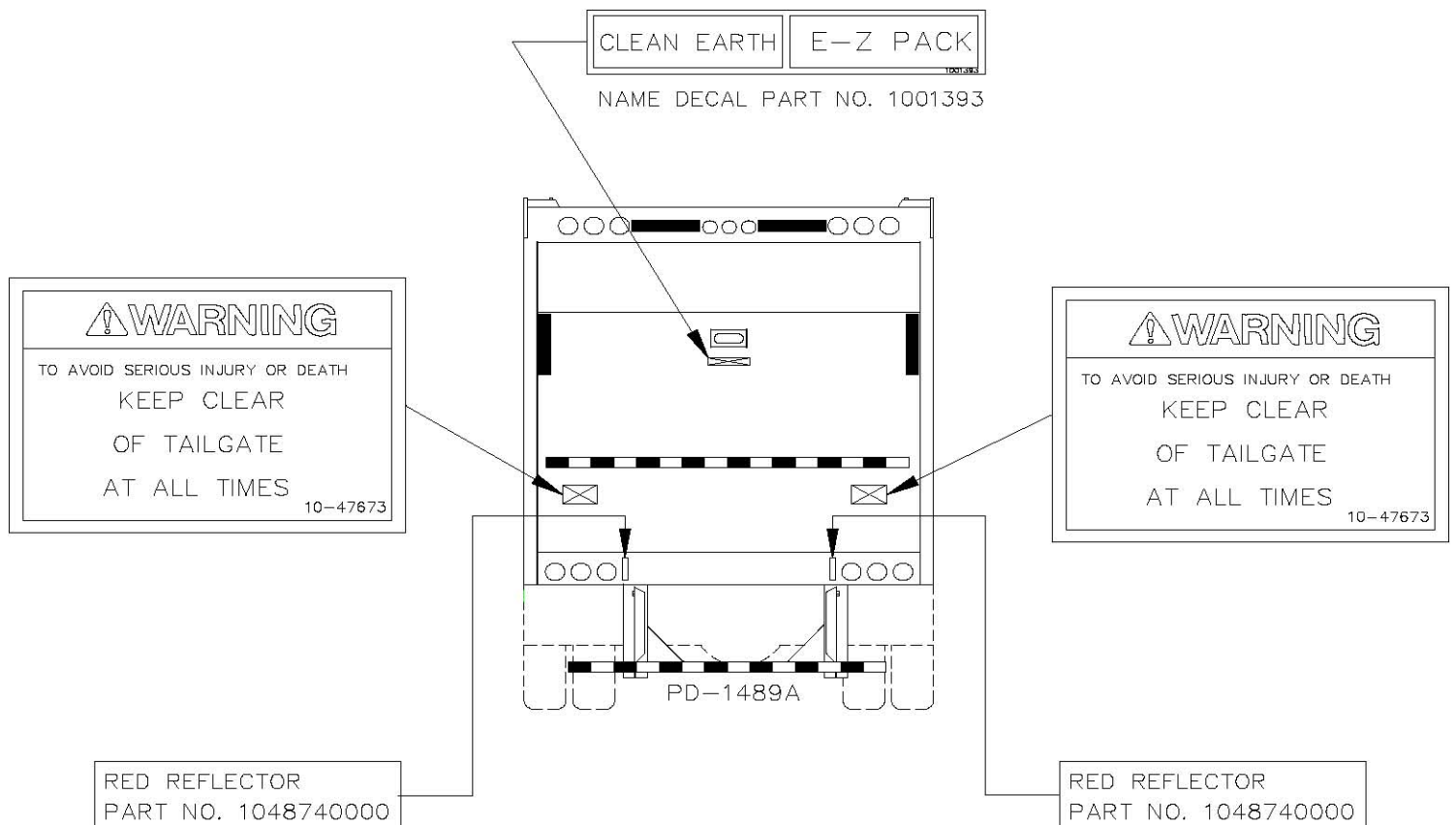


RECYCLER, FRONT & SIDE LOADER DECAL LOCATIONS (REAR VIEW OF TAILGATE)



NOTICE: INSPECT UNIT DAILY, MAKING SURE ALL DECALS ARE IN PLACE AND ARE READABLE.

DECALS SHOWN ARE ENGINEERING DRAWINGS.
THEY ARE NOT TO SCALE AND ARE NOT SHOWN IN COLOR.



FRONT LOADER DECAL KIT

ITEM	PART NO.	DESCRIPTION (PL-1512A)	QTY.
	2046067000	Decal Kit - Complete	1
1	1001393	Decal, Name - E-Z Pack	4
2	1002218	Decal, Smart Steel	1
3	2104508	Decal, Safety Instructions - Service Hoist	1
4	1026515000	Serial Number Plate	1
5	1021071000	Cap Plate	1
6	1008537000	Reflector, Red	2
7	1008536000	Reflector, Amber	4
8	1059481000	Decal, Notice - Gate Fully Locked	1
9	1059480000	Decal, Notice - Gate Fully Locked	1
10	2103395	Decal, Patents	1
11	2104970	Decal, Safety Instructions - Floor Service Hoist	1
12	1053687000	Decal, Hydraulic Oil	1
13	1048740000	Reflector, Red	2
14	2103381	Decal, Sign Classification	1
15	1055502000	Decal, Safety Instructions - Load Dumping	1
16	1048647000	Decal, Safety Instructions - Body Prop	2
17	2106482	Decal, Safety Instructions - Tailgate Prop	2
18	1049120000	Decal, Safety Instructions - Maximum Lift 8000 Lbs.	1
19	2103779	Decal, Safety Instructions - Maximum Lift 10000 Lbs.	1
20	1047693000	Decal, Safety Instructions - No One Shall Operate Etc.	1
21	1061089000	Decal, Caution - This Vehicle Requires Height Etc.	1
22	1047673000	Decal, Warning - Keep Clear Of Tailgate Etc.	2
23	1047672000	Decal, Warning - Stop Engine Remove Ignition Etc.	2
24	1047674000	Decal, Warning - Keep Access Doors Closed Etc.	1
25	1047604000	Decal, Warning - Keep Clear At All Times	4
26	1055499000	Decal, Warning - Do Not Go Under A Raised Loaded Body Etc.	2
27	1047662000	Decal, Danger - Stand Clear when Tailgate Is In Motion Etc.	2
28	1047666000	Decal, Notice - Do Not Allow Material Etc.	1
29	2111566	Decal, Notice - Welding Procedures	1
30	2113038	Decal, Warning - Do Not Operate Vehicle Over 15 MPH Etc.	1
31	1066453000	Aluminum Pop Rivet	8
32	1019729000	Warranty Seal Tag	1
33	1043317000	Plastic Zip Lock Bag 9 x 12	1
34	2114564	Decal, Arm Control Operation	1

(PL-1543A)

WARNING

READ AND UNDERSTAND THE CONTENTS OF THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS FRONT LOADER.

DO NOT LEAVE THIS VEHICLE UNATTENDED UNLESS ENGINE IS SHUT OFF AND IGNITION KEY IS REMOVED.

BE CERTAIN OPERATIONAL AREA IS CLEAR OF ALL PERSONNEL BEFORE OPERATING ANY CONTROLS.

Your unit will have one of the following pump installations to power your Hercules Front Loader.

CRANK SHAFT - DRY VALVE PUMP OPERATION:

This is a continuous running power system controlled by an electric-air system and operated by a switch (Figure OM-1, Item A) in the cab. After air pressure has been built up, the switch is used to control the dry valve allowing oil flow to the pump, which supplies hydraulic power to the unit. When in operation a cab mounted light (Figure OM-2, Item 1) will lite. DO NOT travel with the dry valve engaged and light "ON".

POWER TAKE-OFF DRIVEN PUMP OPERATION:

To engage the Power Take-Off on a standard transmission, shift into neutral, disengage clutch and move control to shift Power Take-Off into gear. Engage clutch and Power Take-Off is in operation. (It may be necessary to let out the clutch momentarily for proper alignment so the gear may slide into position).

To engage the Power Take-Off on an automatic transmission, apply brake, shift into any one of the drive positions (this will stop transmission gears from turning). Shift Power Take-Off into gear, and then shift transmission into neutral. This will start transmission gears turning, and in turn, put Power Take-Off into operation.

⚠ WARNING

ALWAYS DISENGAGE P.T.O. WHEN UNIT IS NOT IN USE OR WHEN MOVING VEHICLE.

NOTE: THIS UNIT IS WIRED SO THAT:

1) all functions will be disabled when the side door is not completely closed.
2) When the tailgate is opened, labeled (GATE OPEN) pilot lights will lite. When the tailgate is being opened the light (Figure OM-2, Item 2) will lite. . Also an alarm (Figure OM-1, Item B) will sound until the tailgate is completely closed.

3) When the lift arm assembly is moved from the travel or dump position, a labeled (UNSAFE TRAVEL) pilot light (Figure OM-2, Item 4) will lite and alarm will sound. Light will stay on and sound will continue until arm assembly is moved into the travel/dump position.

NOTE: UNIT CANNOT BE DRIVEN SAFELY UNTIL ALARM HAS STOPPED, ALL LIGHTS ARE OFF AND CONTAINER FORKS ARE STOWED INSIDE THE HOPPER AREA.

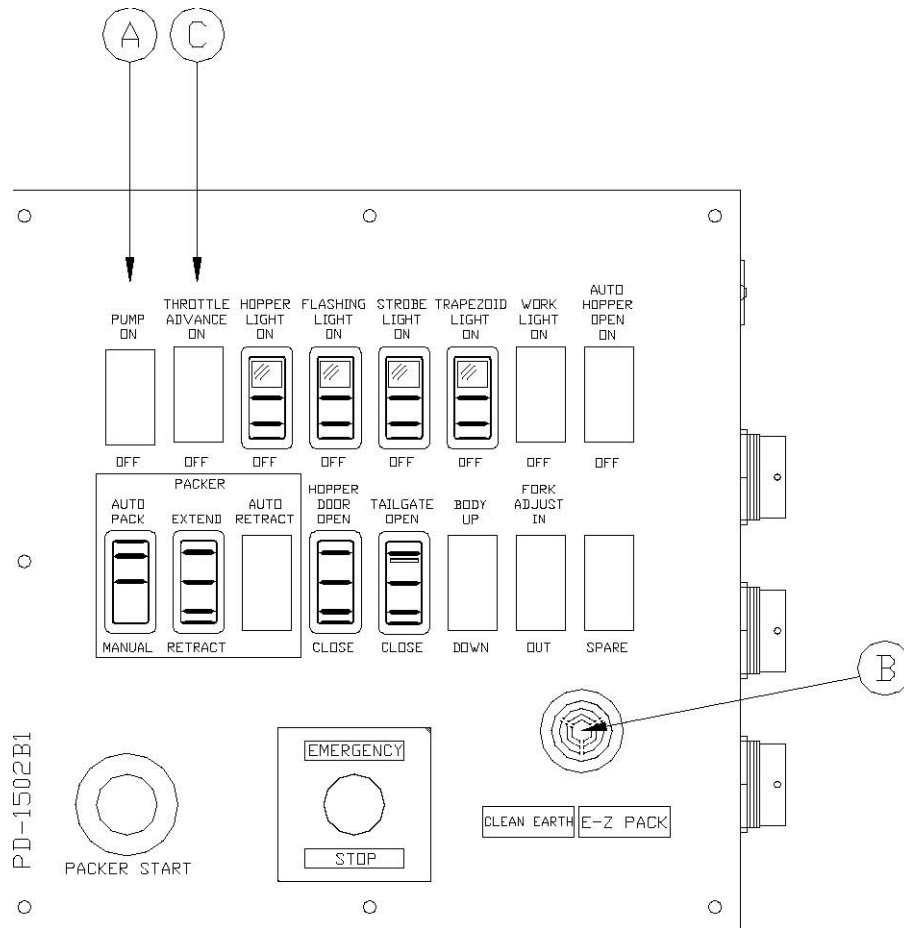
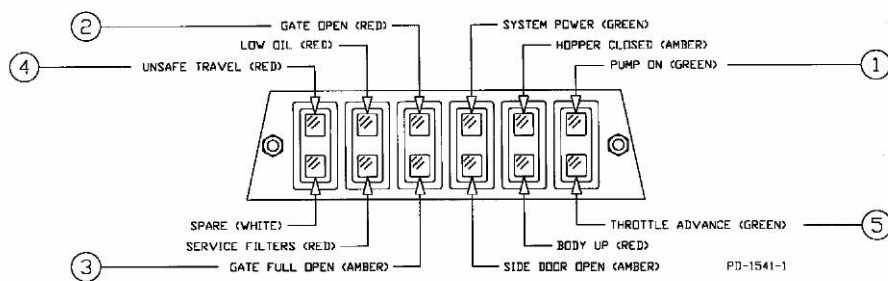


Figure OM-1

OPTIONAL THROTTLE ADVANCE:

If optional throttle advance is installed it is necessary to operate the switch (Figure OM-1, Item C) to activate this operation. Light (Figure OM-2, Item 4) will light until throttle advance is turned off.



Figure

OM-2

OPERATION AND OPERATING CONTROLS:

Before operating unit turn on all lights that are required. (See Figure OM-3, Item D).

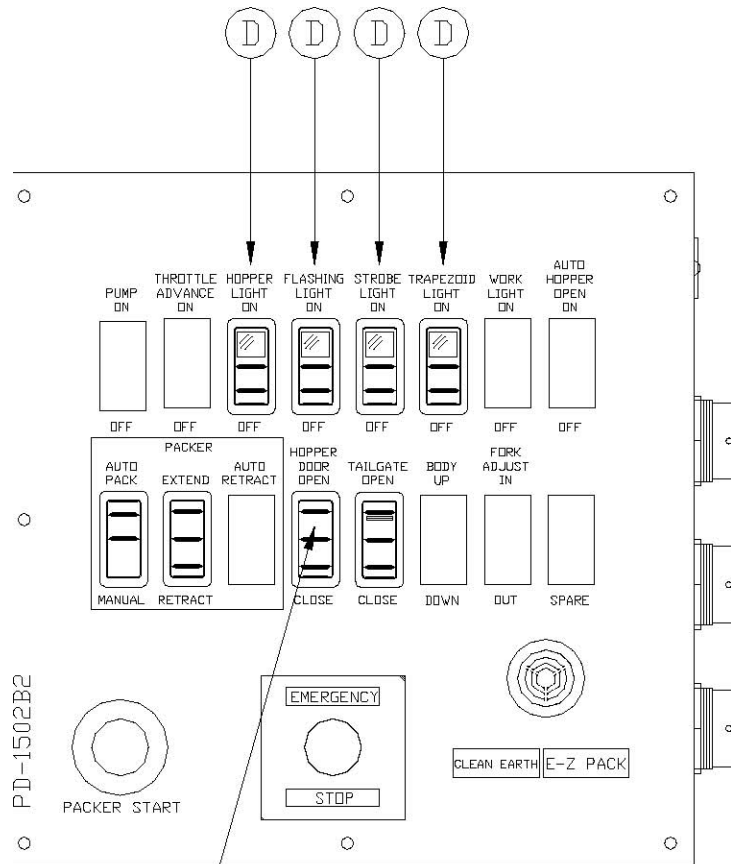
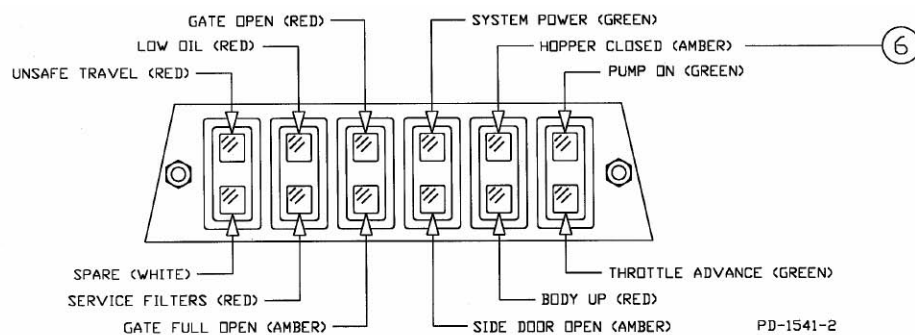


Figure OM-3

Open hopper door (Figure OM-3, Item E). Note: When hopper is opened the light (Figure OM-4, Item G) will be off. When hopper is closed the light will be lite.



STANDARD - SINGLE JOYSTICK CONTROL:

The single joystick (Figure OM-5) controls the action of the lift arms and container forks. Pushing the lever forward, away from the driver/operator will lower the lift arms, while pulling it towards the driver/operator will raise the lift arms. Moving the lever to the left will pivot the container forks forward to the down, container pick-up position. When moved to the right, container forks will tilt back to the up-stowed position or (if lift arms are fully raised) the container dumping position. The “UNSAFE TRAVEL” light will remain on until the lift arms are moved into the travel/dump position, or under 13' 6". (See Figure OM-2, Item 4).

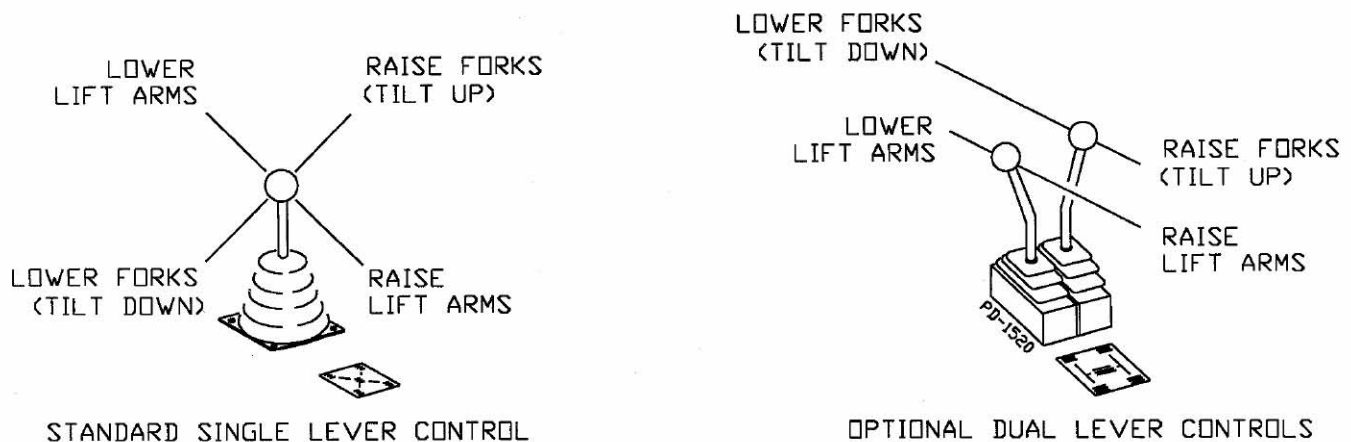


Figure OM-5

OPTIONAL DUAL LEVER CONTROLS:

The lever to the left controls the action of the lift arms, See Figure OM-5. Pushing the lever forward, away from the driver/operator will lower the lift arms, while pulling it towards the driver/operator will raise the lift arms. The other lever controls the container forks. When pushed forward away from driver/operator the container forks will tilt down to the container pick-up position and when pulled towards the driver/operator will tilt back to the up-stowed position or (if lift arms are fully raised) the container dumping position. The “UNSAFE TRAVEL” light will remain on until the lift arms are moved into the travel/dump position. (See

Figure OM-2, Item 4). **▲ WARNING DO NOT GO UNDER RAISED LIFT ARMS**

UNLESS THEY HAVE BEEN SECURELY PROPPED OR CHAINED TO PREVENT ACCIDENTAL LOWERING. LIFT ARMS DROP BY GRAVITY WHEN THE LIFT ARM CONTROL IS ACTIVATED TO LOWER POSITION AND PUMP IS NOT ENGAGED. =18=

When front loader has moved forward enough to engage the container without it falling off of container forks, raise container about a foot or so to permit backing up of the front loader as far as needed to clear well behind container and/or overhead obstructions which might interfere with dumping of the container.

Before lifting container to dumping position, make sure hopper door is open. Check light (Figure OM-4, Item G) to make sure that it is off.

Tilt forks up slightly to cause container to slide toward truck and come to rest against fork assembly. Be careful not to tilt container too much while attempting to bring the container to rest against fork assembly, or top edge of container may damage cab, (larger capacity containers in particular)> Having accomplished the above, tilt forks back to more level position and proceed to raise lift arms. At this point, do not attempt to tilt container forks until container is in dumping position

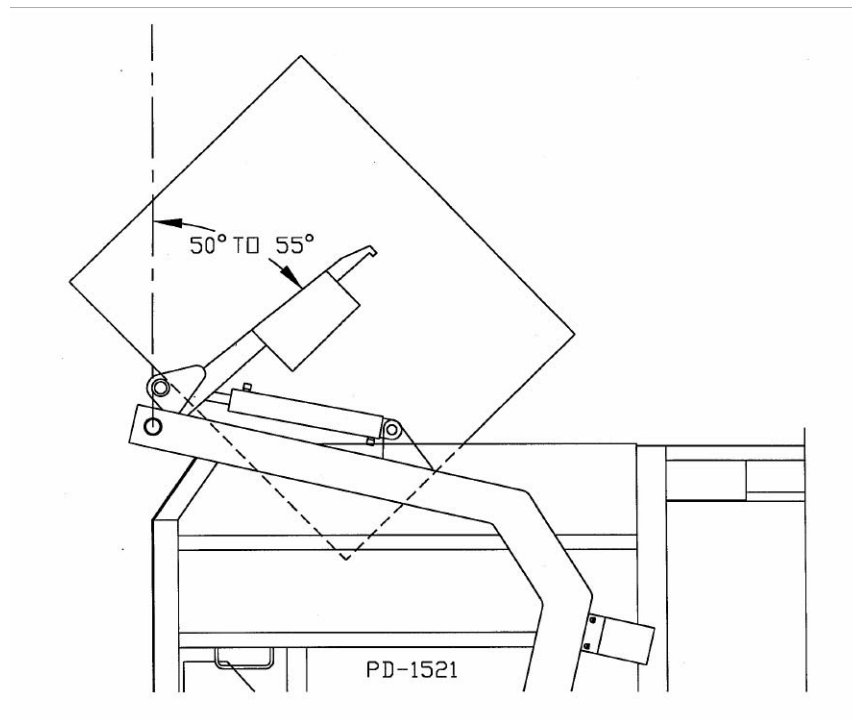


Figure OM-6

When container is in dump position, tilt container forks so that container is 50 to 55 degrees (from vertical), see Figure OM-6. If you attempt to dump the container and get no response from the controls, check to see if packing panel is completely to front of body. Your unit is equipped with a dump limit control and the container dumping is automatically prevented unless the packing panel is fully forward. This feature prevents dumping of the container behind the packing panel where the refuse could only be removed by hand. So remember, make sure that the packing panel is fully forward before dumping container. Tilt container forks back and forth a couple of times to remove all of the refuse out of the container. If hopper area of body has refuse in it, and this is preventing complete dumping of container, it will be necessary to pack the load, thereby clearing the hopper area. NOTE: TILT FORKS UNTIL CONTAINER IS ROTATED OUT OF HOPPER AREA BEFORE ATTEMPTING TO OPERATE THE PACKING PANEL.

The switch (Figure OM-7, Item F) permits automatic or manual operation of the packing panel. For automatic cycling push the top of this switch to "AUTO-PACK". Packing panel is activated by pressing and holding for approx. 2 seconds, the green "START" button (Figure OM-7, Item G). Panel will make one complete cycle and stop. Auto-cycle operation can be stopped at any time by pushing the red "STOP" button (Figure OM-7, Item H).

The manual operation of the packing panel is controlled by the switch (Figure OM-7, Item F). To activate manual operation push the bottom of this switch to "MANUAL". Pressure at the top of the switch (Figure OM-7, Item J "EXTEND") will extend the packing panel towards the tailgate while pressing the bottom (RETRACT) will retract the packing panel towards the front of the body.

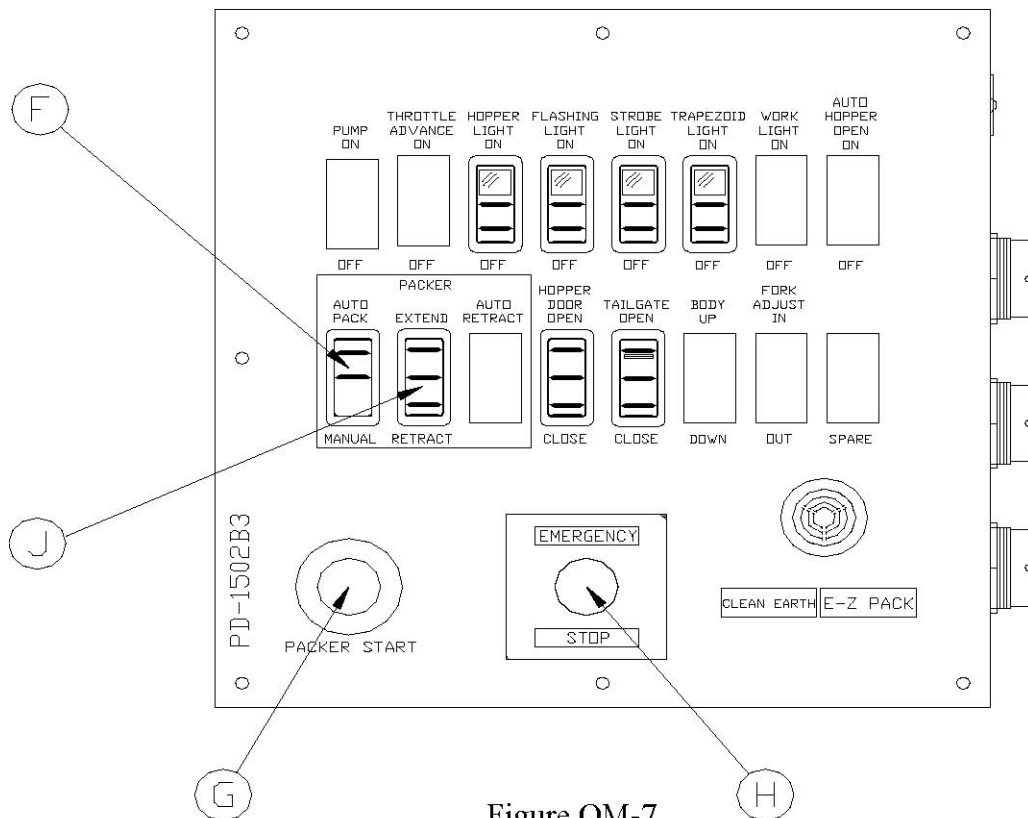


Figure OM-7

Once container has been emptied, TILT FORKS UNTIL CONTAINER IS ROTATED OUT OF HOPPER AREA AND CLEAR OF BODY before lowering container to ground. Back away from container while observing position of container forks, otherwise forks may not clear container forks brackets and the container will be dragged from its residing place. Once disengaged from container, back front loader away from container sufficiently to permit retracting of container forks to the full up position and raising of lift arms to full travel position. Before leaving site make sure hopper door is closed and hopper door closed light (Figure OM-4, Item 6) is lite. Also the packing panel should be in the retracted (forward) position, with the pump disengaged, before moving vehicle.

When packing, the packing panel will move thru the hopper, packing the refuse into the body chamber. As additional loads from the hopper are packed, the refuse forces the earlier loads to the back of the body chamber resulting in a solidly compacted load. When material starts to fall back into the hopper area and you can no longer pack it out of the way in automatic cooperation, switch to manual and run the packing panel manually to break the load and clear the hopper. Continue operation in automatic mode until material can no longer be packed out of the hopper area. The body must be unloaded at this time.

UNLOADING:

▲ WARNING

ALL UNLOADING OPERATIONS MUST BE PERFORMED ON FIRM LEVEL SURFACE.

At unloading site, move lock pin keepers to release pins, remove tailgate lock pins (one each side) see Figure M-8. The tailgate can now be opened.

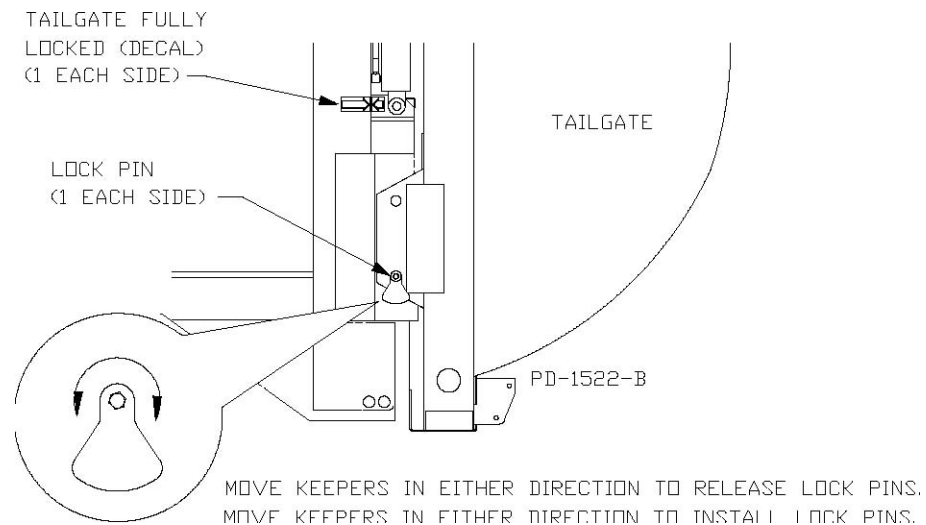


Figure OM-8

⚠ DANGER

STAND CLEAR WHEN TAILGATE IS IN MOTION AND DURING UNLOADING CYCLE. DO NOT STAND UNDER OR CROSS UNDER A RAISED TAILGATE UNLESS IT IS PROPERLY PROPPED OR BLOCKED

To open tailgate move rocker switch (OM-9, Item K) to open position. NOTE: This switch is a locked switch and to move the switch the tab on top of the switch must be moved down and held while the switch is being held to open or close the tailgate. When the tailgate is opened, labeled pilot lights will lite. When the tailgate is being opened the light (Figure OM-2, Item 2) will lite, when the gate is full open the light (Figure OM-2, Item 3) will lite. Also an alarm (Figure OM-9, Item L) will sound until the tailgate is completely closed.

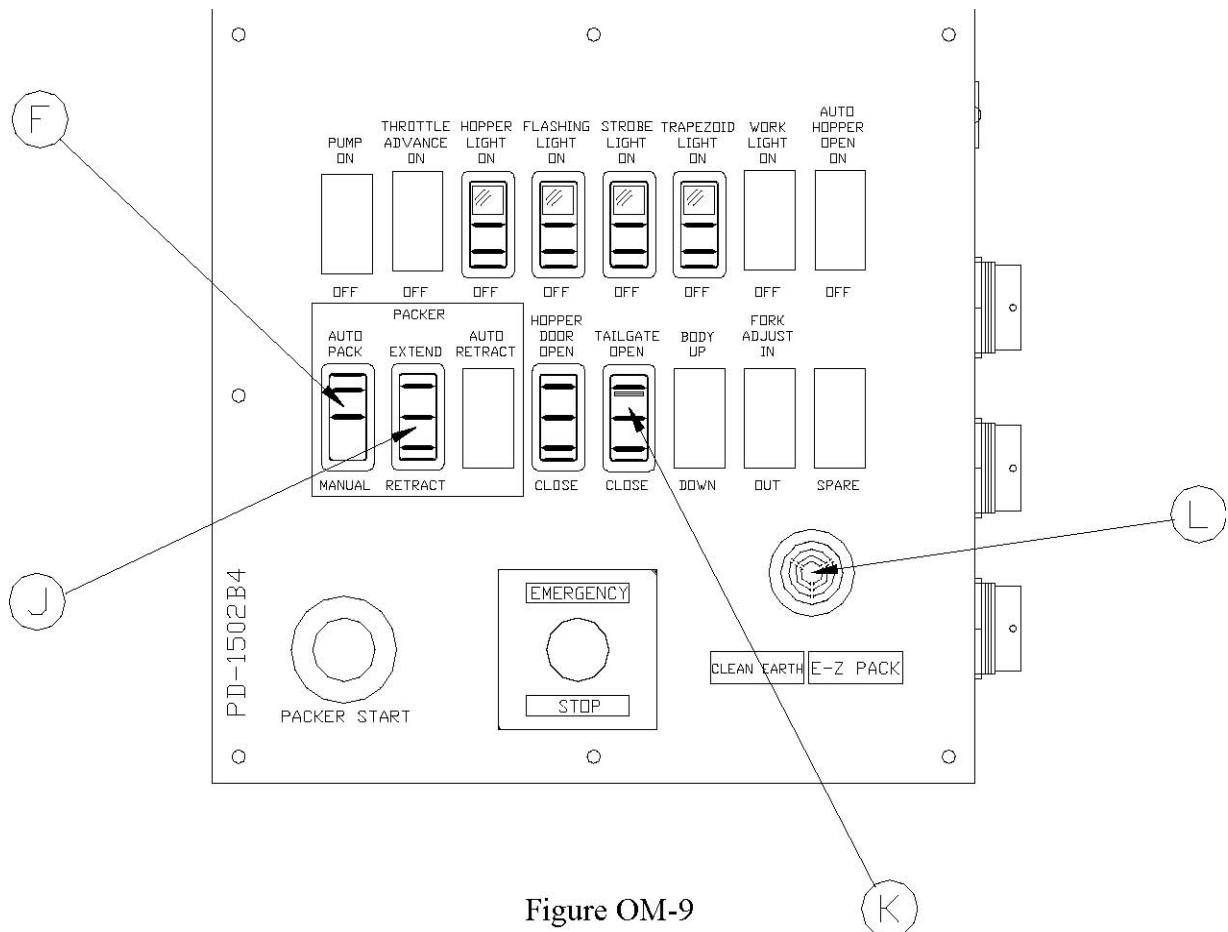


Figure OM-9

To eject load, move rocker switch (Figure OM-9, Item F) to “MANUAL”. Manually hold switch (Figure OM-9, Item J) in the “EXTEND” position, which will cause the packing panel to fully eject the load. If there is a pile of refuse at rear of body, pull truck ahead so that it will not be gathered between the closing tailgate and rear of body.

⚠ WARNING

NEVER GET BETWEEN END OF BODY AND RAISED TAILGATE. IF MATERIAL DOES NOT FALL CLEAR OF BODY, USE A BROOM OR LONG STICK TO DISLODGE MATERIAL.

Lower tailgate by moving rocker switch (OM-9, Item K) to “CLOSE” position. This switch is a locked switch and to move the switch the tab on top of the switch must be moved down and held while the switch is being held to close the tailgate. Continue holding this switch until tailgate is completely closed and fully locked decals are lined up (both sides) Pilot lights (Figure 2, Items 2 and 3) will go out.

Reinstall lock pins (one each side) and move pin keepers (both sides) to hold pins in place, see Figure OM-8.

⚠ WARNING

DO NOT GO UNDER A RAISED BODY OR TAILGATE UNLESS IT HAS BEEN SECURELY PROPPED OR CHAINED TO PREVENT ACCIDENTAL LOWERING. TAILGATE WILL DROP BY GRAVITY WHEN ITS CONTROL SWITCH IS ACTIVATED TO LOWER POSITION AND PUMP IS NOT ENGAGED

Before leaving unloading site, make certain that;

- 1) The packing panel is to the front of the body. Never travel with the packing cylinders extended, even partially, as this can cause undue shock on the cylinders which may result in accelerated cylinder wear or permanent damage.
- 2) All lights are OFF on the indicator light cluster, except the System On and Hopper Closed which will be ON.
- 3) Lift arms and fork assembly are in travel position.
- 4) Tailgate is properly closed and locked. Tailgate lock pins (one each side) are installed.
- 5) If applicable P.T.O. and/or pump is disengaged.

SIDE ACCESS DOOR:

The side access door is not intended to be used for loading. This door is provided to allow access to interior of body when maintenance and/or repairs are performed. As a precautionary measure, however, driver/operator should open side access door and observe that no one has entered the front loader body in

his absence, before dumping containers or moving the packing panel. NOTE: THIS UNIT IS WIRED SO THAT ALL FUNCTIONS WILL BE DISABLED WHEN THE SIDE DOOR IS NOT COMPLETELY CLOSED.

MAINTENANCE

(PL-1524)

▲ WARNING

DO NOT GO UNDER A RAISED LIFT ARM, TAILGATE OR BODY, UNLESS IT HAS BEEN SECURELY PROPPED OR CHAINED TO PREVENT ACCIDENT LOWERING. BODY MUST BE UNLOADED BEFORE USING BODY PROPS FURNISHED WITH THIS UNIT.

NOTICE: DO NOT ALLOW MATERIAL TO ACCUMULATE FORWARD OF PACKING PANEL. MATERIAL BUILDUP CAN RESULT IN DAMAGE TO YOUR EQUIPMENT.

DRIVE LINE:

Grease the drive line at least twice a week during heavy usage (daily if live power). Use a standard grease gun as used on other parts of the truck's chassis. The intervals of lubrication may be reduced or increased as usage merits.

Check mounting bolts on the pump and brackets as well as the center bearing hanger, universal joints, etc. check set screws and wires on the joints to make sure that these are not working loose. The slip joint should also be adequately lubricated and free from abrasive matter.

▲ WARNING

DO NOT WORK ON OR NEAR HYDRAULIC PUMP, P.T.O. , DRIVESHAFT(S) UNIVERSAL JOINTS OR ANY ROTATING PARTS WHILE THE ENGINE IS RUNNING. STOP ENGINE AND REMOVE IGNITION KEY.

PUMP:

Properly installed and operated, this hydraulic pump will give years of service with very little, if any maintenance or service repair required. There are a number of precautions which should be observed to obtain the long life possible through proper care.

- 1) Universal joints should be snug on the shaft and properly locked to prevent vibration.
- 2) Power Take-Off should be disengaged so that pump will not be operated when truck is being driven.
- 3) Whenever servicing the hydraulic system, prevent dirt from getting into the system.
- 4) Be careful not to operate pump with insufficient oil in tank.

OIL SUPPLY TANK - CAPACITY 49 GALLONS:

The oil supply tank is the storage place of the life blood of the hydraulic system. Careful maintenance and inspection at this point will materially increase the longevity of the unit and keep repairs to a minimum. The tank for the hydraulic oil supply is located on the streetside chassis frame rail. Check oil supply daily, making sure oil level is at mid-way point on the oil sight gauge (See Figure M-1). When checking, have the unit setting level, oil at a normal operating temperature, all cylinders in the retracted position and the pump not operating.

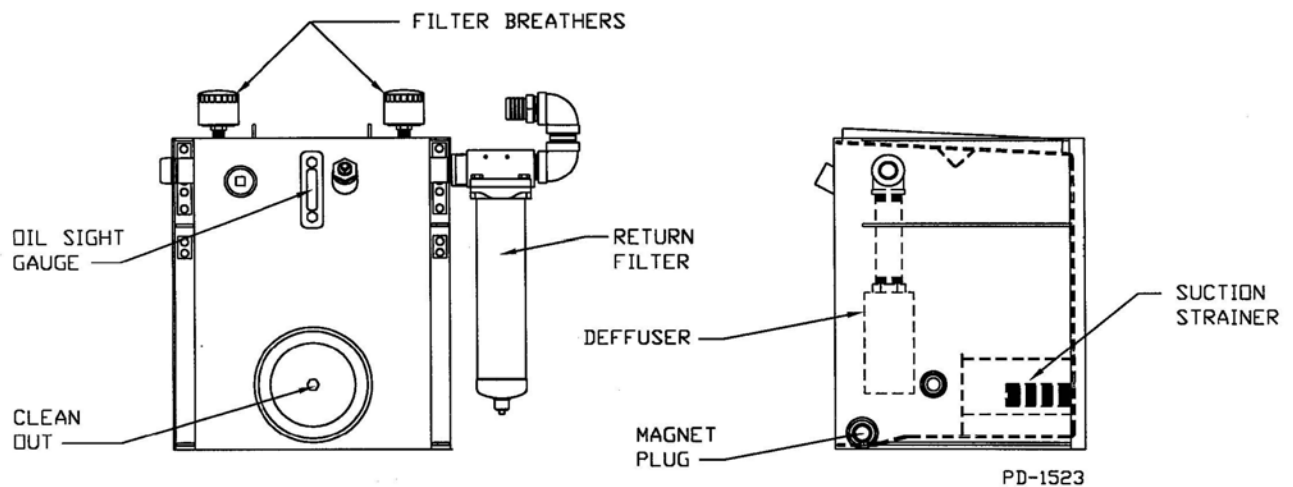


FIGURE M-1

We recommend that after the first 6 months of operation, the oil be drained and replaced. An annual oil change thereafter will suffice in normal operations. **KEEP YOUR OIL CLEAN!!!**

OIL SAMPLING PROCEDURE:

The following are items and steps to be adhered to when taking an oil sample.

- A. Operate the unit for no less than 15 min. To allow the oil to come up to temperature and circulate in the tank.
- B. Check the oil indicator lights on the control panel to be sure they are not on. NOTE: An indicator light coming on momentarily does not indicate the need to change the filter. Only a sustained light for several minutes, after the hydraulic oil is up to operating temperature, indicates filter maintenance.

The indicator pressure switch is set to activate at 43 PSI. The filter will not by-pass until a 50 PSI differential is reached. This allows for a safety margin while the unit is out on the route operating so it does not have to leave the route at first signs of indicator light on.

C. Have the proper equipment needed to take the oil sample. The oil sample analysis kit 2049699000 and send to E-Z Pack, in the carton with the forms filled out properly. Be sure to use the oil sample hand pump 5505950000 or your sample will not be valid.

NOTE: The tubing on the hand pump must be cleaned before each oil sample by pumping some of the sample oil into a clean test container or replaced with new tubing.

D. Clean the area where you will insert the tubing into the hydraulic reservoir, normally at the plug on top of the tank.

E. Insert the tube into the tank until it is approximately in the middle of the hydraulic fluid.

F. Draw oil into a standard container to flush the test equipment. Now draw the oil sample at this point into the clean oil sample container.

G. Check the oil level with all the cylinders in their normal position.
Add make up oil if needed. This must be clean oil with an ISO of 15/12 is recommended. See following oil specifications. This can be achieved by pumping the new oil through a 3 micron absolute, Beta 3=200, filter while filling the reservoir.

H. Be sure to inspect the air breather filter for oil contamination. If oil is present in the breather the breather (1072562000) must be replaced.

J. Return the oil sample to E-Z Pack in the carton with the forms properly filled out and all the necessary notes.

OIL SPECIFICATIONS:

CODE 1657 RANDO OIL HD 32

Typical Characteristics: Appearance	Pale Brown,	Pour Point -27.4 °F	Flash Point 428 °F
API Gravity	32.6°	Viscosity Index	99.0
Saybolt Viscosity at 100° F	157 SUS	Saybolt Viscosity at 210° F	44.0 SUS
Kinematic Viscosity at 40° C (104°F)	30.4 cSt		
Kinematic Viscosity at 100°C (212°F)	5.20 cSt		
Neutralization No.	0.4		

Rando Oils HD are light-colored, premium, anti-wear hydraulic oils blended from high quality paraffin disillate stocks with excellent stability. There rust and oxidation inhibited and contain a specially selected antifoamant which permits very rapid release of entrained air. This latter point is important since entrained air will cause system sponginess, thus affecting the rapidity and accuracy of system response. They also

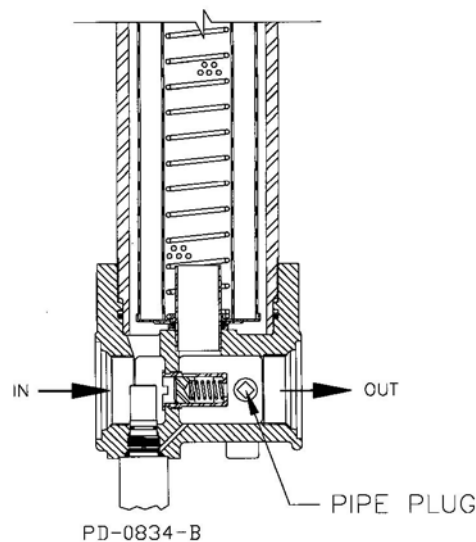
contain a very effective zinc-type antiwear agent that helps minimize wear in high-speed, high pressure vane and gear pumps while meeting the lubrication requirements of axial piston pumps having bronze-on steel metallurgy.

FILTER BREATHER CAPS:

Located on top of oil tank (See Figure M-1) are two (2) filter breather caps. These caps are for the ease of replacing or adding oil and allows the free exchange of filtered air to and from the tank, as the level of oil fluctuates. It is important that these caps be kept clean and in place. Before removing these caps make sure the area is clean, as any foreign materials allowed into the oil supply can cause expensive down time and repairs.

OIL FILTERS:

The elements in the high pressure and return filters should be replaced after the first fourteen(14) days of operation, then serviced when the indicator light on the cab console comes on or at six month intervals. Note: If oil filter lights are staying lit after the hydraulic oil is warm and you know that the unit does not need service, the sending unit could be defective and need replacing. NOTICE: To keep from having a mess with spilled oil - Before removing the filter bowl on the high pressure filter 1) Shut the pump off, 2) Remove the pipe plug on the side of the filter (See Figure M-2) to siphon the oil from the filter bowl. Replace plug before operating unit.



CYLINDERS:

A thin film of oil on the piston rod or sleeves as they extend is desirable, but a cylinder showing a steady drip of oil indicates need of service. The piston rod or sleeves should be inspected occasionally for scratches and nicks which can cause considerable damage to wiper rings, bearings and packing. Any marks such as these should be smoothed out to prevent damage to the cylinder.

Cylinder pivot pins should be checked periodically for tightness and wear. See Lubrication Chart for grease zerks and lubrication schedule.

PACKING PANEL AND TRACKS:

The packing panel rides on guide shoes in tracks on both sides of the body. It is important that these tracks be kept clean and lubricated. Check these tracks daily, removing any accumulation of trash, apply by brush, a good chassis lube (Standard Oil "GEAREP OG" or equal) to the full length of these tracks (both sides).

USE LOCKOUT / TAGOUT PROCEDURE BEFORE ENTERING BODY.

It is also important to replace the panel guide shoes when they become worn.

NOTICE:

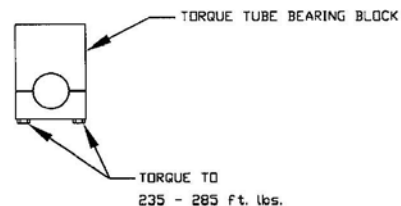
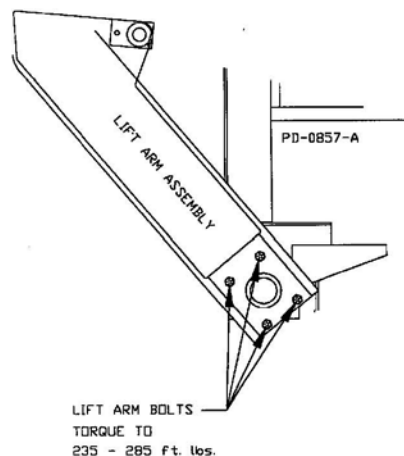
DO NOT ALLOW MATERIAL TO ACCUMULATE FORWARD OF EJECTOR PANEL.
MATERIAL BUILD UP CAN RESULT IN DAMAGE TO YOUR EQUIPMENT.

If using tools or equipment to remove restricting material, use all safety precautions and safety equipment recommended by their manufacture.

INSPECTION:

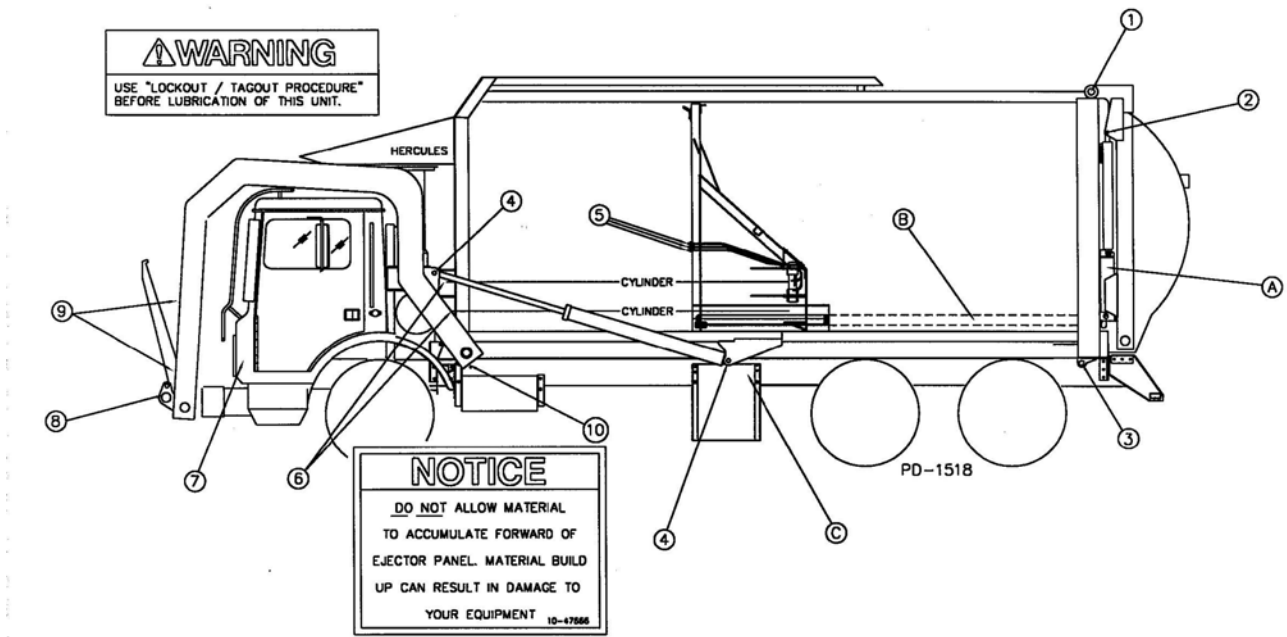
In addition to aforementioned maintenance, a regular weekly schedule of service checks should be made of the following.

- 1) Body Mounting Fasteners.
- 2) All Hydraulic Fittings and Connectors.
- 3) All Pivot Pins and Fasteners.
- 4) Electrical Connections and Components.
- 5) All Air Connections.



Checking and tightening bolts and nuts is a standard maintenance item. All mounting or load carrying bolts need to be inspected weekly. Please note the correct torque for the bearing bolts shown in Figure M-3. Arm bolts should be tack welded in place. If tacks are broken, replace bolt, torque to 235-285 ft. lbs. and tack.

HERCULES (EJECT) LUBRICATION CHART (ALL POINTS TO BE LUBRICATED ONCE A WEEK)



- 1) TAILGATE HINGE PIVOTS (2 = 1 EACH SIDE)
- 2) TAILGATE LIFT CYLINDERS (1 FITTING ROD END - BOTH SIDES = TOTAL 2)
- 3) BODY PIVOT HINGES (1 FITTING EACH HINGE - BOTH SIDES = TOTAL 2)
- 4) ARM LIFT CYLINDER (1 FITTING EACH END - BOTH SIDES = TOTAL 4)
- 5) PACKING CYLINDERS - ROD END (3 FITTINGS - BOTH SIDES = TOTAL 6)
- 6) PACKING CYLINDERS - BASE END (2 FITTINGS - BOTH SIDES = TOTAL 4)
- 7) FRONT DRIVE OR PTO DRIVE (3)
- 8) FORK BOX PIVOTS (1 FITTING EACH SIDE - BOTH SIDES = TOTAL 2)
- 9) FORK DUMP CLINDER PIVTOS (1 FITTING EACH END - BOTH SIDES = TOTAL 4)
- 10) LOWER TORQUE TUBE PIVOTS (2 FITTINGS EACH SIDE = TOTAL 4)

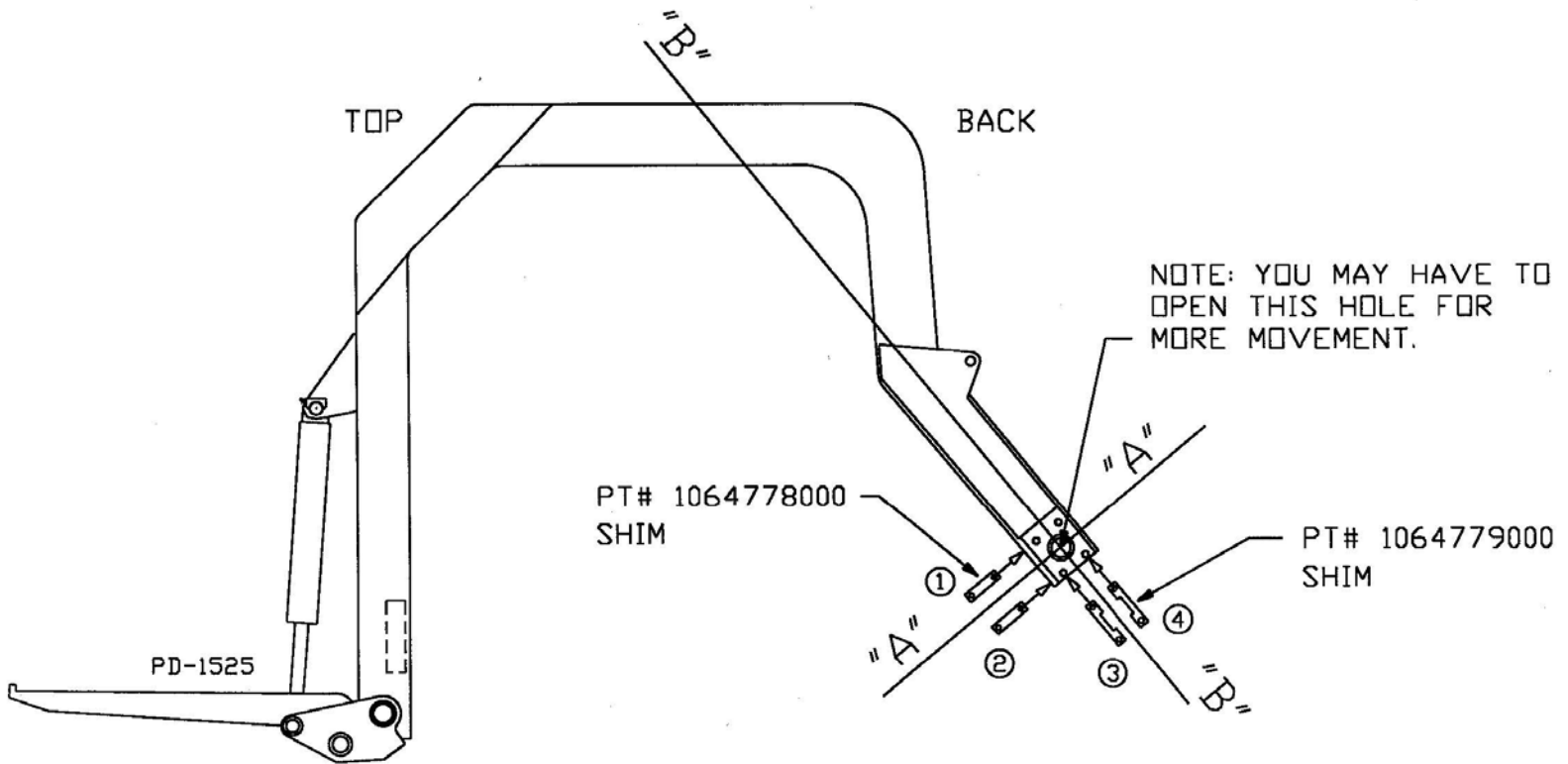
APPLY A GOOD CHASSIS LUBE (STANDARD OIL "GEAREP OG" OR EQUAL) TO THE FOLLOWING AREAS.

- A) WEAR SURFACES OF TAILGATE LOCKS (BOTH SIDES)
- B) CHECK THE FULL LENGTH OF THESE TRACKS (BOTH SIDES) DAILY, REMOVING ANY ACCUMULATION OF TRASH. WE RECOMMEND THAT YOU DAILY APPLY BY BRUSH THE

ABOVE CHASSIS LUBE TO THE FULL LENGTH OF THESE TRACKS.
C) CHECK OIL SUPPLY DAILY, MAKING SURE OIL LEVEL IS AT MID-WAY POINT ON THE OIL SIGHT GAUGE. WHEN CHECKING, HAVE UNIT SITTING LEVEL AND OIL AT A NORMAL OPERATING TEMPERATURE WITH ALL CYLINDERS IN THE RETRACT POSITION AND WITH PUMP NOT RUNNING.

APPLY OIL TO ALL LINKAGE AND FRICTION POINTS.

SHIM INSTALLATION



1) To pivot the top of the arm out around axis "A-A", install a shim @ position (1).

NOTE: 1/16" Shim = 3/4" Movement.

2) To pivot the top of the arm in, install a shim @ position (2).

3) To pivot the back of the arm in around axis "B-B", install a shim @ position (3).

4) To pivot the back of the arm out, install a shim @ position (4).

NOTE: Arm bolts should be tack welded in place. If tacks are broken, replace bolt, torque to 235-285 ft. Lbs. And tack. (4 Bolts, Both Sides).

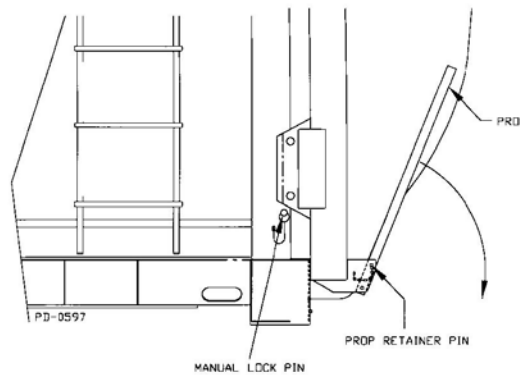
TAILGATE PROPPING INSTRUCTIONS (PL-0955)

⚠ WARNING

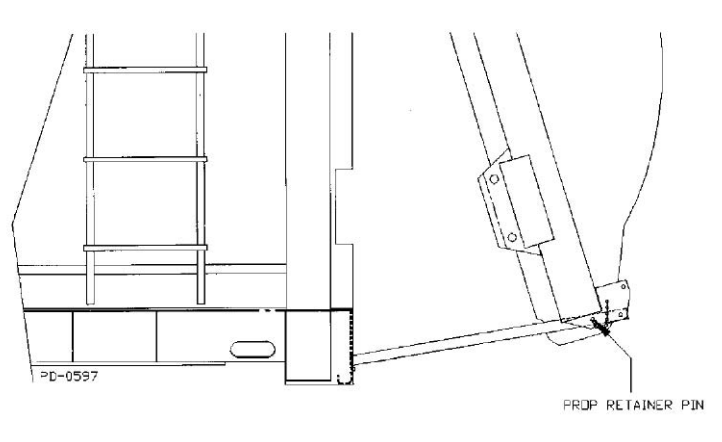
DO NOT GO UNDER A RAISED TAILGATE WITHOUT PROPPING IT.

TO USE THE TAILGATE PROPS:

- 1). Set emergency brake and chock wheels.
- 2). Remove tailgate manual lock pins (both sides). Loosen optional turnbuckles if installed (both sides).



- 3). Raise tailgate approximately 4 feet.
- 4). Remove retainer pins and swing props into support position and reinstall retainer pins (both sides).



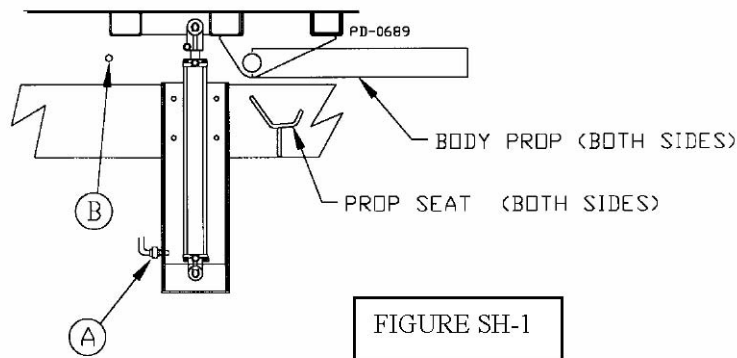
- 5). Lower tailgate in a slow controlled manner until the props rest in the prop receivers. Check that both sides are seated. Shut-off engine.
- 6). To disengage props, raise tailgate and pin props in travel position. Power tailgate completely closed until full locked decals are lined up.
- 7). Reinstall tailgate manual lock pins. (both sides). Relatch optional tailgate turnbuckles (both sides).

SERVICE HOIST PROCEDURE
(PL-0954)

⚠ WARNING

DO NOT GO UNDER A RAISED BODY.
DO NOT GO UNDER A RAISED BODY WITHOUT PROPPING IT - BODY MUST BE EMPTY.

- 1). Set emergency brake and chock wheels.
- 2). Lower tailgate fully. Insert tailgate manual lock pins (one each side).
- 3). Remove 1/4" hose (Item A) from travel position quick disconnect and plug into tailgate system quick disconnect (Item B). See figure SH-1.



- 4). Raise body, by closing the tailgate. Raise body to a height that the body props can be released (both sides) to align with prop pockets (both sides).
- 5). Lower body, by opening the tailgate, until the props are resting properly in pockets (both sides).
When lowering body onto prop pockets, do so in a slow controlled manner. Shut-off engine.
- 6). To disengage props - start engine - close tailgate to raise body enough to secure props in travel position. Lower body to frame by opening the tailgate.
- 7). Reinstall 1/4" hose to travel position (item a) and cap tailgate system. (Item b).

FLOOR SERVICE HOIST PROCEDURE
(PL-1335)

DO NOT GO UNDER A RAISED BODY.

DO NOT GO UNDER A RAISED BODY WITHOUT PROPPING IT - BODY MUST BE EMPTY.

BEFORE PERFORMING THESE PROCEDURES HAVE THE CHASSIS ON A PAVED LEVEL SURFACE, WITH WHEELS CHOCKED AND PARKING BRAKE ON.

1). Unbolt spring mounting (both sides) and hose clamps at front of body.

NOTE: REMOVE EXHAUST STACK.

2). Lower tailgate fully. Insert tailgate manual lock pins (one each side).

3). Release body props (both sides).

4). Position service floor jack (2104958) under chassis, inline with the cylinder pivot brackets on the body.

5). Swing cylinders up into position and pin to the pivot pin brackets on the body. (Make certain that cylinders are perpendicular to ground and chassis).

6). Connect hoist cylinders extend hose into tailgate system quick disconnect (Item B) and connect rod side of cylinders to quick disconnect on the tank (Item A)

7). Raise body, by closing the tailgate. Raise body to a height to allow props to align with prop pockets (both sides).

8). Lower body by opening the tailgate, until the props are resting properly in pockets (both sides). When lowering body onto prop pockets, do so in a slow, controlled manner. Shut-off ignition and remove keys.

9). To disengage props, start engine and pump system. Close tailgate to raise body enough to secure props in travel position. Lower body to frame by opening the tailgate.

10). Disconnect hoses from quick disconnects (Items A & B) and un-pin service floor jack cylinders from brackets on body. Remove service floor jack from area.

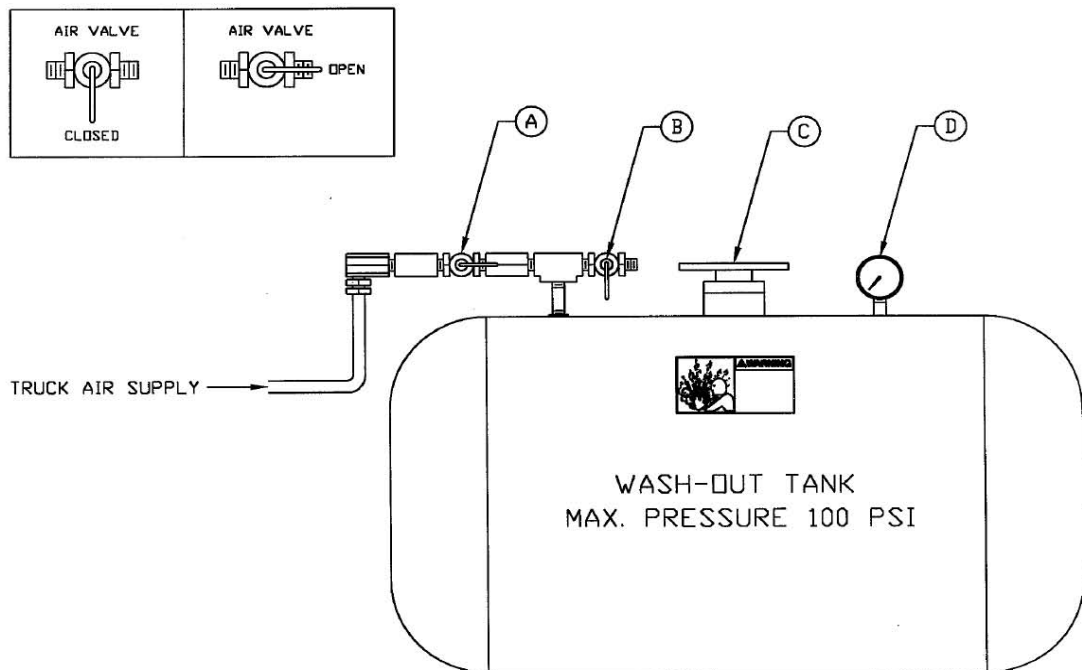
11). Reinstall spring mountings (both sides) and hose clamps at front of body. Reinstall exhaust stack.

PROPER PROCEDURE FOR BLEEDING AIR PRESSURE FROM OPTIONAL WASH-OUT
TANK
(PL-1344)

⚠ WARNING

IF THIS PROCEDURE IS NOT FOLLOWED - SEVERE INJURY COULD OCCUR. IF THIS PROCEDURE DOES NOT BLEED OFF ALL THE AIR PRESSURE, IMMEDIATELY STOP TRYING AND CONTACT AN AUTHORIZED McCLAIN E-Z PACK DISTRIBUTOR OR QUALIFIED PERSONNEL TO TROUBLE SHOOT THE PROBLEM.

DO NOT REMOVE THE FILL CAP (ITEM C) WITH PRESSURE IN TANK



PD-1344

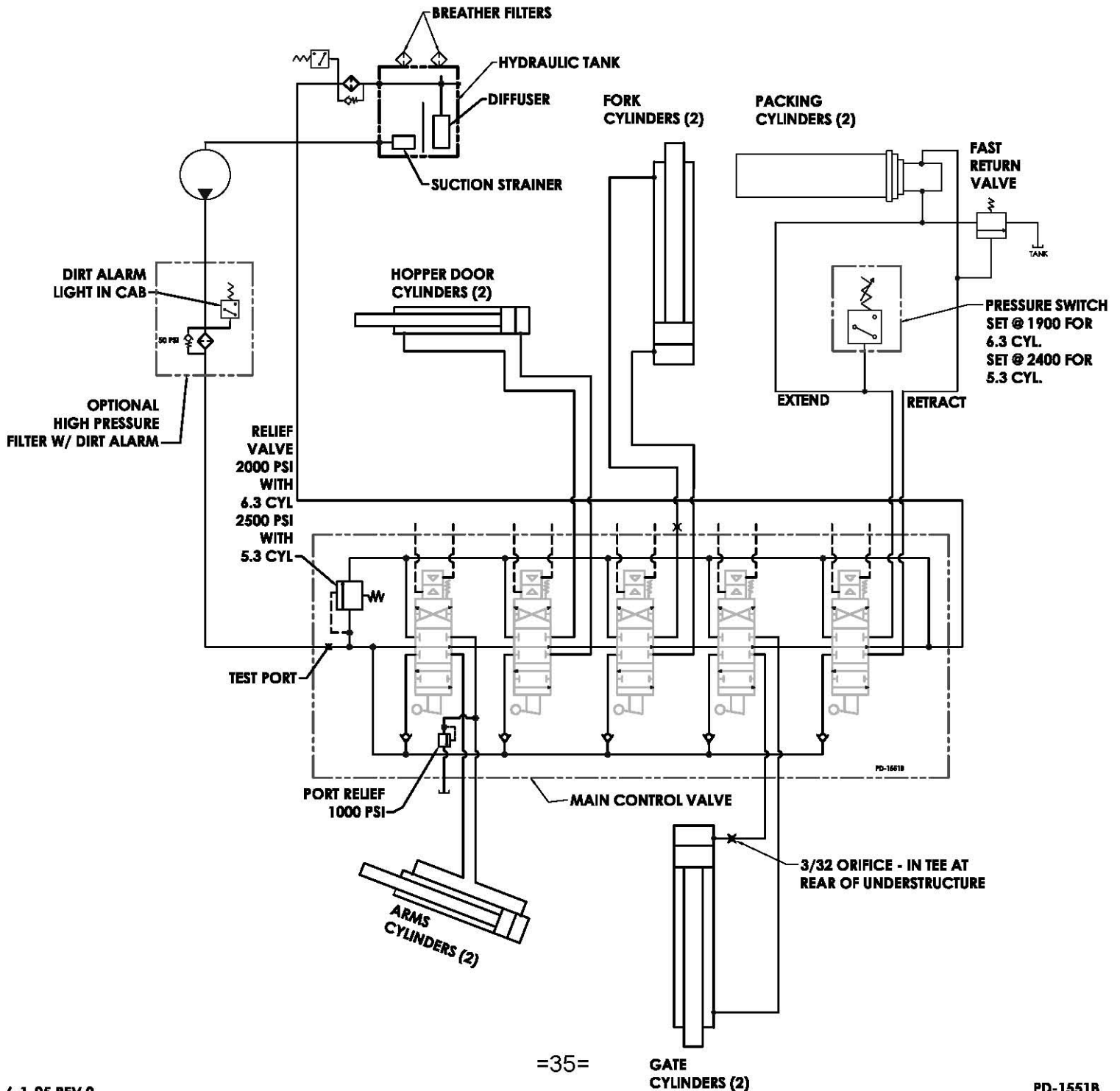
- 1) Close the inlet air valve (Item A). This will stop the air pressure supply to the tank.
- 2) Open bleed air valve (Item B). This will relieve the air pressure in the tank. NOTE: Bleed off all pressure before removing the fill cap (Item C). Check pressure gauge, (Item D) for a zero (0) reading before removal of the fill cap.
- 3) Proceed to remove the fill cap (Item C) slowly. If any air pressure is trying to escape (a hissing sound) around the cap, stop loosening and retighten the cap. Repeat steps 1 and 2 to release all pressure in tank.

DO NOT REMOVE THE FILL CAP (ITEM C) WITH PRESSURE IN TANK

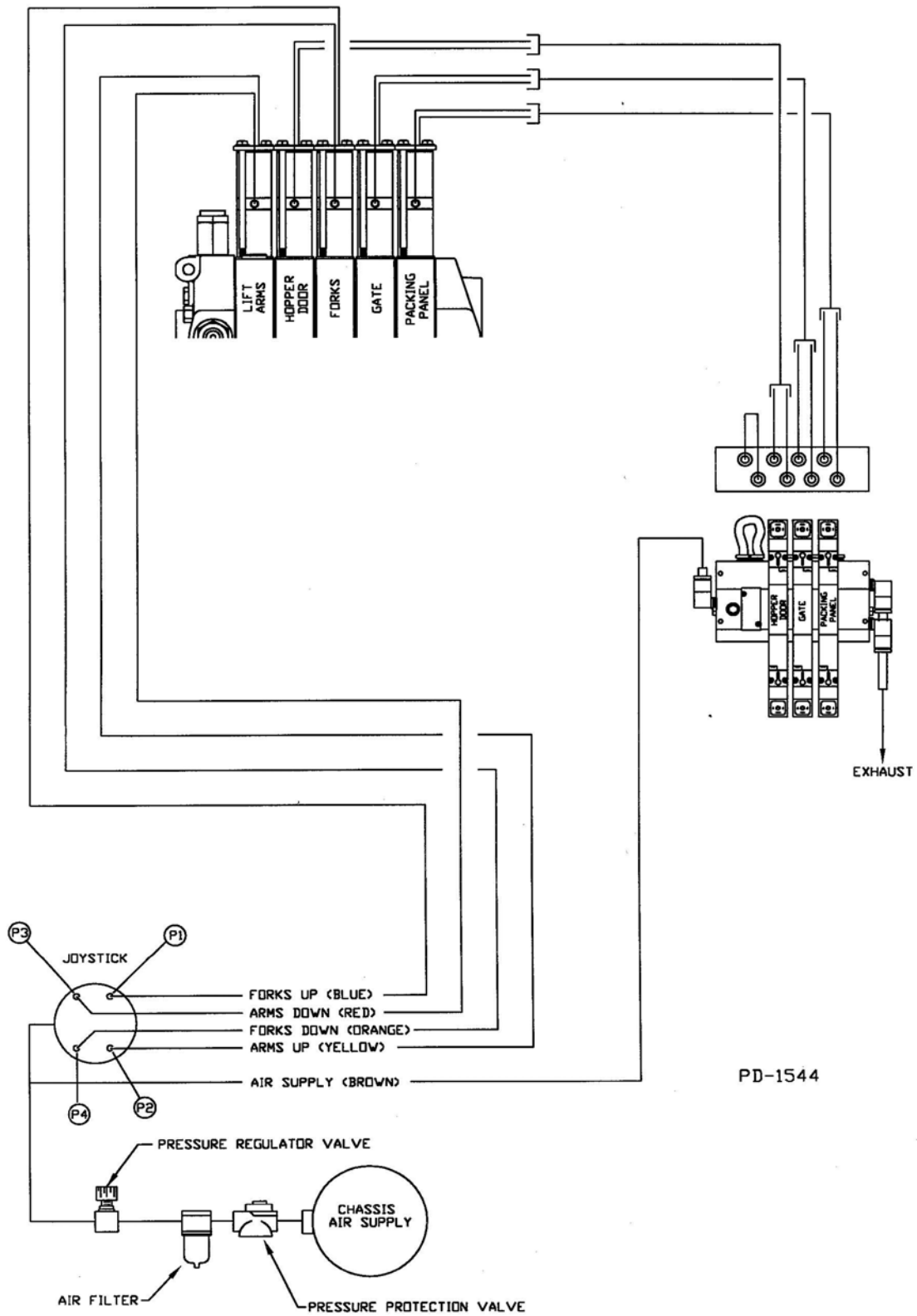
E-Z PACK by CLEAN EARTH

FL00 COMMERCIAL FRONT LOADER

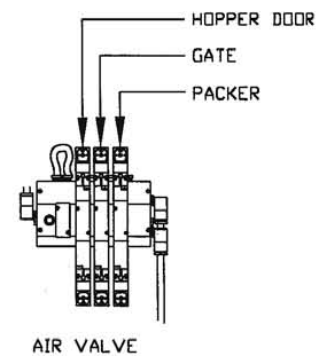
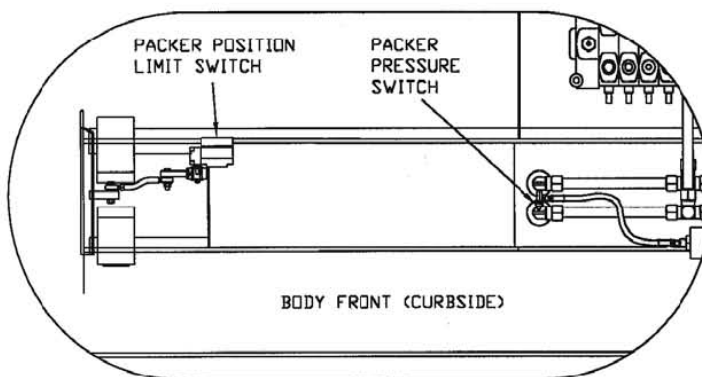
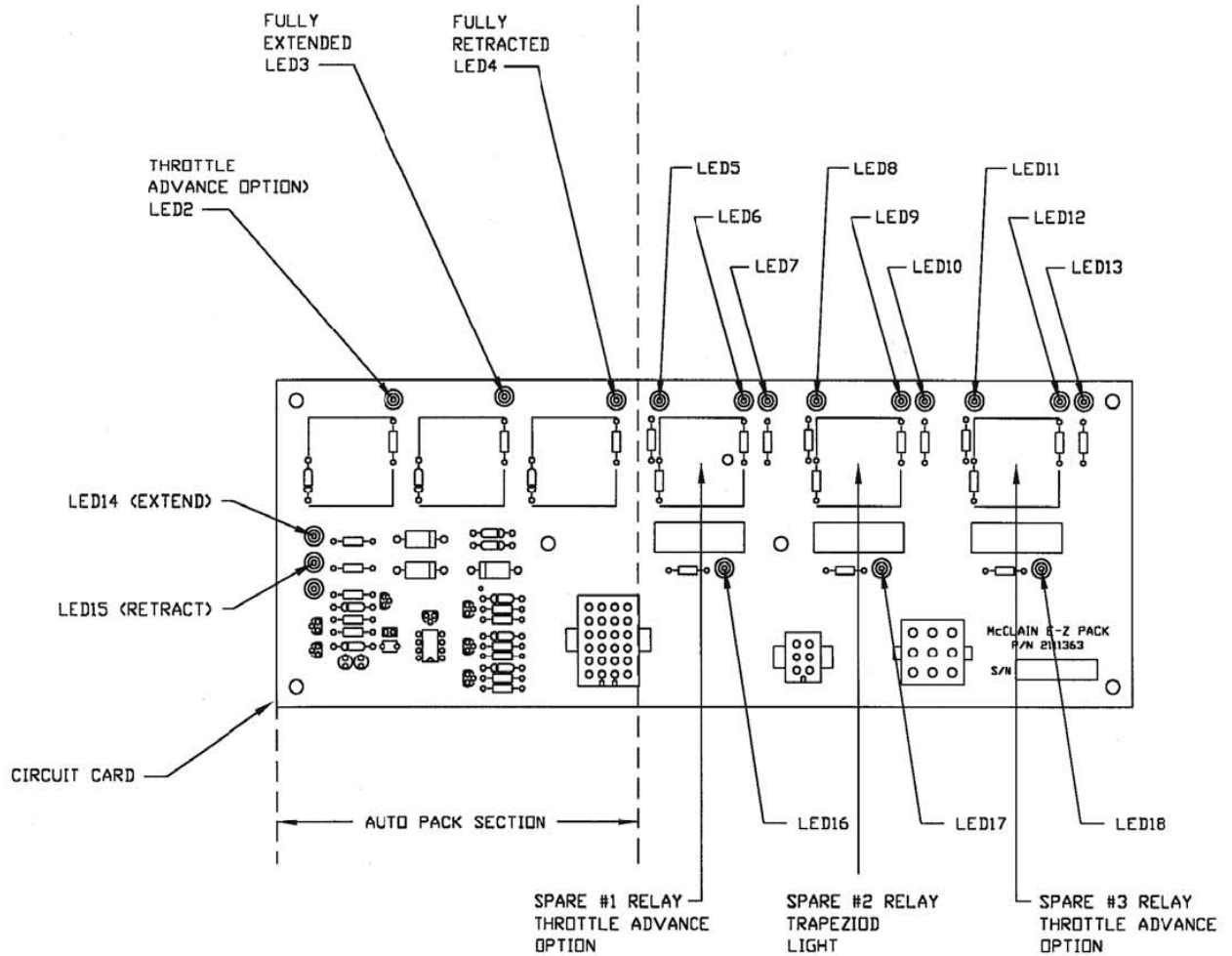
HYDRAULIC SCHEMATIC



AIR CONTROLS PICTORIAL LAYOUT



CIRCUIT BOARD LIGHT OPERATION DEFINITION



CIRCUIT BOARD LIGHT OPERATION DEFINITION

AUTO PACK OPERATION:

-- Mode switch (SW2) must be in Auto Pack. -- Green Start Button (PB1) must be depressed and held until packer extends off of packer position limit switch (PS3) N.C. contacts. --LED2 (GREEN) and LED14 (GREEN) will be on and packer will extend. -- This condition will remain until the packer reaches the pack point (LS1) or the packer extend pressure switch (PS3) closes. Either condition will cause LED3 (GREEN) to lite. -- This will cause LED14 (green) to go off and LED15 (GREEN) to come on. -- Once blade starts to retract LED3 will go off, as blade continues to retract. --LED15 will remain on until packer retracts to the home (fully retracted) position. LED2 & LED15 goes off.

CR4 RELAY (USED WITH THROTTLE ADVANCE OPTION):

-- Once Throttle advance Control Switch (SW4) is engaged & a function requiring throttle advance are enabled, LED16 (RED) and LED7 (AMBER) will come on. -- Once transmission is placed in neutral LED5 (GREEN) comes on, LED7 (AMBER) goes off and LED6 (GREEN) comes on.
*This sequence of operations displays that CR4 is working properly and has changed states.

CR6 RELAY.

--The following procedure will be accurate most of the time. But LED12, 13 & 18 may never lite. This will depend on what type of signal is required by the engine to enable throttle advance. -- LED11 (GREEN) comes on with LED6 (GREEN) -- LED 18 (RED) and LED13 (AMBER) will always be on. (If engine uses +12VDC for throttle advance). -- When LED11 (GREEN) comes on, LED12 (GREEN) comes on. LED12 is the output to engine for throttle advance (if engine uses +12VDC for throttle advance).

CR5 RELAY (TRAPEZOIDAL LIGHT):

-- LED17 (RED) and LED10 (AMBER) will always be on, showing that relay has power and is off.
-- Once transmission is placed in reverse LED8 (GREEN) comes on (signal from transmission) -- This causes LED9 (GREEN) to come on & LED10 to go out, giving output to trapezoidal control switch. (SW8).

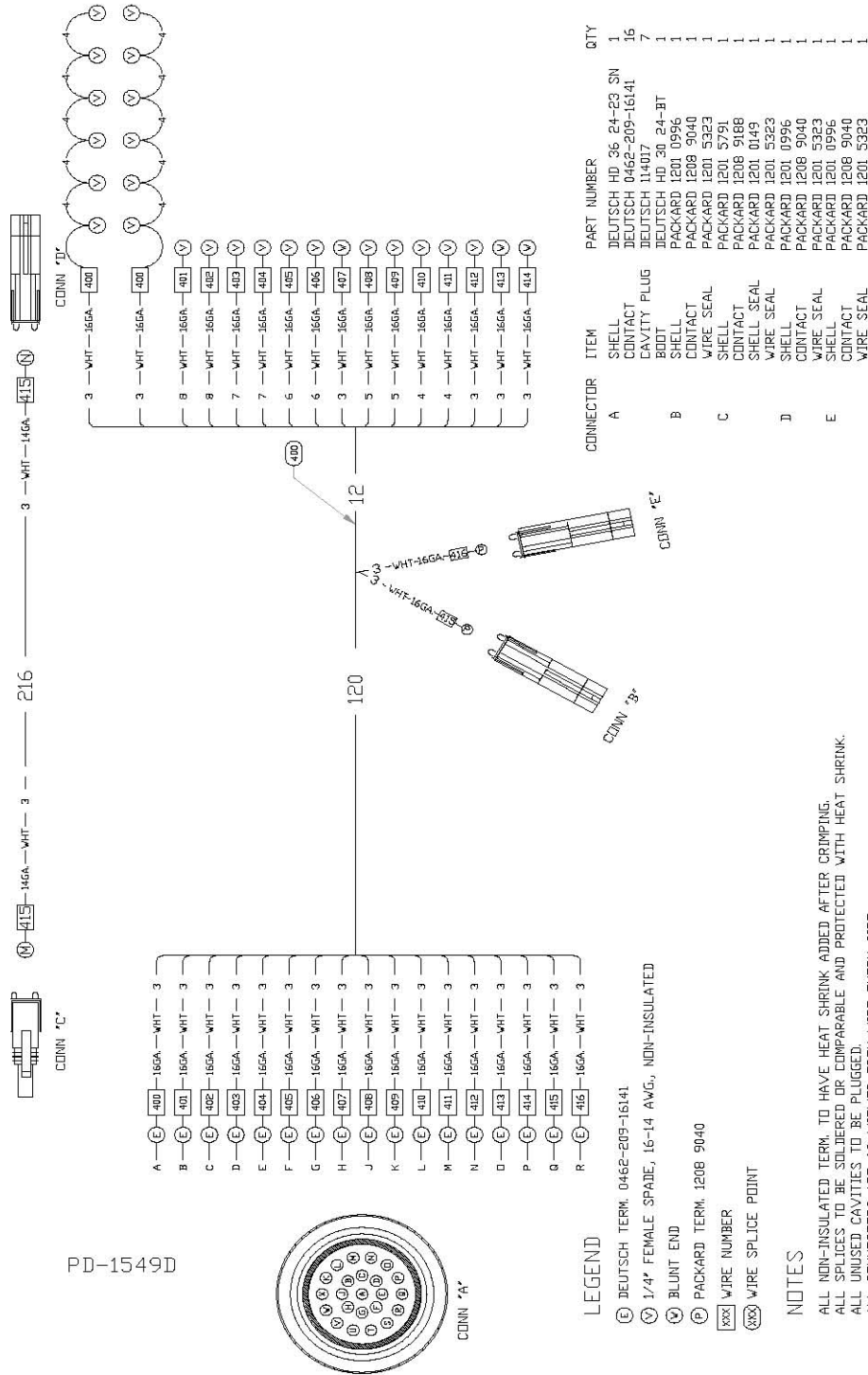
AIR CONTROL VALVE:

Corresponding LED lights on the air control valve will light as a specific function is called for.

(2109780)



WIRING HARNESS "D" (2109778)



CONNECTOR	ITEM	PART NUMBER	QTY
A	SHELL	DEUTSCH HD 36 24-23 SN	1
	CONTACT	DEUTSCH 0462-209-16141	16
	CAVITY PLUG	DEUTSCH 114017	7
B	BOOT	PACKARD 1201 0996	1
	SHELL	PACKARD 1208 9040	1
	CONTACT	PACKARD 1201 5323	1
C	WIRE SEAL	PACKARD 1201 5791	1
	SHELL	PACKARD 1208 9188	1
	CONTACT	PACKARD 1201 0149	1
D	WIRE SEAL	PACKARD 1201 5323	1
	SHELL	PACKARD 1201 0996	1
	CONTACT	PACKARD 1208 9040	1
E	WIRE SEAL	PACKARD 1201 5323	1
	SHELL	PACKARD 1201 0996	1
	CONTACT	PACKARD 1208 9040	1
F	WIRE SEAL	PACKARD 1201 5323	1
	SHELL	PACKARD 1201 0996	1
	CONTACT	PACKARD 1208 9040	1

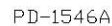
LEGEND

- (E) DEUTSCH TERM. 0462-209-16141
- (V) 1/4" FEMALE SPACER, 16-14 AWG., NON-INSULATED
- (P) BLUNT END
- (P) PACKARD TERM. 1208 9040
- (XXX) WIRE NUMBER
- (XXX) WIRE SPICE POINT

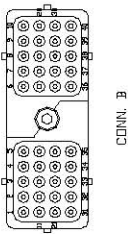
NOTES

ALL NON-INSULATED TERM. TO HAVE HEAT SHRINK ADDED AFTER CRIMPING.
ALL SPLICES TO BE SOLDERED OR COMPARABLE AND PROTECTED WITH HEAT SHRINK.
ALL UNUSED CAVITIES TO BE PLUGGED.
ALL CONNECTORS ARE AS VIEWED FROM WIRE ENTRY SIDE.
HARNESS TO BE ENCASED IN CORRUGATED SPLIT LOOM OF MINIMAL SIZE.
TAPE HARNESSES TOGETHER
LABEL WIRE NUMBERS EVERY FOUR INCHES.
WIRE TO BE OF GXL TYPE

=P42=

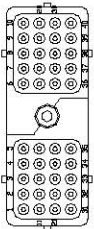


WIRING HARNESS "B"
(2109779)



3	—	WHT	—	16GA	—	301	—	E	1
3	—	WHT	—	16GA	—	302	—	E	2
3	—	WHT	—	16GA	—	303	—	E	3
3	—	WHT	—	16GA	—	304	—	E	4
3	—	WHT	—	16GA	—	305	—	E	5
3	—	WHT	—	16GA	—	306	—	E	6
3	—	WHT	—	16GA	—	307	—	E	7
3	—	WHT	—	16GA	—	308	—	E	8
3	—	WHT	—	16GA	—	309	—	E	9
3	—	WHT	—	16GA	—	310	—	E	10
3	—	WHT	—	16GA	—	311	—	E	11
3	—	WHT	—	16GA	—	312	—	E	12
3	—	WHT	—	16GA	—	313	—	E	13
3	—	WHT	—	16GA	—	314	—	E	14
3	—	WHT	—	16GA	—	315	—	E	15
3	—	WHT	—	16GA	—	316	—	E	16
3	—	WHT	—	16GA	—	317	—	E	17
3	—	WHT	—	16GA	—	318	—	E	18
3	—	WHT	—	16GA	—	319	—	E	19
3	—	WHT	—	16GA	—	320	—	E	20
3	—	WHT	—	16GA	—	321	—	E	21
3	—	WHT	—	16GA	—	322	—	E	22
3	—	WHT	—	16GA	—	323	—	E	23
3	—	WHT	—	16GA	—	324	—	E	24
3	—	WHT	—	16GA	—	325	—	E	25
3	—	WHT	—	16GA	—	326	—	E	26
3	—	WHT	—	16GA	—	327	—	E	27
3	—	WHT	—	16GA	—	328	—	E	28
3	—	WHT	—	16GA	—	329	—	E	29
3	—	WHT	—	16GA	—	330	—	E	30
3	—	WHT	—	16GA	—	331	—	E	31
3	—	WHT	—	16GA	—	332	—	E	32
3	—	WHT	—	16GA	—	333	—	E	33
3	—	WHT	—	16GA	—	334	—	E	34
3	—	WHT	—	16GA	—	335	—	E	35
3	—	WHT	—	16GA	—	336	—	E	36
3	—	WHT	—	16GA	—	337	—	E	37
3	—	WHT	—	16GA	—	338	—	E	38
3	—	WHT	—	16GA	—	339	—	E	39
3	—	WHT	—	16GA	—	340	—	E	40

420



CONN. A

PD-1547B

CONNECTOR	ITEM	PART NUMBER	QTY.
A & B	SHELL	DEUTSCH DRC 16-40 SA	1 EA
	CONTACT	DEUTSCH 0462-209-16141	40 EA
	BOOT	DEUTSCH DRC-40-BT	1 EA

1	—	E	301	—	16GA	—	WHT	—	3
2	—	E	302	—	16GA	—	WHT	—	3
3	—	E	303	—	16GA	—	WHT	—	3
4	—	E	304	—	16GA	—	WHT	—	3
5	—	E	305	—	16GA	—	WHT	—	3
6	—	E	306	—	16GA	—	WHT	—	3
7	—	E	307	—	16GA	—	WHT	—	3
8	—	E	308	—	16GA	—	WHT	—	3
9	—	E	309	—	16GA	—	WHT	—	3
10	—	E	310	—	16GA	—	WHT	—	3
11	—	E	311	—	16GA	—	WHT	—	3
12	—	E	312	—	16GA	—	WHT	—	3
13	—	E	313	—	16GA	—	WHT	—	3
14	—	E	314	—	16GA	—	WHT	—	3
15	—	E	315	—	16GA	—	WHT	—	3
16	—	E	316	—	16GA	—	WHT	—	3
17	—	E	317	—	16GA	—	WHT	—	3
18	—	E	318	—	16GA	—	WHT	—	3
19	—	E	319	—	16GA	—	WHT	—	3
20	—	E	320	—	16GA	—	WHT	—	3
21	—	E	321	—	16GA	—	WHT	—	3
22	—	E	322	—	16GA	—	WHT	—	3
23	—	E	323	—	16GA	—	WHT	—	3
24	—	E	324	—	16GA	—	WHT	—	3
25	—	E	325	—	16GA	—	WHT	—	3
26	—	E	326	—	16GA	—	WHT	—	3
27	—	E	327	—	16GA	—	WHT	—	3
28	—	E	328	—	16GA	—	WHT	—	3
29	—	E	329	—	16GA	—	WHT	—	3
30	—	E	330	—	16GA	—	WHT	—	3
31	—	E	331	—	16GA	—	WHT	—	3
32	—	E	332	—	16GA	—	WHT	—	3
33	—	E	333	—	16GA	—	WHT	—	3
34	—	E	334	—	16GA	—	WHT	—	3
35	—	E	335	—	16GA	—	WHT	—	3
36	—	E	336	—	16GA	—	WHT	—	3
37	—	E	337	—	16GA	—	WHT	—	3
38	—	E	338	—	16GA	—	WHT	—	3
39	—	E	339	—	16GA	—	WHT	—	3
40	—	E	340	—	16GA	—	WHT	—	3

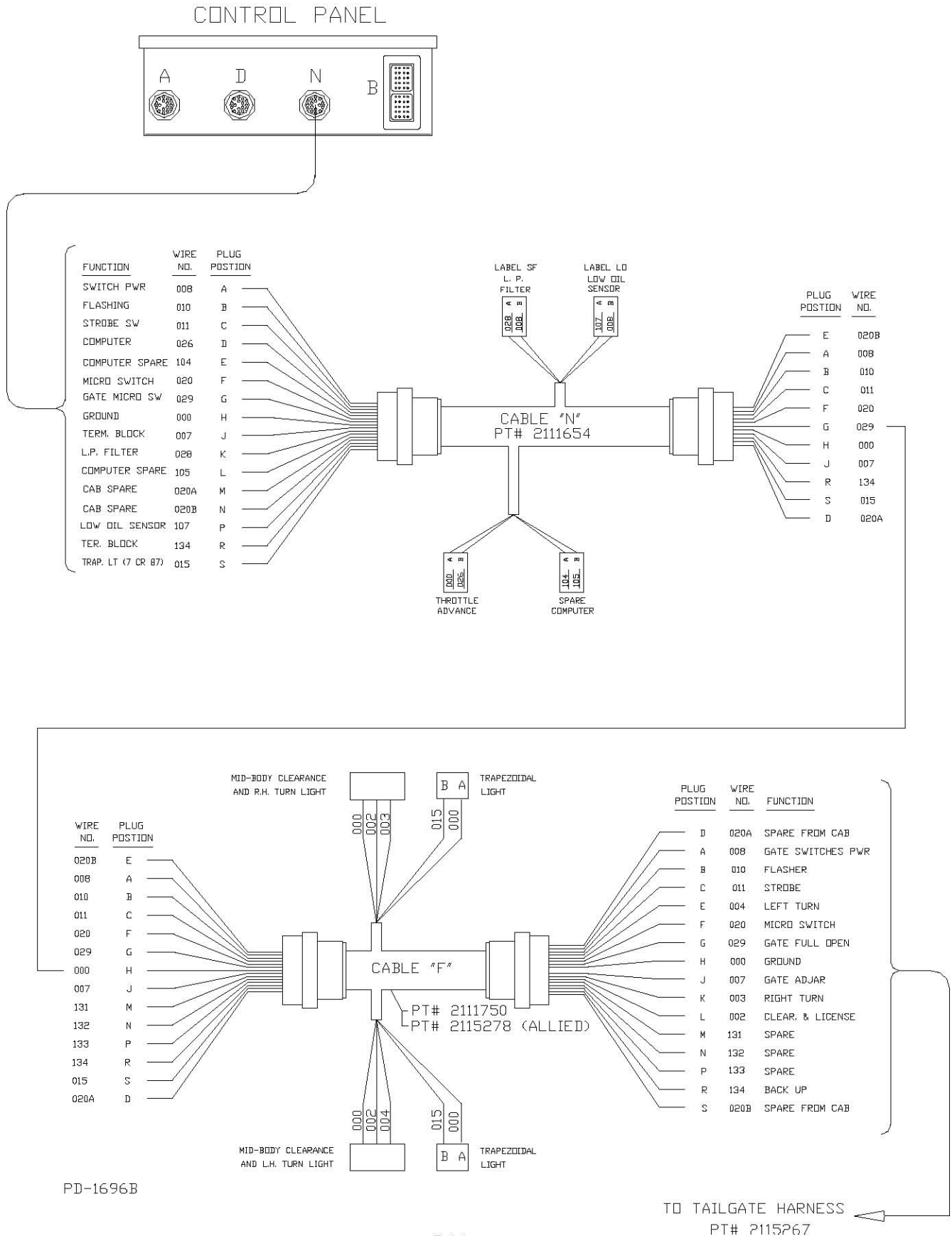
LEGEND

- ① DEUTSCH TERM. 0462-209-16141
- max WIRE NUMBER
- WIRE SPLICE POINT

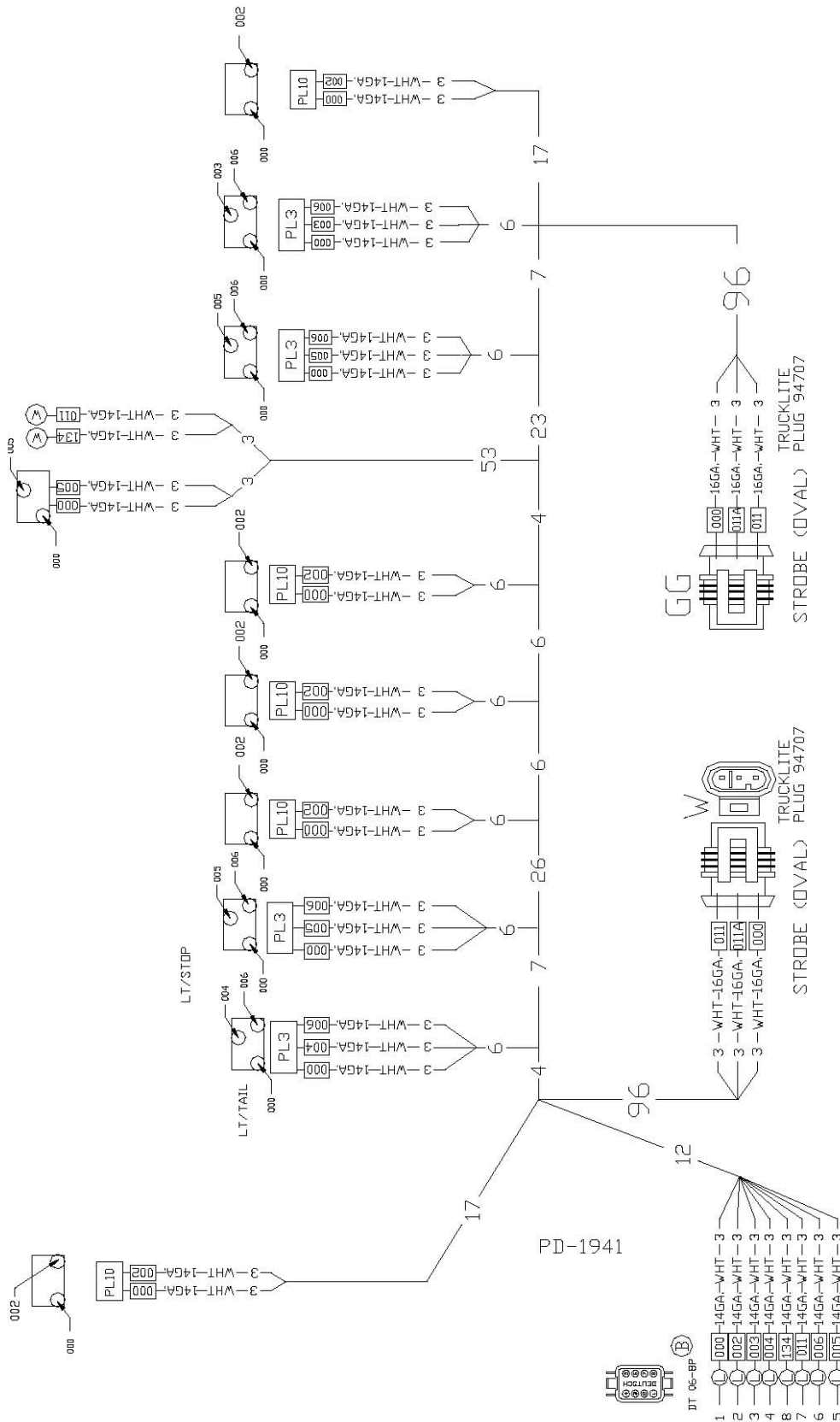
NOTES

ALL NON-INSULATED TERM. TO HAVE HEAT SHRINK ADDED AFTER CRIMPING.
ALL WIRE ENDS TO BE PROTECTED WITH HEAT SHRINK.
ALL UNUSED CAVITIES TO BE PLUGGED.
ALL CONNECTORS ARE TO BE PLUGGED.
ALL CONNECTORS ARE TO BE VIEWED FROM WIRE ENTRY SIDE.
HARNESS TO BE ENCASED IN MOVEN WRAP.
LABEL WIRE NUMBERS EVERY FOUR INCHES.
CONNECTORS TO BE CRIMPED WITH WHTING CONNECTORS AND CAVITY PLUGS OR EQUIVALENT
LENGTH IN INCHES
WIRE TO BE 16 GA TYPE

WIRING HARNESS 'N' (PART # 2111654)
WIRING HARNESS 'F' (PART # 2111750)
WIRING HARNESS 'F' (PART # 2115278) ALLIED



HARNESS, GATE TOP (2115268)



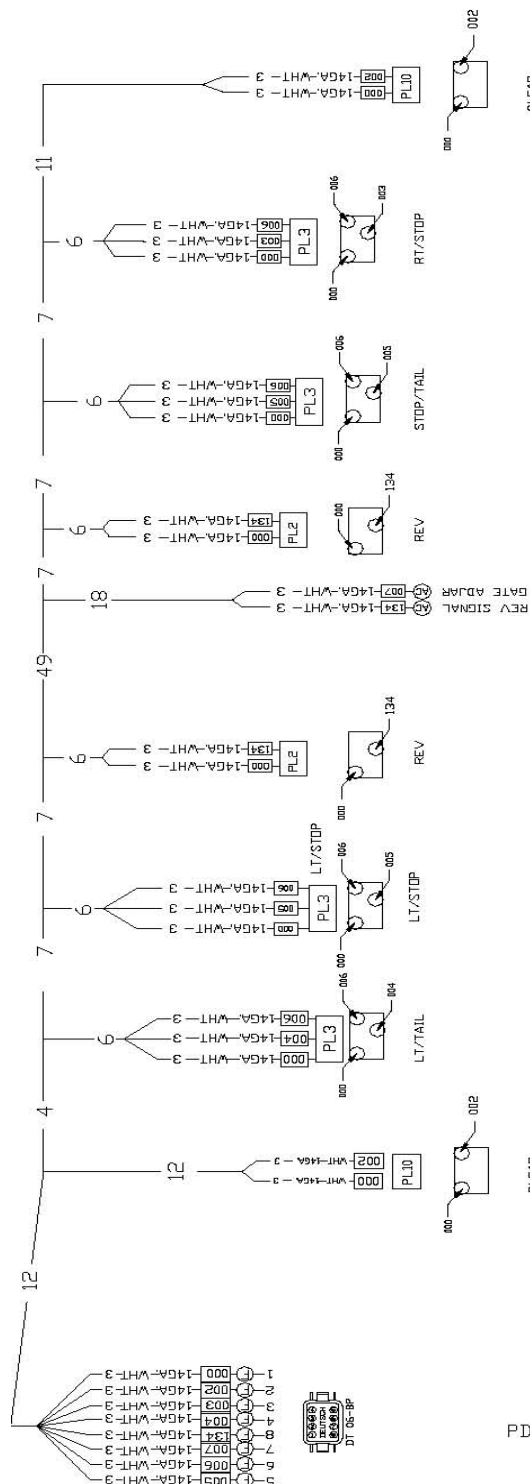
LEGEND

- AMP TERM. 61795, GROUNDING RING, SIZE 14-16 AWG
- DEUTSCH TERM. 0460-215-16141
- PACKARD TERM. 1208 9040
- DEUTSCH TERM. 0462-203-12141
- PACKARD TERM. 1212 9457
- BLUNT END
- AMP TERM. 61795, 14-16 AWG, UL-INSULATED, AMP 40725
- PACKARD TERM. 1212 4560
- PACKARD TERM. 1212 9493
- WIRE NUMBER

NOTES

- ALL NON-INSULATED TERM. TO HAVE HEAT SHRINK ADDED AFTER CRIMPING.
- ALL SPICES TO BE SOLDERED OR COMPARABLE AND PROTECTED WITH HEAT SHRINK.
- ALL UNUSED CAVITIES TO BE PLUGGED.
- ALL CONNECTORS ARE AS VIEWED FROM WIRE ENTRY SIDE.
- HARNESS TO BE ENCASED WITH WOVEN LOOM.
- LABEL WIRE NUMBERS EVERY FOUR INCHES.
- ALL BLUNT CUT ENDS TO BE HEAT SHRUNK.
- WIRE TO BE OF GAL TYPE.
- CONNECTORS TO BE CAPPED WITH MATING CONNECTOR AND CAVITY PLUGS OR EQUIVALENT.

HARNESS, GATE BOTTOM
002 (2115269)



PD-1942

PLATE NO.	FUNCTION
D 020A	SPARE FROM CAB
A 008	GATE SWITCHES PAIR
B 010	FLASHER
C 011	STROBE
E 004	LEFT TURN
F 020	MIDRO SWITCH
G 029	GATE FULL OPEN
H 000	GROUND
J 007	GATE ADJAR
K 003	RIGHT TURN
L 002	CLEAR & LICENSE
M 131	SPARE
N 132	SPARE
P 133	SPARE
R 134	BACK UP
S 020B	SPARE FROM CAB

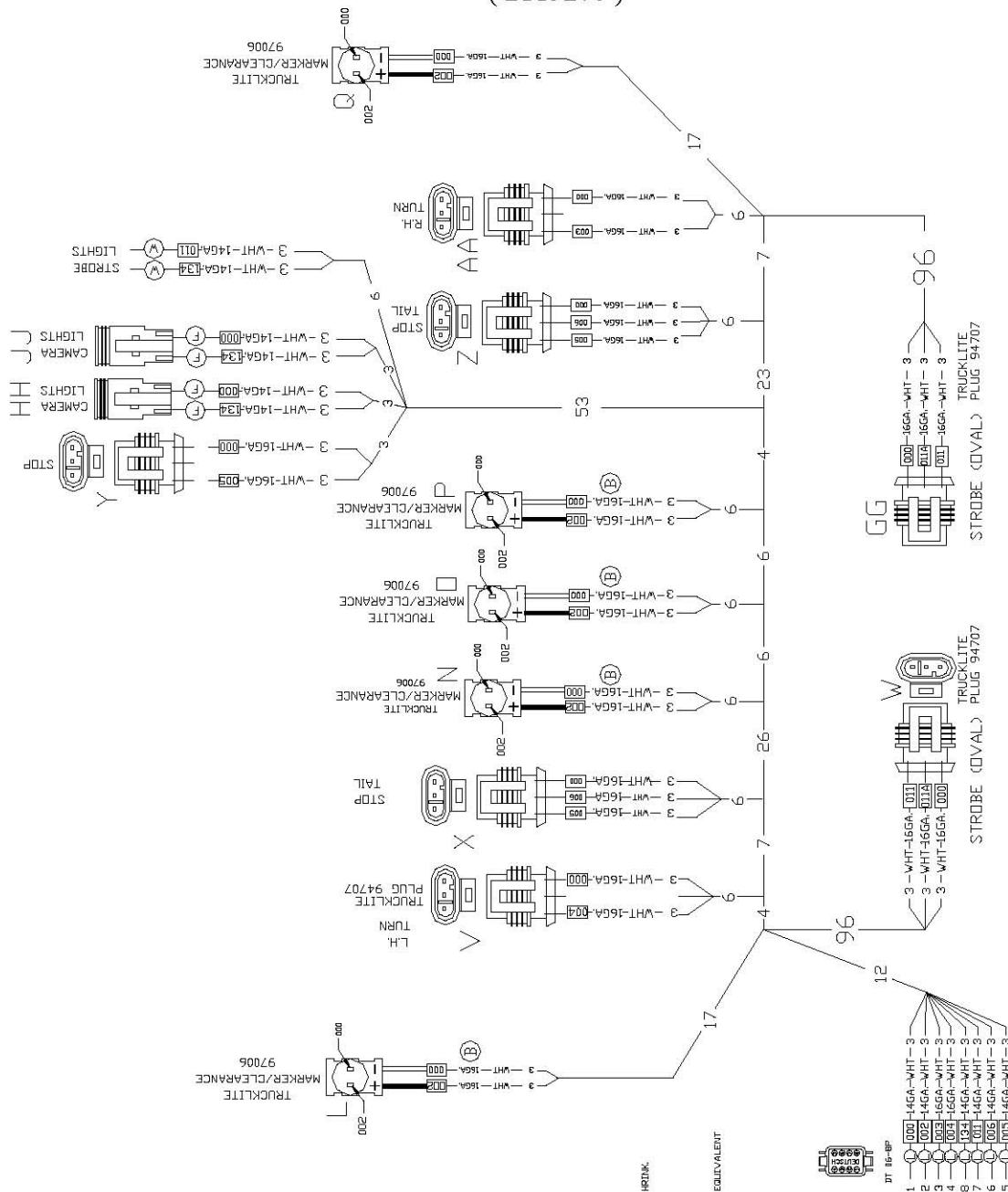
LEGEND

- ① AMP TERM. 61795, GROUNDING RING, SIZE 14-16 AWG
 ② DEUTSCH TERM. 0450-215-16141
 ③ PACKARD TERM. 1208 5940
 ④ DEUTSCH TERM. 0456-203-12141
 ⑤ PACKARD TERM. 1212 9497
 ⑥ BLUNT END
 ⑦ WID RING, 14-16 AWG, UN-INSULATED, AMP 40725
 ⑧ PACKARD TERM. 1212 4580
 ⑨ PACKARD TERM. 1212 9453
 WIRE NUMBER

NOTES

ALL NON-INSULATED TUBES TO HAVE HEAT SHRINK ADDED AFTER CRIMPING.
ALL CONNECTORS TO BE PLUGGED AND PROTECTED WITH HEAT SHRINK.
ALL UNUSED CAVITIES TO BE PLUGGED.
ALL CONNECTORS ARE AS VIEWED FROM WIRE ENTRY SIDE.
HARNESS TO BE ENGAGED WITH WOVEN Loom
LABEL WIRE NUMBERS EVERY FOUR INCHES
ALL BLUNT CUT EDGES TO BE HEAT SHRINK
CONNECTORS TO BE CAPPED WITH MATING CONNECTOR AND CAVITY PLUGS THE EQUIVALENT

HARNESS, GATE TOP, LED (2115270)



LEGEND

- ① AMP TERM. 41295, GROUNDING RING, SIZE 14-16 AWG
- ② DEUTSCH TERM. 0462-235-1641
- ③ PACKARD TERM. 1208 9040
- ④ DEUTSCH TERM. 0462-233-1241
- ⑤ AMP TERM. 41295, GROUNDING RING, SIZE 14-16 AWG
- ⑥ BLUNT END
- ⑦ #10 RING, 14-16 AWG, UN-INSULATED, AMP 40725
- ⑧ AMP TERM. 41295, GROUNDING RING, SIZE 14-16 AWG
- ⑨ PACKARD TERM. 1208 9040
- ⑩ WIRE NUMBER

NOTES

- ALL NON-INSULATED TERM. TO HAVE HEAT SHRINK ADDED AFTER CRIMPING.
- ALL SPICES TO BE SOLIDIFIED OR COMPARABLE AND PROTECTED WITH HEAT SHRINK.
- ALL CONNECTORS TO BE PROTECTED WITH HEAT SHRINK.
- ALL CONNECTORS ARE AS VIEWED FROM WIRE ENTRY SIDE.
- HARNESS TO BE ENGAGED WITH WOVEN LDM.
- WIRE NUMBERS EVERY FOUR INCHES.
- ALL WIRE TO BE CAPED WITH HEAT SHRINK.
- WIRE TO BE OF GALV. TYPE.
- CONNECTORS TO BE CAPED WITH MATING CONNECTOR AND CAVITY PLUGS OR EQUIVALENT

PD-1943

PD-1944

12 4 7 49 7 7 6 11

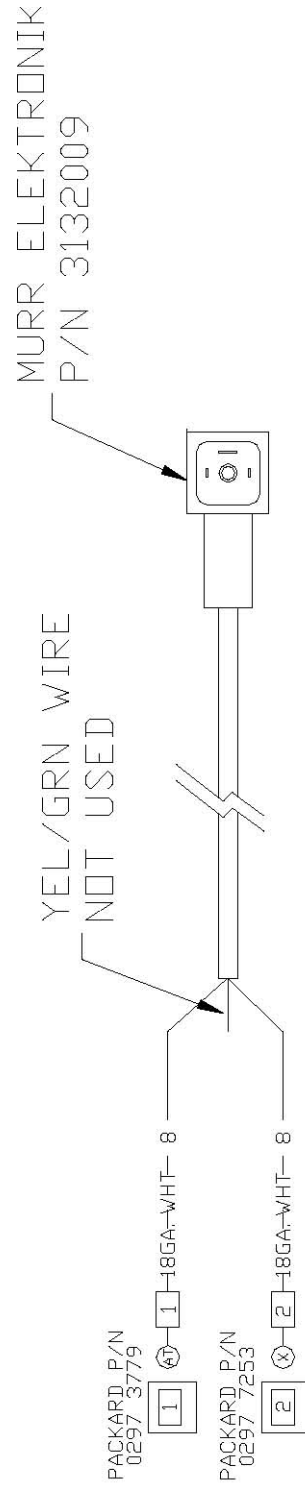
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LEGEND

- ⊗ AMP TERM. 61795, GROUNDING RING, SIZE 14-16 AWG
- ⊗ DEUTSCH TERM. 1450-215-18141
- ⊗ PACKARD TERM. 1280 5010
- ⊗ DEUTSCH TERM. 1456-213-2141
- ⊗ PLUG TERM. 1212 5457
- ⊗ BLUNT END
- ⊗ #10 RING, 14-16 AWG, UN-INSULATED, AMP 40725
- ⊗ PACKARD TERM. 1212 4580
- ⊗ PACKARD TERM. 1212 5493
- ⊗ WIRE NUMBER

ALL NON-INSULATED TERN TO HAVE HEAT SHRINK ADDED AFTER CRIMPING.
ALL SPICES ARE SOLID, NON-CORROSIWE AND PROTECTED WITH HEAT SHRINK.
ALL WIRING MUST BE PROTECTED BY HEAT SHRINK.
ALL CONNECTORS ARE TO BE PLUGGED.
ALL CONNECTORS ARE TO BE VIEWED FROM WIRE ENTRY SIDE.
HARNESS TO BE ENGAGED WITH WOVEN LOOM
LABEL WIRE NUMBERS EVERY FOUR INCHES
ALL LABEL CUT ENDS TO BE HEAT SHRINK
ALL CONNECTORS TO BE CAPED WITH MATING CONNECTOR AND CAVITY PLUGS OR EQUIVALENT

CABLE, DIN CONNECTOR

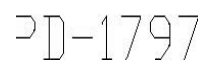


PD-1861

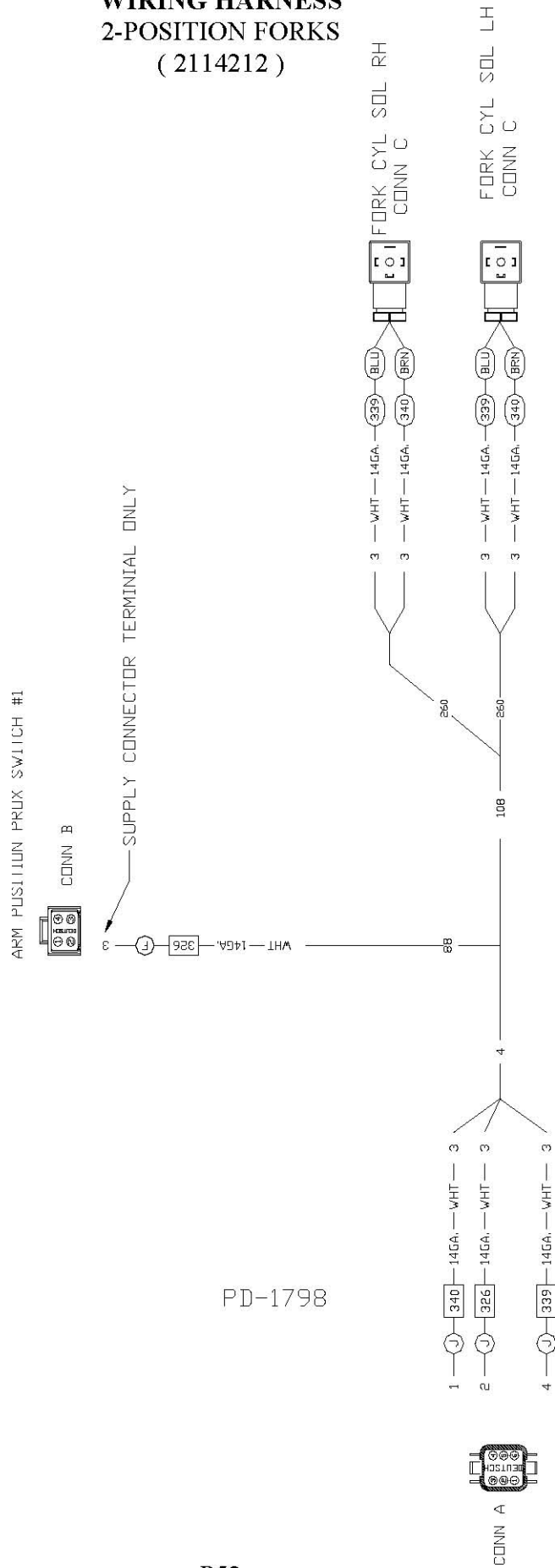
(2111833)

- ③ PACKARD, 16-14 GA, 0297 7705
- ④ PACKARD, 16-14 GA, 0890 5807

2-POSITION FORKS
(2114427)



WIRING HARNESS **2-POSITION FORKS** **(2114212)**



PD-1798

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