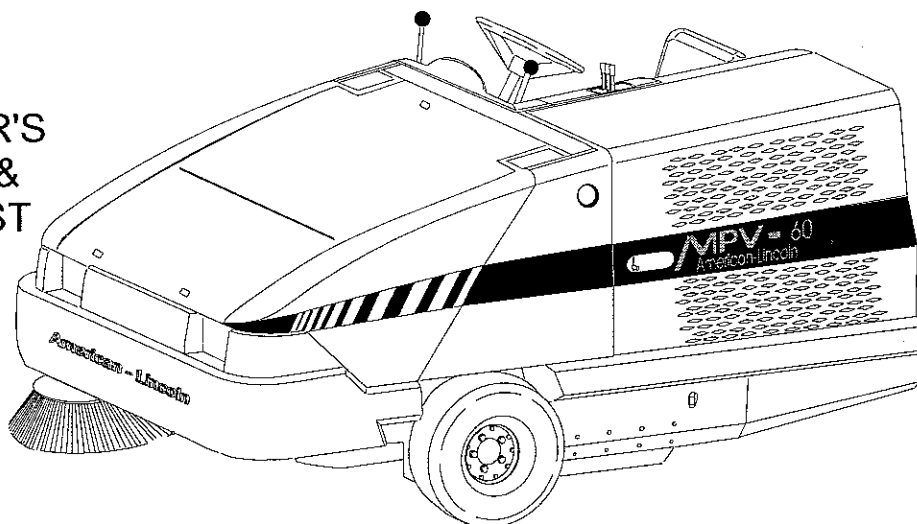


American-Lincoln®

OPERATOR'S
MANUAL &
PARTS LIST



MPV 60
POWER
SWEEPER

Beginning with Serial No. 480490

READ THIS BOOK

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If you or your operator (s) cannot read English, have this manual explained fully before attempting to operate this machine.

Si Ud. o sus operadores no pueden leer el Inglés, se hacen explicar este manual completamente antes de tratar el manejo o servicio de esta máquina.

All directions given in this book are as seen from the operator's position at the rear of the machine.

For new books, write to: American-Lincoln, Inc., 1100 Haskins Road, Bowling Green, Ohio 43402



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SPECIFICATIONS

SWEEPING PATH	60 inches (152 cm) with Single Side Broom
TRAVEL SPEED	0 - 8 MPH
TURNING RADIUS	
Left	64 inches (162 cm)
Right	90.5 inches (230 cm)
DIMENSIONS	
Length	96.25 inches (249 cm)
Width	62 inches (157 cm)
Height	50.75 (129 cm)
Height W/Overhead Guard	78 inches (198 cm)
Wheel Base	43 inches (109 cm)
Track	55 inches (138 cm)
WEIGHT	
Standard Machine	2800 lb. (1271 kg) (Empty Machine)
TIRES	
Type	Pneumatic
Front	Two (2) 18 inch (46 cm) x 5.80 x 8 inch on 7 gauge rim assy'
Rear	One (1) 18 inch (46 cm) x 5.80 x 8 inch on 2 piece rim assy '
RAMP CLIMBING	
Sweeping	12 degrees
Transporting	12 degrees
ENGINE DATA	
Ford 411 DIS Engine	
Bore and Stroke	2.7 x 2.97 in. (6.87 x 7.55 cm)
Oil Capacity	3.5 quarts (3.25 liters)
Displacement	4 cylinders, 1.1 liters (67 CID)
Fuel	"Regular" Unleaded Gasoline
Ford 413	
Bore and Stroke	2.91 x 2.97 in. (7.39 x 7.54 cm)
Oil Capacity	3.5 quarts (3.3 liters)
Displacement	1.3 liters (79 CID)
Fuel	"Regular" Unleaded Gasoline
Perkins 104.19 Diesel	
Bore and Stroke	8.307 x 3.543 in. (8.4 x 9.0 cm)
Oil Capacity	6.5 quarts (6.2 liters)
Displacement	4 cylinders, 2 liters (122 CID)
Fuel	Minimum cetane number 40
MAIN BROOM	
One piece plastic core disposable type. Broom position can be set to "restricted down" or "free floating"	
Length	45 inches (114 cm)
Diameter	14 inches (35.6 cm)
Bristle Length	3.25 inches (8.26 cm) long
Optional Bristle Types	Nylon (Herringbone) High Density Nylon Proex and Wire Poly and Wire Natural Fiber and Wire

SPECIFICATIONS

SIDE BROOM

Rotary disposable type protected by rotary guard. Floats over uneven surfaces and is adjustable for wear.

Diameter	23 inches (58 cm)
Optional Bristle Types	Wire Nylon (standard) Polypropylene

STEERING

Full power steering with single rear wheel steering.

Operator's Wheel Diameter	15 inches (38 cm)
---------------------------	-------------------

HOPPER

Sweep Opening	43 inches (109 cm)
Volumetric Capacity	14 cubic feet
Weight Capacity	1200 lb. (447.6 kg)
Floor Length	34.25 inches (87 cm)
Ground Clearance	5.5 inches (14 cm)

FILTRATION SYSTEM

Air passes through water resistant panel filter that controls dust to one (1) micron in size

Filtering Area	88 square feet (8.18 m ²)
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HYDRAULIC SYSTEM

Main Broom, Side Broom, and Vacuum Fan are hydraulically driven. Oil Cooler keeps fluid cool.

Propelling-Variable Displacement Pump

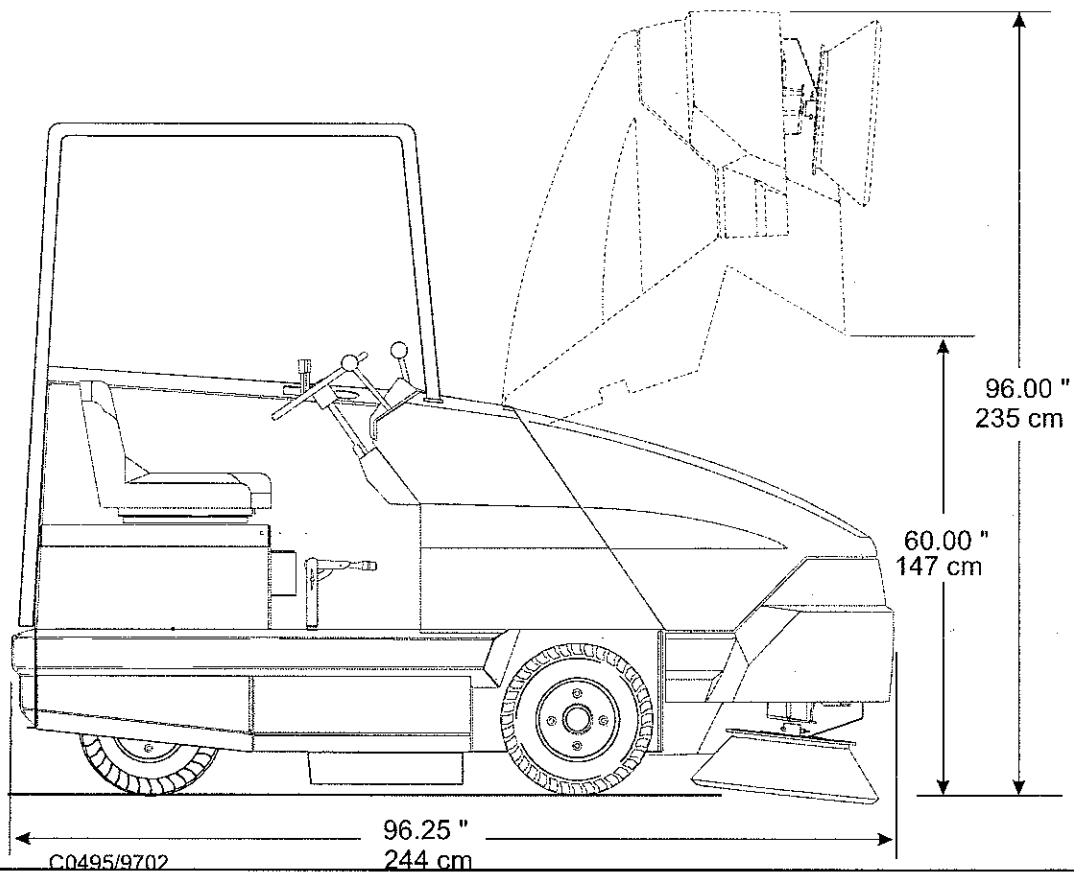
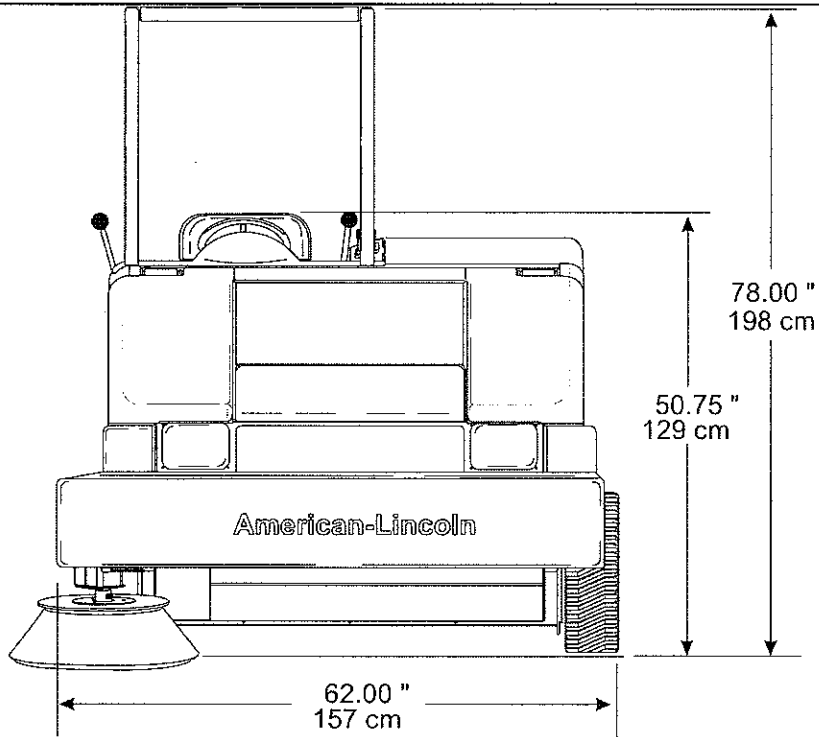
CONTROLS AND INSTRUMENTS

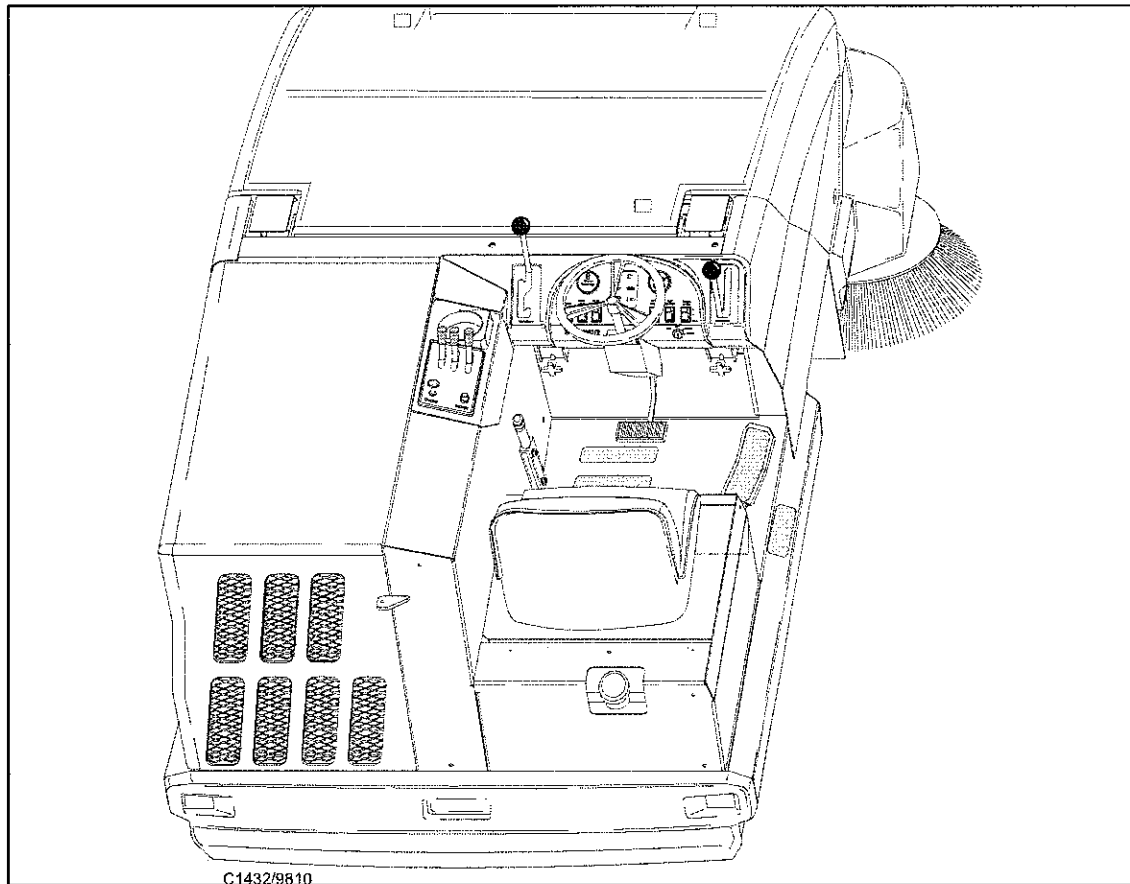
-Mechanical Foot Brake	-Hand Operated Parking Brake
-Key Start Switch	-Oil Pressure Light
-Water Temperature Light	-3 position Electronic Governor
-Dust Control Switch	-Main Broom and Side Broom controls
-Hopper Raise/Lower Control	-Clogged Filter Indicator
-Electric Fuel Gauge	-Hour Meter
-Electronic Timed Filter Shaker	-Head and Tail Lights
-No tool dust filter inspection	-Side Broom Guard
-Fluid Sight Level Gauge	-Push Button Horn
-Control Handle for Side Broom Lift	-Control Handle for Main Broom Lift
-Low Oil Shutdown	-Charging System Light
-2 speed Sweeping	-Single Pedal Control for travel speed, forward/reverse motion

OPTIONAL EQUIPMENT

-Back-Up Alarm	-Overhead Guard
-Side Broom Spotlight	-Cab with Pressurizer
-Rear Work Light	-Cab Heater
-Turn Signals	-Cab Defroster
-Blower Wand	-Windshield Wiper (For Cab)
-Vac Side Broom	-In Hopper Temperature Sensor
-Spark Arrestor	-Dome Light
-Purifier Muffler	-Protectoseal Gas Cap
-Red Strobe Light without Overhead Guard	-Solid Cushion Tires
-Amber Strobe Light without Overhead Guard	-Vac Wand
-Red Strobe Light with Overhead Guard	-Fire Extinguisher (Machine Mounted)
-Amber Strobe Light with Overhead Guard	-Heavy Duty Air Cleaner
-Brake Lights	-Tie Down Kit
-Suspension Seat	-Farr Air Cleaner
-Electronic Continuous Dust Control System	-4" Vac Wand
-LP Gas Powered	

MACHINE DIMENSIONS





C-1432

C1432/9810

FIGURE 1

YOUR SWEEPER HAS BEEN SHIPPED COMPLETE, BUT DO NOT ATTEMPT TO OPERATE WITHOUT READING AND FOLLOWING THESE INSTRUCTIONS.

PREPARATION

1. Uncrate the sweeper and carefully remove packing material.
2. Inspect the battery connections.
3. Fill fuel tank with appropriate fuel.



WARNING

Risk of personal injury. Never fill fuel tank while engine is running. Always be sure gasoline container and sweeper are electrically connected prior to pouring fuel. This can easily be done by providing an insulated wire (Permanently attached to the container) with a battery clip attached to the other end.

4. Check engine crankcase oil level before starting engine.
5. Check radiator coolant level. Permanent type antifreeze is added at the factory to provide protection to approximately -35° F (-37° C). To retain this level of protection always add ½ part water to ½ part antifreeze.
6. Check oil level in hydraulic reservoir which is located in the engine compartment. The hydraulic reservoir is full when oil can be seen in the sight glass on the side of the reservoir. To get an accurate reading the hopper must be in the "DOWN" position. If oil is required add **HYDRAULIC FLUID ONLY**. Use Ford Automatic Transmission Fluid Type "F".

SAFETY PRECAUTIONS

THE FOLLOWING STATEMENTS ARE USED THROUGHOUT THIS MANUAL AS INDICATED IN THEIR DESCRIPTIONS:



DANGER

To warn of immediate hazards which will result in severe personal injury or death.



WARNING

To warn of hazards or unsafe practices which could result in severe personal injury or death.



CAUTION

To warn of hazards or unsafe practices which could result in minor personal injury.

ATTENTION

To warn of unsafe practices which could result in extensive equipment damage.

NOTE

To give important information or to warn of unsafe practices which could result in equipment damage.

THE FOLLOWING INFORMATION SIGNALS POTENTIALLY DANGEROUS CONDITIONS TO THE OPERATOR OR EQUIPMENT. READ THIS MANUAL CAREFULLY. KNOW WHEN THESE CONDITIONS CAN EXIST. THEN, TAKE NECESSARY STEPS TO TRAIN MACHINE OPERATING PERSONNEL.

FOR THE SAFE OPERATION OF THIS MACHINE, READ AND UNDERSTAND ALL WARNINGS, CAUTIONS AND NOTES.



WARNING

Machines can ignite flammable materials and vapors. Do not use with or near flammable items such as: gasoline, grain dust, solvents and thinners.



WARNING

Heavy machinery. Improper use can cause personal injury.



WARNING

Operate only when lids, doors, and access panels are securely closed.



WARNING

Use care when reversing machine in confined area.



WARNING

When servicing the machine disconnect the battery first to prevent possible injury.



WARNING

When working on the machine, empty hopper, disconnect battery, clear area of people and obstructions, use additional people and proper procedures when lifting the machine.



WARNING

Always empty the Hopper and Disconnect Battery before doing maintenance.



WARNING

You must have training in the operation of this machine before using it. READ THE INSTRUCTION BOOK.



WARNING

Do not operate this machine unless it is completely assembled.



WARNING

Do not use this machine as a step or furniture.

SAFETY PRECAUTIONS



WARNING

Be careful when operating the machine on a ramp or incline. Always move slowly on a ramp. Do not turn this machine on a ramp. Do not stop and leave this machine on a ramp.



WARNING

Stop and leave this machine on a level surface. When you stop the machine, put the power switch in the "OFF" position and Engage the parking brake.



WARNING

To prevent injury, and damage to the machine, do not lift the machine or move it to an edge of a stair or loading dock.



WARNING

Lead acid batteries generate gases which can cause an explosion. Keep sparks and flames away from batteries. NO SMOKING. Charge batteries only in area with good ventilation.



WARNING

Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal objects across the battery terminals, or the tops of batteries.



WARNING

Maintenance and repairs must be done by authorized personnel only. Tighten all fasteners. Keep adjustments according to the specifications given in the service manual for the machine. Keep the electrical parts of the machine dry. For storage, keep the machine in a building.



WARNING

Make sure that all labels, decals, warnings, cautions and instructions are fastened to the machine. Get new labels and decals from American Lincoln.



WARNING

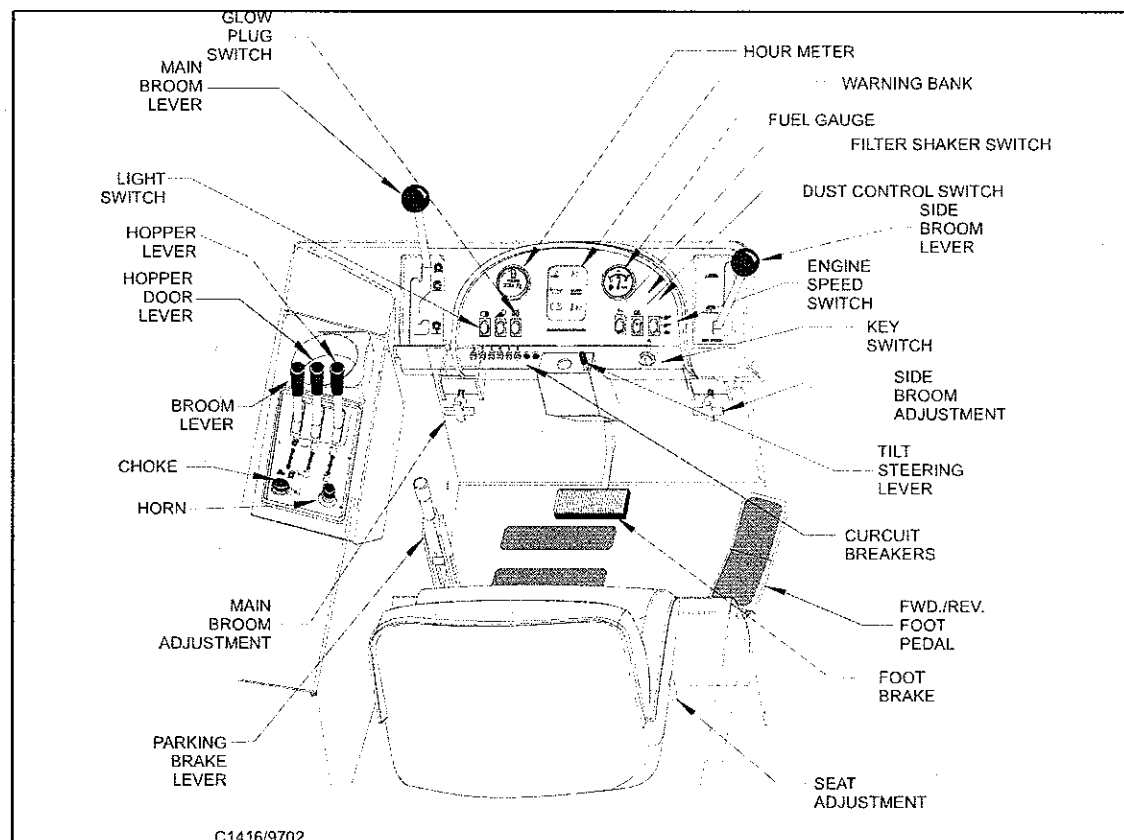
To maintain stability of this sweeper in normal operation, the counterweights, overhead guard, rear bumper guard or any similar equipment installed by the manufacturer as original equipment, should never be removed. If it becomes necessary to remove such equipment for repair or maintenance. This equipment must be reinstalled before the sweeper is placed back in operation.



WARNING

The hopper could lower unexpectedly and cause personal injury. Engage the hopper safety arm before working under the hopper.

SWEeper CONTROLS/INSTRUMENTS



C-1416

FIGURE 2

HORN BUTTON

The horn button is located on the left side console next to the choke control. Push the button to sound the horn. The horn button is always active.

LIGHT SWITCH

The light switch is located on the instrument panel and controls the headlights, taillights and instrument panel lights. To turn on the lights press the upper portion of the switch. The upper portion of the switch will illuminate to indicate the lights are "ON". The light switch is always active.

GLOW PLUG SWITCH (Diesel Only)

The glow plug switch is a momentary type rocker switch that is located on the instrument panel and is used to start the diesel engine. It should be noted that under no circumstances should Ether or other starting aids be used in conjunction with the glow plugs. To prevent damage to the glow plug switch, do not use for more than 60 seconds. The key switch must be placed in the "ON" position before using the glow plug switch.

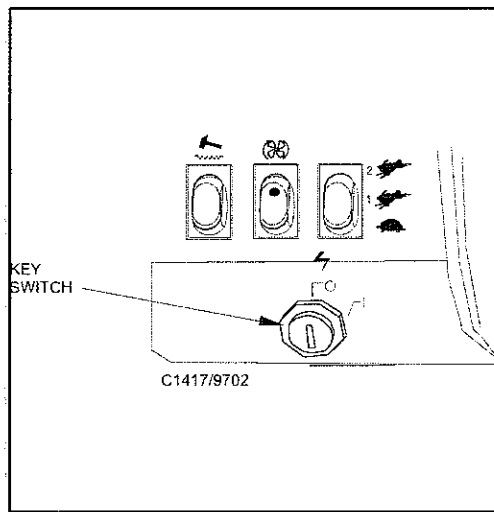
CHOKE CONTROL

The choke control is located on the left side console (gasoline machines only) and is used to aid in starting the gasoline engine. The choke governs the mixture of air and fuel during the combustion cycle of the engine operation. The choke should be pulled up during the start of the engine and then gradually pushed back down after engine warm up.

To turn on the choke for "Cold" starting, pull "UP" on the control.

To turn off the choke once engine has been started gradually push the control "DOWN".

SWEeper CONTROLS/INSTRUMENTS



C-1417 FIGURE 3

KEY SWITCH (figure 3)

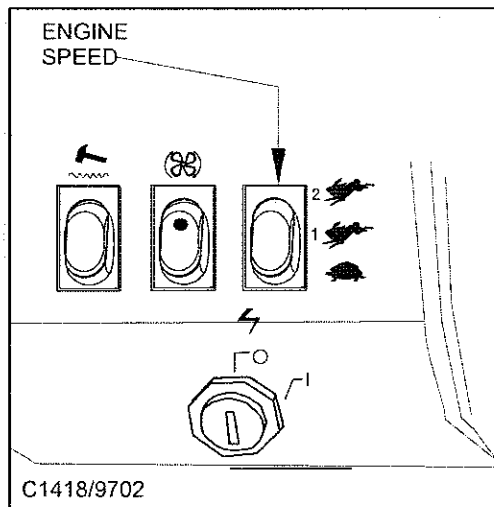
The keyed ignition switch is located on the instrument panel to the right of the steering column. The key switch is a four position switch that controls power to the sweeper systems and accessories.

The "OFF" position (0 position) will shut off the engine.

The IGN./ON position (1 position) provides power to all sweeper systems and accessories.

The "START" position (one position clockwise of 1 position) is momentary and provides power to the starter motor.

The "ACC" (one position counterclockwise of 0 position) position is the same as the IGN./ON position and provides power to all electrical systems and accessories.



C-1418 FIGURE 4

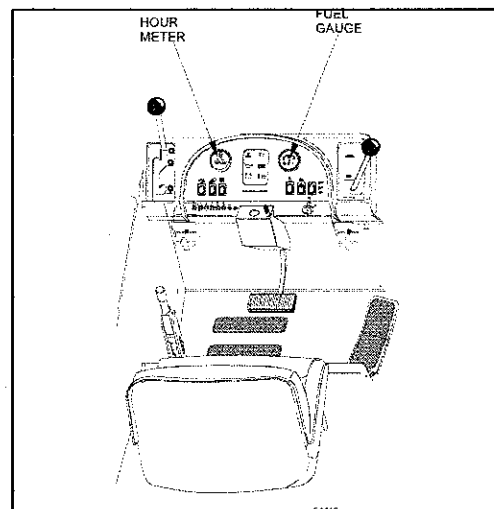
ENGINE SPEED SWITCH (figure 4)

The engine is controlled by a three position switch which is located on the instrument panel above the key switch. The switch position determines the governed operating speed of the engine.

Place the speed switch in the "IDLE" position to start the sweeper.

Place the switch in the "1" Position for transport and when normal sweeping action is desired.

Place the switch in the "2" Position for transport and sweeping light weight debris.



C-1419 FIGURE 5

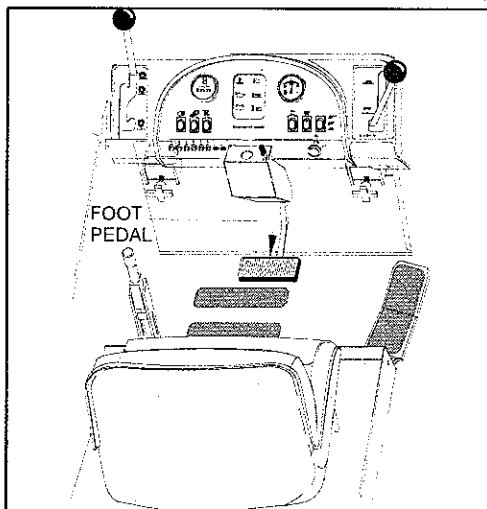
HOURL METER (figure 5)

The hour meter is located on the instrument panel. The meter is activated when the key switch is placed in the "ON" position. The meter indicates actual "run" time of the sweeper. The meter can be used to determine when maintenance should be done on the sweeper

FUEL GAUGE (figure 5)

The fuel gauge is located on the instrument panel and indicates the level of fuel in the tank. The fuel gauge is powered by the key switch. The key switch must be in the "ON" position for the fuel gauge to work. The fuel gauge is not included on machines that use Liquid Propane fuel.

SWEeper CONTROLS/INSTRUMENTS



C-1421A

FIGURE 6

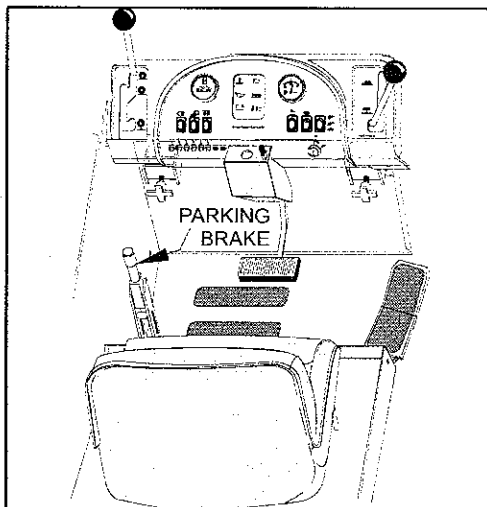
FOOT BRAKE (figure 6)

The foot brake pedal is located on the floor of the operator's compartment to the left of the foot pedal. To stop, use the sweepers front wheel brakes, by putting pressure on the brake pedal.

PARKING BRAKE (figure 7)

The parking brake lever is located on the operator's compartment left side panel near the floor. When engaged the parking brake "locks" the foot pedal in the down position.

- To engage the parking brake, place the lever in the upright position.
- To disengage the parking brake, move the lever forward.
- To Adjust The Parking brake "Grab" Turn the knob on the top of the lever.
- To increase "Grab" Turn the knob in a clockwise direction.
- To decrease "Grab" Turn the knob in a counterclockwise direction.



C-1421B

FIGURE 7

FOOT PEDAL (figure 8)

The Foot Pedal is located on the floor of operator's compartment to the right of the brake pedal. The foot pedal provides control of direction/speed and has an automatic safety feature that limits foot pedal travel while the hopper is raised. The pedal height is adjustable to provide for operator comfort.

TO GO FORWARD: Place pressure on the upper portion of the pedal. Speed increases when additional pressure is placed on the pedal.

TO GO BACKWARD: Put pressure on the lower portion of the pedal. Speed increases when additional pressure is placed on the pedal.

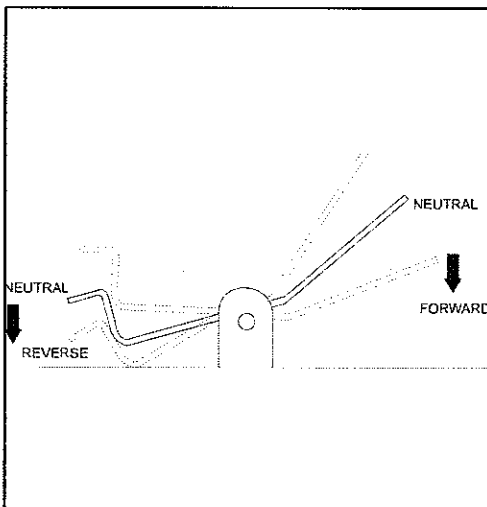
TO STOP: allow the pedal to return to the centered position.

To Increase braking action while sweeper is moving forward, gently put pressure on the lower portion of the pedal.

To Increase braking action while traveling in reverse, gently put pressure on the upper portion of the pedal.

To adjust the foot pedal height for operator comfort

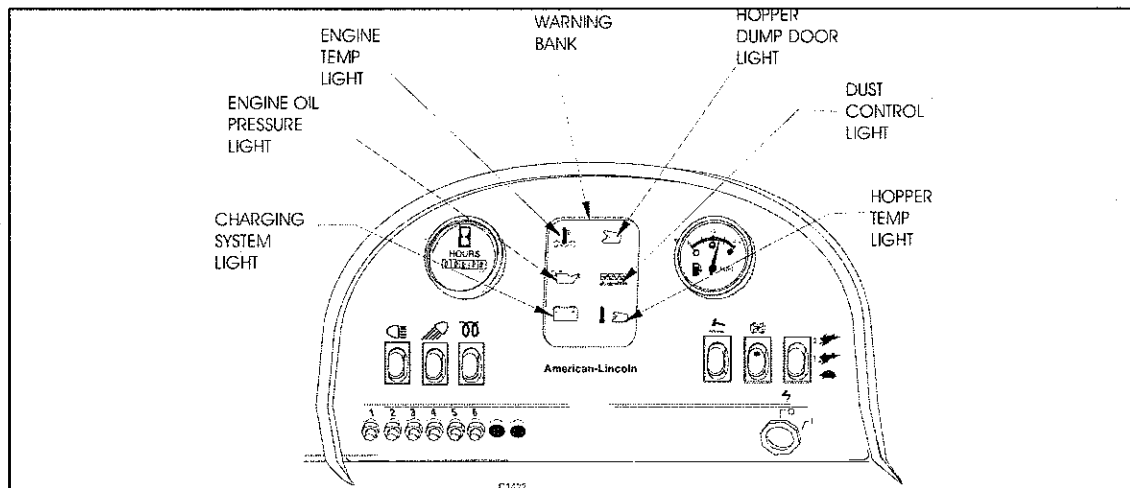
1. Remove the hairpin cotter from the adjustment pin.
2. Remove the adjustment pin from the foot pedal assembly.
3. Align the holes in the lower bracket with one of the four adjustment holes on the foot pedal to set the foot pedal height.
4. With the holes aligned at the desired height, insert the adjustment pin
5. Reinstall the hairpin cotter.



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FIGURE 8

SWEEPER CONTROLS/INSTRUMENTS

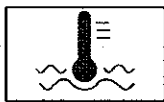


C-1422

FIGURE 9

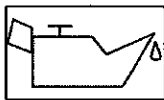
WARNING BANK

The Warning Bank is located on the instrument panel and provides the operator with six fault/status indicators for engine and sweeper systems. The Operator should monitor the indicators while sweeping. It is very important that the operator be familiar with the meaning of each indicator.



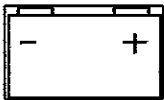
ENGINE TEMP LIGHT

The engine temperature light illuminates to indicate an engine cooling system fault. When this occurs the operator must turn off the sweeper immediately and have the cooling system serviced by a qualified service technician.



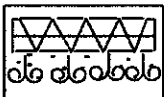
ENGINE OIL PRESSURE LIGHT

When the oil pressure drops below approximately 5 psi an automatic protection circuit shuts down the engine and illuminates the light to indicate low engine oil pressure. When this occurs have the sweeper serviced by a qualified service technician.



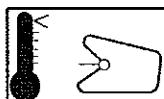
CHARGING SYSTEM LIGHT

The charging system light illuminates to indicate a charging system fault. When this occurs the sweeper charging system is not working properly and must be serviced by a qualified service technician.



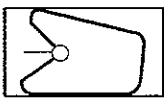
DUST CONTROL LIGHT

The Dust Control Light Illuminates to indicate that the dust control filter is clogged. When this occurs, stop sweeping and use the filter shaker to clear dirt and debris from the filter. After using the filter shaker continue sweeping.



HOPPER TEMPERATURE LIGHT (OPTION)

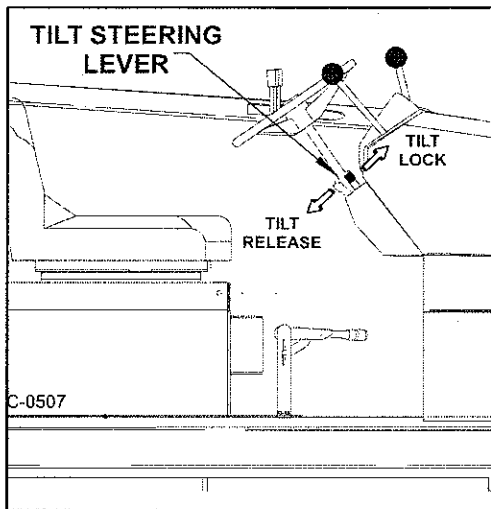
When the temperature of the air moving through the dust control system in the hopper exceeds 140° F, an automatic protection feature shuts down the dust control fan and illuminates the hopper temperature light. When this occurs shut down the sweeper and carefully investigate for a possible fire in the hopper. The temperature switch must be manually reset.



DUMP DOOR LIGHT

The dump door light will illuminate when the dump door is not fully open. The light warns the operator to open the hopper dump door completely before sweeping. Do not sweep when the light is illuminated.

SWEeper CONTROLS/INSTRUMENTS

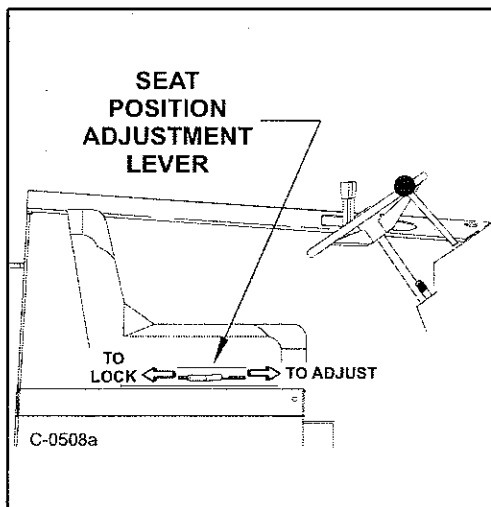


C-0507 FIGURE 10

TILT STEERING LEVER (figure 10)

The tilt steering lever is located near the base of the steering column and is spring loaded to the locked position.

To adjust the steering column tilt angle, Grasp the lever and pull back. While holding the lever, position the steering wheel to the desired angle, and release the lever to lock the column in place.

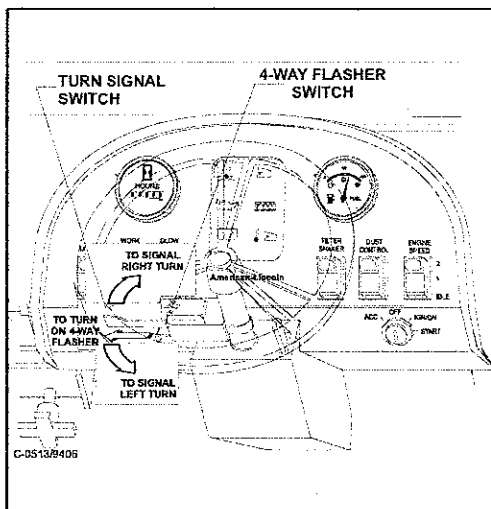


C-0508a FIGURE 11

SEAT POSITION ADJUSTMENT (figure 11)

The seat adjustment lever is located on the right side of the seat base. The lever is spring loaded to the "LOCK" position.

To adjust the seat, push "FORWARD" on the lever and move seat to desired position then release the lever to "LOCK" the seat in place.



C-0513 FIGURE 12

TURN SIGNALS - 4 WAY (OPTION) (figure 12)

The turn signal switch is located on the steering column and functions the same as a typical automotive turn signal. The operator must return the lever to the centered position after the turn has been completed.

To signal a right hand turn move the lever to the "FORWARD" position.

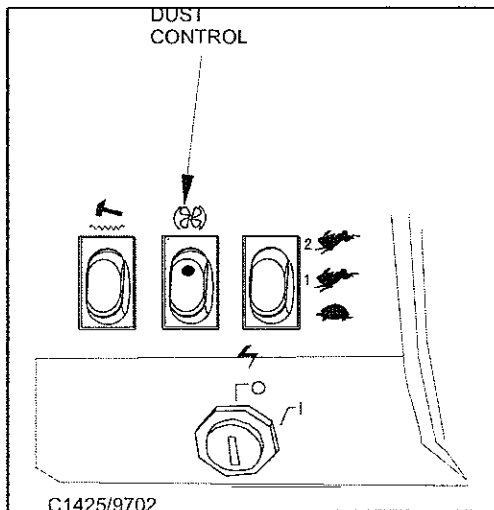
To signal a left hand turn position the lever to the "BACKWARD" position.

To use the 4-way Flashers pull out on the turn signal lever.

BACK UP ALARM (OPTION)

The backup alarm is activated by a switch in the foot pedal and automatically emits a loud audible noise when the machine is driven in reverse.

SWEEPER CONTROLS/INSTRUMENTS



C-1425

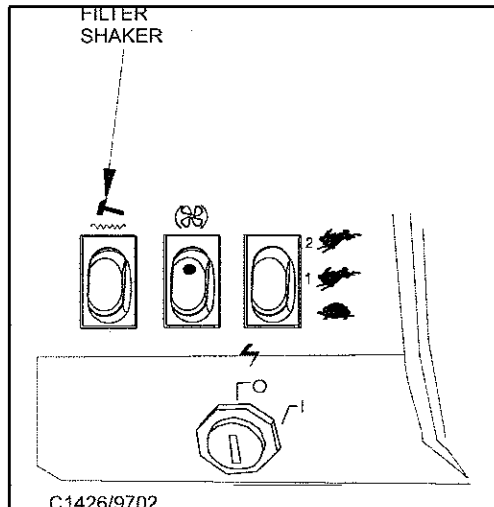
FIGURE 13

DUST CONTROL SWITCH (figure 13)

The dust control is a two position switch that is located on the instrument panel next to the engine speed switch. The switch controls the vacuum fan in the dust control system.

To turn on the dust control system for "NORMAL" Sweeping, press on the top portion of the switch.

To Turn off the dust control system for sweeping in wet conditions, press on the lower portion of the switch. This will prevent the filter from being damaged by water pickup while sweeping.



C-1426

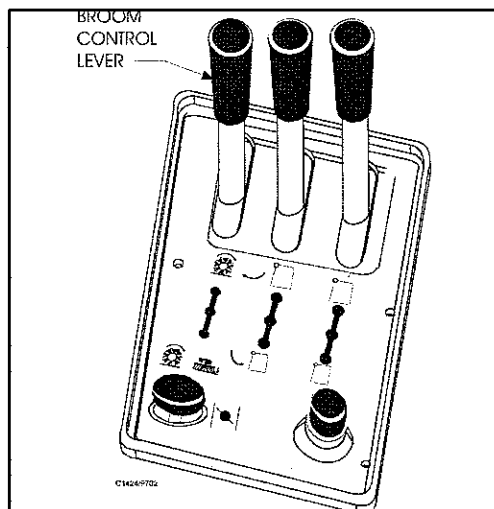
FIGURE 14

FILTER SHAKER SWITCH (figure 14)

The filter shaker switch is located on the instrument panel below the fuel gauge. This is a momentary switch that will activate the filter shaker motors for 20 to 30 seconds to clear the dust control filter. The impeller fan will stop when the filter shaker has been activated. The filter shaker will only operate with the hopper in the "DOWN" position.

Use the filter shaker to clear the filter when the dust control light on the warning bank illuminates and just before dumping the hopper.

To activate the filter shaker press the upper portion of the filter shaker switch momentarily and release. The filter shaker will operate for 20 to 30 seconds.



C-1424A

FIGURE 15

BROOMS CONTROL LEVER (figure 15)

The brooms control lever is located on the operator's compartment center console. The lever is a three position hydraulic valve that controls hydraulic power to the main broom and side broom.



WARNING

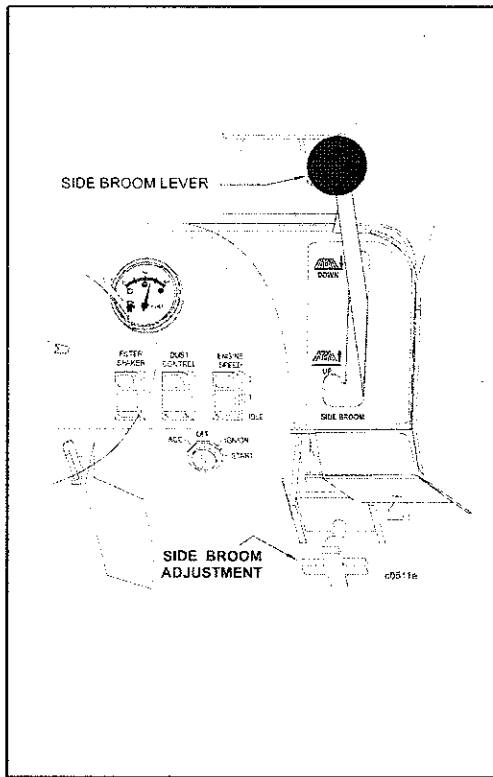
To prevent injury, Do not turn on the brooms with the hopper raised.

To turn on the main broom only, move the LEFT HAND lever to the forward position.

To turn on the main broom and the side broom, move the LEFT HAND lever fully backwards.

To turn off the brooms and provide hydraulic power to the hopper lift system place the lever in the center position.

SWEeper CONTROLS/INSTRUMENTS



C-0511A FIGURE 15

SIDE BROOM LEVER (figure 16)

The side broom lever is located on the right side of the instrument panel. The side broom lever raises and lowers the side broom. Use the brooms lever on the operator's center console to turn on the side broom.

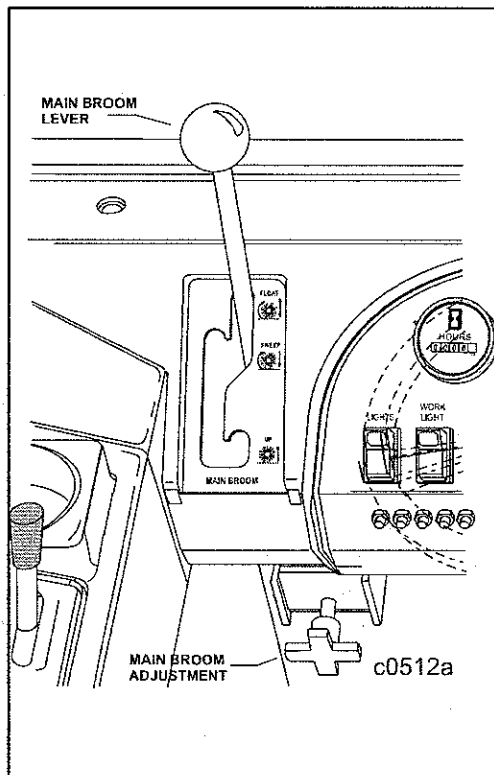
To raise the side broom, pull the lever back into the "UP" position.

To lower the side broom, move the lever out of the "UP" position and move it forward to the "DOWN" position.

SIDE BROOM ADJUSTMENT (figure 16)

The side broom lever has an adjustment for changing the sweep height to compensate for broom wear. The side broom adjustment is located under the right side of the instrument panel.

To Adjust the side broom height turn the threaded knob. (See page 30 for adjustment instructions)



C-0512 FIGURE 16

MAIN BROOM LEVER (figure 17)

The main broom lever is located on the left side of the instrument panel. The main broom lever has three positions and controls the main broom sweep height. Use the brooms lever on the operator's center console to turn on the main broom.

To lower the main broom, grasp the lever and move it to the left out of the "UP" position and place in the "SWEEP" or "FLOAT" position.

The "SWEEP" position is used for normal sweeping and should be used under most sweeping conditions.

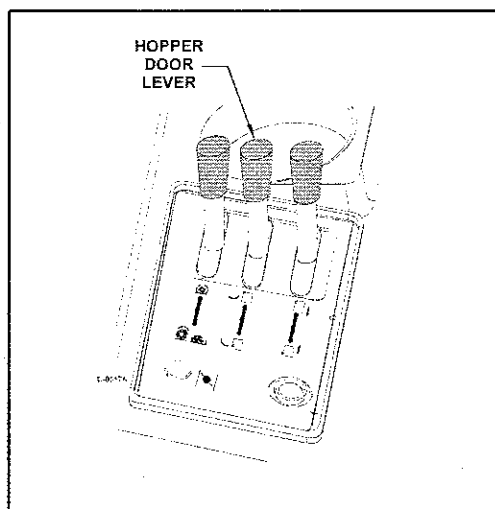
The "FLOAT" position is used for sweeping very uneven surfaces only. Using the Float position will cause premature wear on the main broom if used under normal operating conditions for extended periods of time.

MAIN BROOM ADJUSTMENT (figure 17)

The main broom lever has an adjustment for changing the sweep height to compensate for broom wear. The main broom adjustment is located under the left side of the instrument panel.

To Adjust the main broom height turn the threaded knob. (See page 29 for adjustment instructions)

SWEeper CONTROLS/INSTRUMENTS



C-0517B FIGURE 18

HOPPER DOOR LEVER (figure 18)

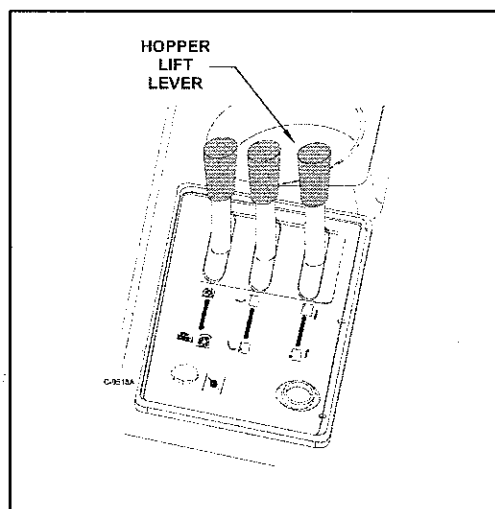
The hopper door lever is located on the operator's compartment center console and is used to close and open the hopper dump door. The lever is a three position hydraulic valve that is spring loaded to the center position which "HOLDS" the hopper door in position.

NOTE

To provide hydraulic power to the hopper controls, the broom control lever must be in the center "Neutral" Position

To ensure the door is fully open while sweeping, monitor the Hopper Dump Door light on the Warning Bank. The light will illuminate when the door is not fully open.

To open the hopper dump door for sweeping or dumping, push the CENTER lever forward in the "OPEN" direction until the hopper dump door light goes out.



C-0518A FIGURE 19

To close the hopper dump door for dumping or transporting, pull the CENTER lever fully back in the "CLOSE" direction and hold for 3 seconds or until you hear the door close.

HOPPER LIFT LEVER (figure 19)

The hopper lift lever is located on the operator's compartment center console. The lever is a three position hydraulic valve that controls the operation of the hopper lift system. The lever is spring loaded to the center position which stops hopper movement and "HOLDS" the hopper at the present position.

NOTE

To provide hydraulic power to the hopper controls, the broom control lever must be in the center "Neutral" Position

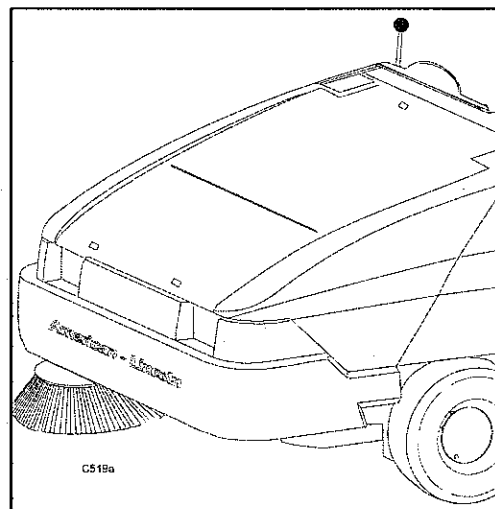
To raise the hopper for dumping, move the RIGHT HAND lever back to the "RAISE" position and hold until the hopper reaches the desired height, then release.



WARNING

To prevent injury, Do not turn on the brooms with the hopper raised.

To lower the hopper after dumping, move the RIGHT HAND lever forward to the "LOWER" position until the hopper is fully lowered and seated in the sweeper, then release.

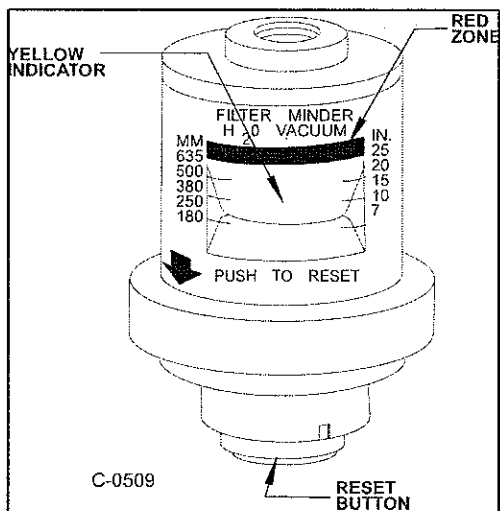


C-0519A FIGURE 20

HOPPER LID (figure 20)

The hopper lid provides the operator with easy access to the hopper debris compartment for refuse disposal or visual inspection. The dust control must be turned off before opening the hopper lid.

To open the hopper lid turn the dust control switch to the "OFF" position then unlatch and lift the front hinged lid. The Hopper lid must be closed while sweeping. Failure to close the door completely will cause poor dust control while sweeping.



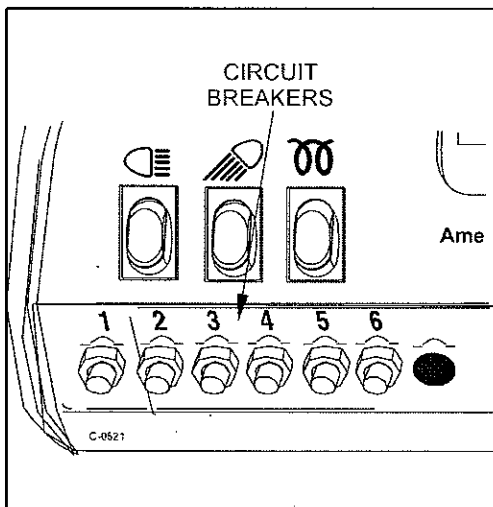
C-0509 FIGURE 21

ENGINE AIR FILTER ELEMENT INDICATOR (figure 21)

The engine air filter service indicator is located on air filter housing in the engine compartment and should be checked daily. The indicator measures the vacuum pressure of the engine intake air after it passes through the filter element. The vacuum will increase as the filter becomes clogged with dirt.

Service the air filter when the yellow indicator reaches the red band on the sight glass. The indicator needs to be reset after servicing the filter.

To reset the indicator press the rubber reset button.



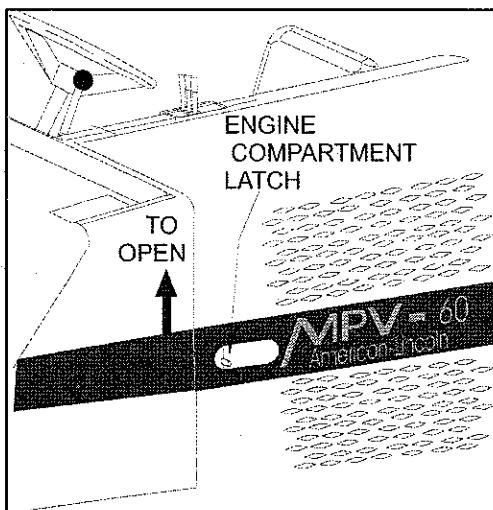
C-0521 FIGURE 22

CIRCUIT BREAKERS (figure 22)

The circuit breakers are located to the left of the steering wheel. When a circuit breaker "pops" out, this is an indication of an electrical problem that must be corrected before the breaker can be reset.

There can be up to eight circuit breakers in the row. They control the following circuits, beginning with number 1 on the left:

- CB-1 = Filter shaker motors
- CB-2 = Horn
- CB-3 = Starter relay
- CB-4 = Ignition
- CB-5 = Accessory
- CB-6 = Lighting
- CB-7 = Options
- CB-8 = Cab Options



C-1436 FIGURE 23

ENGINE COMPARTMENT LATCH (figure 23)

The engine cover encloses the entire engine, radiator and hydraulic reservoir assembly. The cover can be swung open to allow easy access to the engine and hydraulics for service or inspection.

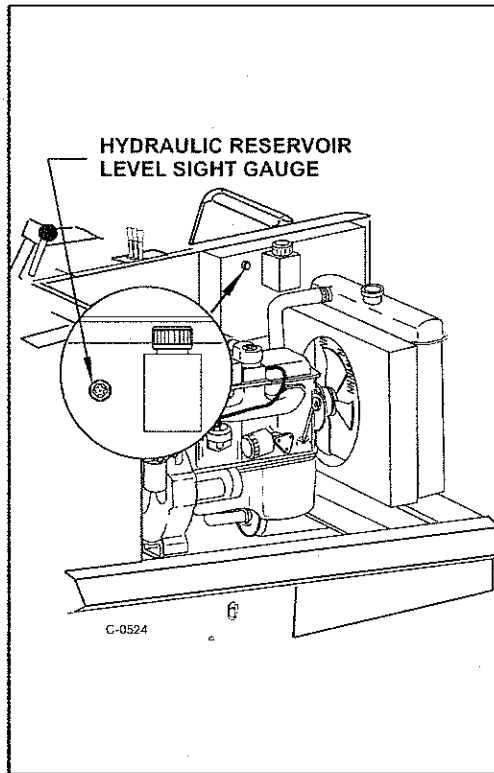


WARNING

Operate Only When Lids, Doors, And Access Panels Are Securely Closed.

To open the cover, lift the cover latch lever up. Swing the cover open.

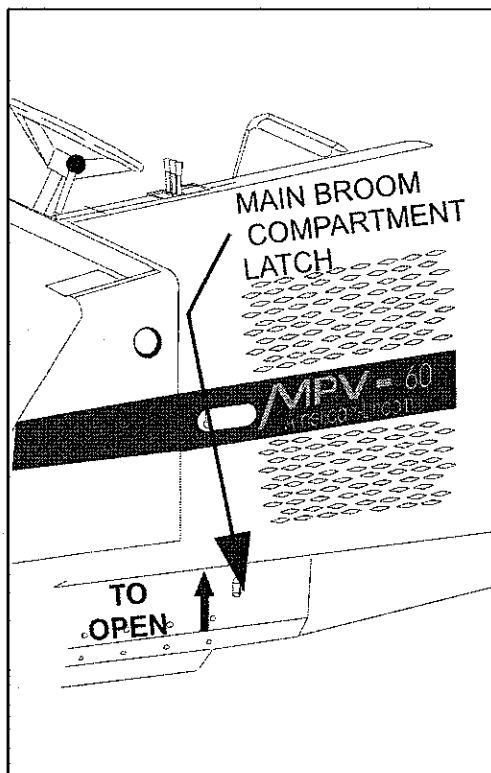
The cover will latch automatically when the cover is closed. After closing the engine cover, check to be certain the latch has fully engaged.



C-0524 FIGURE 24

HYDRAULIC RESERVOIR LEVEL SIGHT GAUGE (figure 24)

The sight gauge is located on the side of the hydraulic reservoir in the engine compartment. The sight gauge is used to indicate the level of fluid in the reservoir. Fluid level must be visible in the sight gauge when the hopper is in the down position.



C-1435 FIGURE 25

MAIN BROOM COMPARTMENT DOORS (figure 25)

The main broom compartment doors are located behind the front tires on both sides of the sweeper. The doors provide access to the main broom for service or inspection.



WARNING

Operate Only When Lids, Doors, And Access Panels Are Securely Closed.

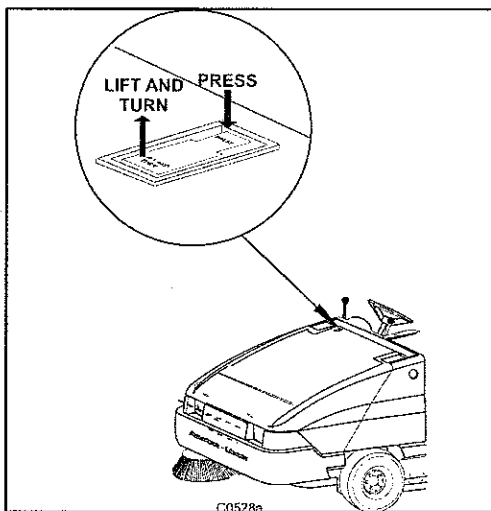
Open the right side door to remove or replace the main broom. The right side door is an integral part of the main broom drive system and must be closed for operation.

Open the left side broom door for inspection. Check the drive hub for banding and shrink wrap which have a tendency to get tangled in the broom driver.

To open the main broom door, reach inside the hole in the door and lift up on the latch handle.

The door latch will automatically engage when the door is closed.

SWEeper CONTROLS/INSTRUMENTS



C-0528A

FIGURE 26

HOPPER COVER LATCH (figure 26)

The hopper has two hinged covers for easy access to the hopper components may be needed for inspection or service.

To access the upper hopper cover (single latch at top)

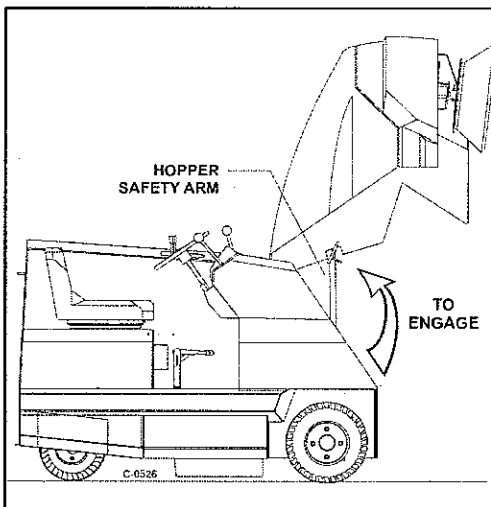
1. Press on the rear portion of the latch
2. Lift and turn the latch 90°

To access the lower hopper cover (two latches at bottom)

1. Press on the rear portion of each latch (one at a time)
2. Lift and rotate each latch 180°

To close hopper covers:

1. Lower covers carefully
2. Turn latches (in the opposite direction than when opening)
3. Press the latches down into the recess to lock



C-0526

FIGURE 27

HOPPER SAFETY ARM (figure 27)

The hopper safety arm is located near the right front wheel well. The safety arm will prevent the hopper from unexpectedly during service/maintenance. dropping



WARNING

The Hopper Could Drop Unexpectedly And Cause injury. Engage The Safety Arm Before Working Under Hopper.

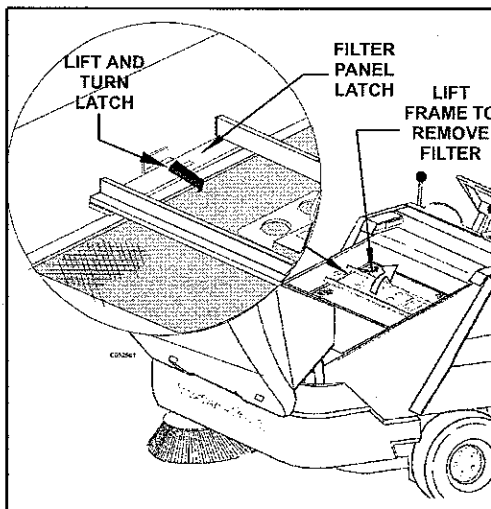


WARNING

For Safety Always Empty Hopper Before Servicing.

TO ENGAGE THE SAFETY ARM:

1. Empty hopper
2. Set the parking brake.
3. Raise the Hopper.
4. Lift safety arm to engage the slot on the hopper frame.
5. When work has been completed, replace the safety arm to the stowed position.



C-0529A-1

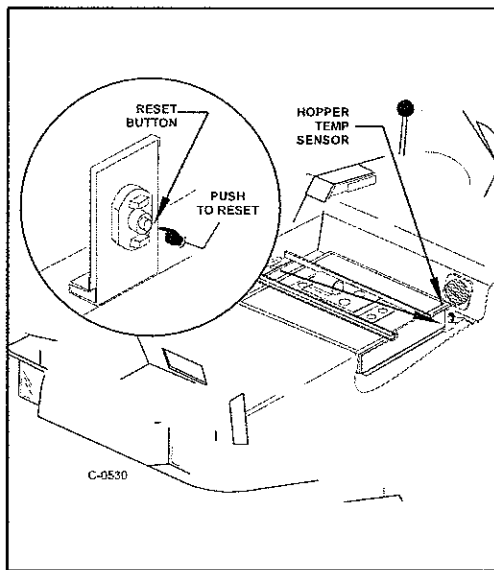
FIGURE 28

FILTER PANEL LATCH (figure 28)

The filter panel is located in the hopper filter compartment and will need to be removed periodically for cleaning or replacement. Removal of the filter panel requires no tools. The hopper cover must be opened to gain access to the filter compartment. The panel filter is held in place by a hinged frame and latch.

To remove the panel filter, lift and turn the handle and lift the hinged frame.

The panel filter can now be lifted out and cleaned or replaced (See Filter Cleaning instructions in this Manual). To install the replacement panel filter, lower the frame, turn, and lower the handle clockwise to lock the filter in place.



C-0530A FIGURE 29

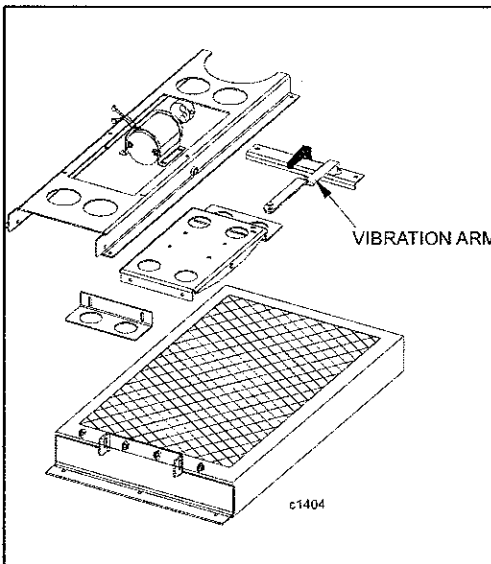
HOPPER TEMP SENSOR (OPTION) (figure 29)

The hopper temp sensor thermal switch can be reset, which is located in the hopper filter compartment near the vacuum fan intake.

The temp sensor switch monitors the hopper air temperature near the vac fan. When the temperature of the air moving through the hopper exceeds 140°F the temp switch trips which turns off the dust control fan and illuminates the hopper temp light on the warning bank.

When this occurs carefully investigate for a possible fire in the hopper.

To reset the temp sensor, press the reset button. The sensor will not manually reset until the temperature in the hopper has dropped below 133°F.



C-1404A FIGURE 30

VIBRATION ARM FOR LOWER FILTER(figure 30)

The vibrating arm is located on the clean side of the filter, attached to the shaker pivot assembly. The purpose of the vibrating arm is to move all dust that is shaken from the filter into the dumping area by vibrating a plate located directly below the filter. This is done by transmitting the vibration of the shaker frame through a gland nut with a bolt that is hammered by the vibrating arm.

For best results, the arm should be set up so that there is a bout 1/32" to 1/16" clearance between the bolt and the arm. This can be adjusted in many ways, by the positioning of the paddle on the shaker motor plate, adjustment of the lift and turn latch, or if these are all set properly and adjustment is still needed, you can bend the arm to get the proper adjustment.

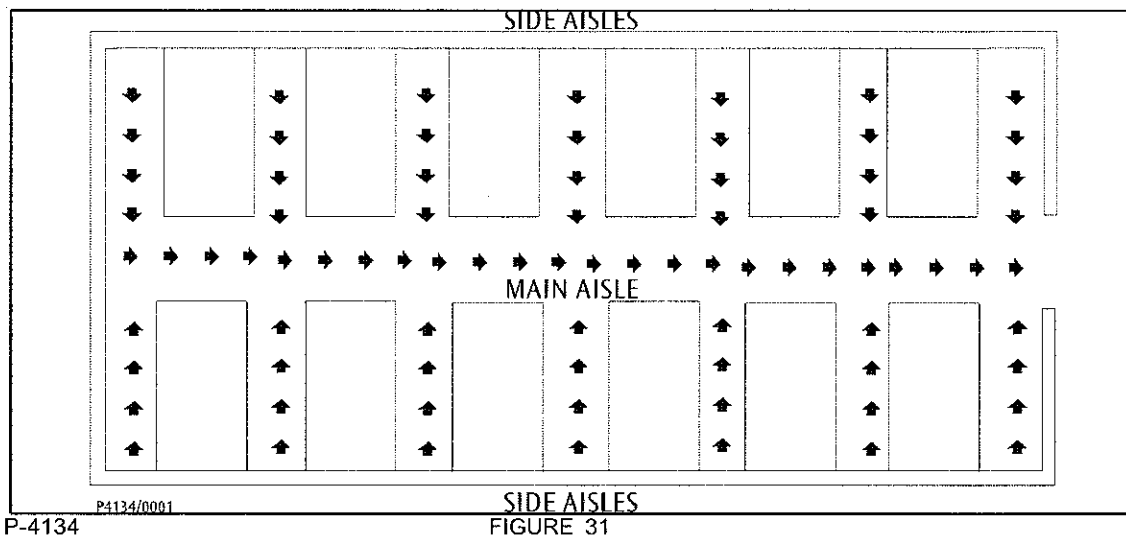
The arm and the gland nut are factory set, they should only need inspection and/or adjustment when the arm does not vibrate or hammer the bolt. When changing the filter, inspect or adjust the arm at that time.

LOW OIL SHUTDOWN

The machine is equipped with a protection circuit to shutdown the engine when the oil pressure drops approximately below 5 psi. The Engine Oil Pressure light on the warning bank will illuminate as an indicator to the operator.

Use the dipstick to check the oil level and add oil to the engine as needed until the oil is brought up to the correct level.

HELPFUL HINTS FOR SWEEPING



WARNING

Do Not Turn The Steering Wheel Sharply When The Machine Is In Motion. The Sweeper Is Very Responsive To Movement Of The Steering Wheel. Do Not Make Sudden Turns.

- Pick up large debris before sweeping with machine.
- Use the machine to sweep debris from narrow aisles into main aisle.
- After the machine has made a sweeping run. Push the filter shaker control button for 20 to 30 seconds, the filter shakers will unload accumulated dust from the filter media. The main broom and fan will turn off automatically during the shake cycle. The filter shakers will only work when the hopper is in the sweep position.
- Sweep debris from main aisle.
- Overlap of broom paths when sweeping. This will eliminate leaving dirty patches.
- Empty hopper when the sweeper leaves debris, while sweeping
- Sweep in straight paths. Do not bump posts. Do not scrape the sides of the machine.

NOTE

Replace Main Broom When Bristles Are Worn To 1 ¼ Inch Length. Replace Side Broom When Bristles Are Reduced To 3 Inch Length. To Order Replacement Brooms, See Parts List In This Manual.

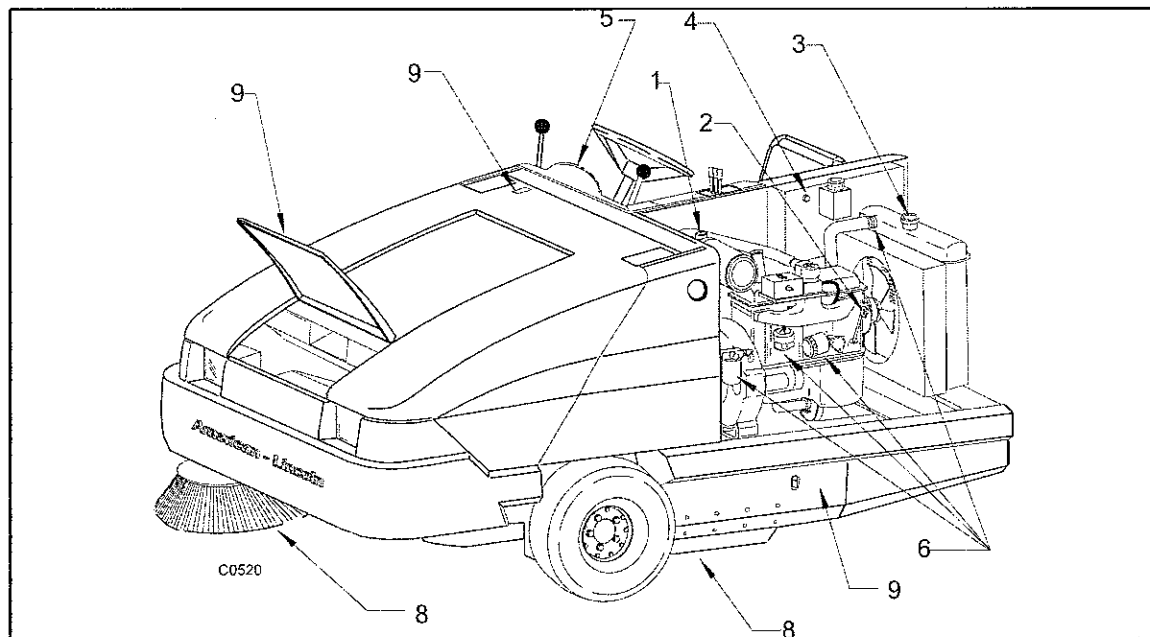
BEFORE STARTING

1. Set Parking Brake.
2. Make sure all controls are in the "Off" position.
3. Be sure accelerator and directional control pedal is in neutral.

PRE-START CHECK LIST

Before starting the engine, perform these pre-start checks.

1. Check engine air filter element indicator.
2. Check engine oil level.
3. Check radiator coolant level.
4. Check hydraulic fluid level.
5. Check fuel level.
6. Check all systems for leaks.
7. Check brakes and controls for proper operation.
8. Check broom patterns
9. Check to ensure that all covers, panels and access doors are securely closed.



C-0520

FIGURE 32

NOTE

When Machine Has Been Stored In Below Freezing Temperatures, Run Engine At The "1" (low) Speed Setting With Machine Standing Still For 5 To 10 Minutes To Warm Engine And Hydraulic Oil.

TO START GAS ENGINE

Use the choke in extremely cold temperatures, (under 32 F. or 0 C.),

1. Pull choke if needed.
2. Set the engine speed switch to the "1" (low) Speed setting.
3. Turn key to "START" position until engine starts, then release. (The key switch will return to the "ON" position.)
4. Push in choke after engine starts running (If used).

TO START PROPANE ENGINE

Perform these checks in addition to the Pre-Start check list.

1. Check connections for leaks
2. Open the LP storage tank valve.
3. Check the regulator. Momentarily press fuel primer on the regulator cover to bleed air out of the system.
4. Set the engine speed switch to the "IDLE" (low) Speed setting.
5. Turn key to "START" position until engine starts, then release. (The key switch will return to the "ON" position.)

TO START DIESEL ENGINE

When starting the diesel engine, it should be noted that under no circumstances should Ether or any other starting fluids be used in conjunction with the glow plugs. Do not use the glow plugs for more than 60 seconds at a time or damage to the plugs may result. The key switch must be placed in the "ON" position before using the glow plug switch.

OPERATING INSTRUCTIONS

1. Perform the Pre-Start checks found previously in this manual.
2. Turn the ignition switch to the "ON" position and place the engine speed switch to the high speed (2) position.
3. Push and hold the glow plug switch for approximately 30 seconds. Under cold starting conditions, the glow plug switch may be held longer but do not hold the switch for more than 60 seconds to prevent damage to the glow plugs.
4. Turn the key switch to the start position and hold until engine starts. If the engine does not start immediately, release the key switch after 15 seconds to prevent damage to the starter.
5. Release the glow plug switch when the engine starts.



WARNING

Do Not Turn The Steering Wheel Sharply When The Machine Is In Motion. The Sweeper Is Very Responsive To Movement Of The Steering Wheel. Do Not Make Sudden Turns.

TO DRIVE SWEEPER FOR TRANSPORT

1. Ensure the main broom lever and the side broom lever are in "UP" position with all other sweeping controls in the "OFF" position.
2. Release the parking brake.
3. Place the engine speed switch in the "1" or "2" position.
4. Push forward on the foot pedal to start the sweeper moving.
5. Vary your foot pressure on the pedal to obtain the desired speed.
6. To stop, allow the foot pedal to return to the centered position. (Pedal will return to neutral when pressure is released)



WARNING

Machines Can Ignite Flammable Materials And Vapors. Do Not Use With Or Near Flammable Items Such As: Gasoline, Grain Dust, Solvents And Thinners.

TO SWEEP WITH THE MACHINE

1. Move the broom control lever to the "ON" position.
2. Lower the side and main broom to the floor. (The main broom control may be placed in either the "FLOAT" or "SWEEP" position).
3. Press the Dust Control Switch to the "ON" position.
4. Push forward on directional control pedal to place machine in motion.
5. Vary foot pressure on the directional control pedal to obtain desired travel speed.
6. Read the "Helpful Hints for Sweeping" in this manual for tips on maximizing sweeping performance.



WARNING

Stop And Leave This Machine On A Level Surface. When You Stop The Machine, Put The Key Switch In The "OFF" Position And Engage The Parking Brake.

TO STOP SWEEPING

1. Allow directional control pedal to return to neutral (centered) position. (Pedal will automatically return to neutral when foot pressure is released.)
2. Depress the foot brake.
3. Press the Dust Control Switch to the "OFF" position..
4. Place the broom controls (Side and Main) in the "UP" position.
5. Move the Broom Control lever to the center "OFF" position.
6. Push engine speed switch to the "IDLE" position.
7. Set parking brake.

NOTE

To provide hydraulic power to the hopper controls, the broom control lever must be in the center "Neutral" Position

OPERATING INSTRUCTIONS

TO EMPTY DEBRIS HOPPER

1. Press the engine speed switch to the "1" (Normal) or "2" (High) position.
2. Engage parking brake.
3. Move the Hopper Dump door lever to the "CLOSE" Position until door is closed.
4. Move the hopper lift lever to the "RAISE" position until the hopper reaches the desired height.
5. Disengage Parking Brake.
6. Drive forward slowly with the hopper raised to clear refuse container before opening the hopper dump door.
7. Engage Parking Brake.
8. Push the hopper dump door lever forward to the "OPEN" position. This will allow debris in the hopper to fall out into the refuse container.
9. Move the hopper dump door lever to the "CLOSE" Position until door is closed.
10. Disengage Parking Brake.
11. Drive in reverse slowly to clear the refuse container.
12. Engage Parking Brake.
13. Move the hopper lift lever forward to the "LOWER" position and hold until hopper is seated in place.
14. Move the hopper dump door lever to the "OPEN" position until the dump door opens.



WARNING

Do Not Turn off the engine with the hopper in the lifted position.

PULSE AIR SYSTEM OPERATION- Option

The Pulse Air System is a filter and filter cleaning system that works continuously to maintain airflow through the filter. This is done by a blast of air being flushed backwards through a section of the filter on a regular basis.

The system operates by building up pressure in an air reservoir, when the given pressure is reached the air is then dumped through the filter to clean it. There are two valves working together to cause the air blast. A spring and the air pressure hold a large diaphragm valve on top of the reservoir closed as pressure builds up. A small air passage allows the pressure to the back side of the diaphragm, when the given pressure is reached a small solenoid valve (which is connected to the back of the side of the diaphragm) is opened, this lowers the pressure on the backside and allows the large port on the front of the diaphragm to open quickly to allow air to escape through the discharge jet. Then an electronic module which is connected to the system controls which jet fires next.

The pressure switch controls the trigger pressure. Anything that could or would prevent the system from reaching the trigger pressure would prevent the system from working. It is very important that the clean side of the filter remain clean. Once the system is contaminated it is very difficult to cleanse all the dirt from the system especially from inside the reservoir. When the system is shut off all the air is drained from the reservoir to prevent condensation from building up inside the reservoir.

NOTE

After Stopping The Engine, Perform These Post Operation Checks.

POST OPERATION CHECK LIST

1. Clean debris hopper.
2. Check sweeping brooms for wear or damage.
3. Check all flaps for wear, damage and adjustment.
4. Fill the fuel tank.
5. Check all systems for leaks.
6. Close the LP storage tank valve. (LP Powered machines only)



WARNING

The Gasoline Tank Fill Cap Is Located Behind The Drivers Seat, Do Not Mistake The Hydraulic Reservoir For The Gasoline Tank. Check items for proper operation. If service is required, please contact an authorized American-Lincoln distributor.

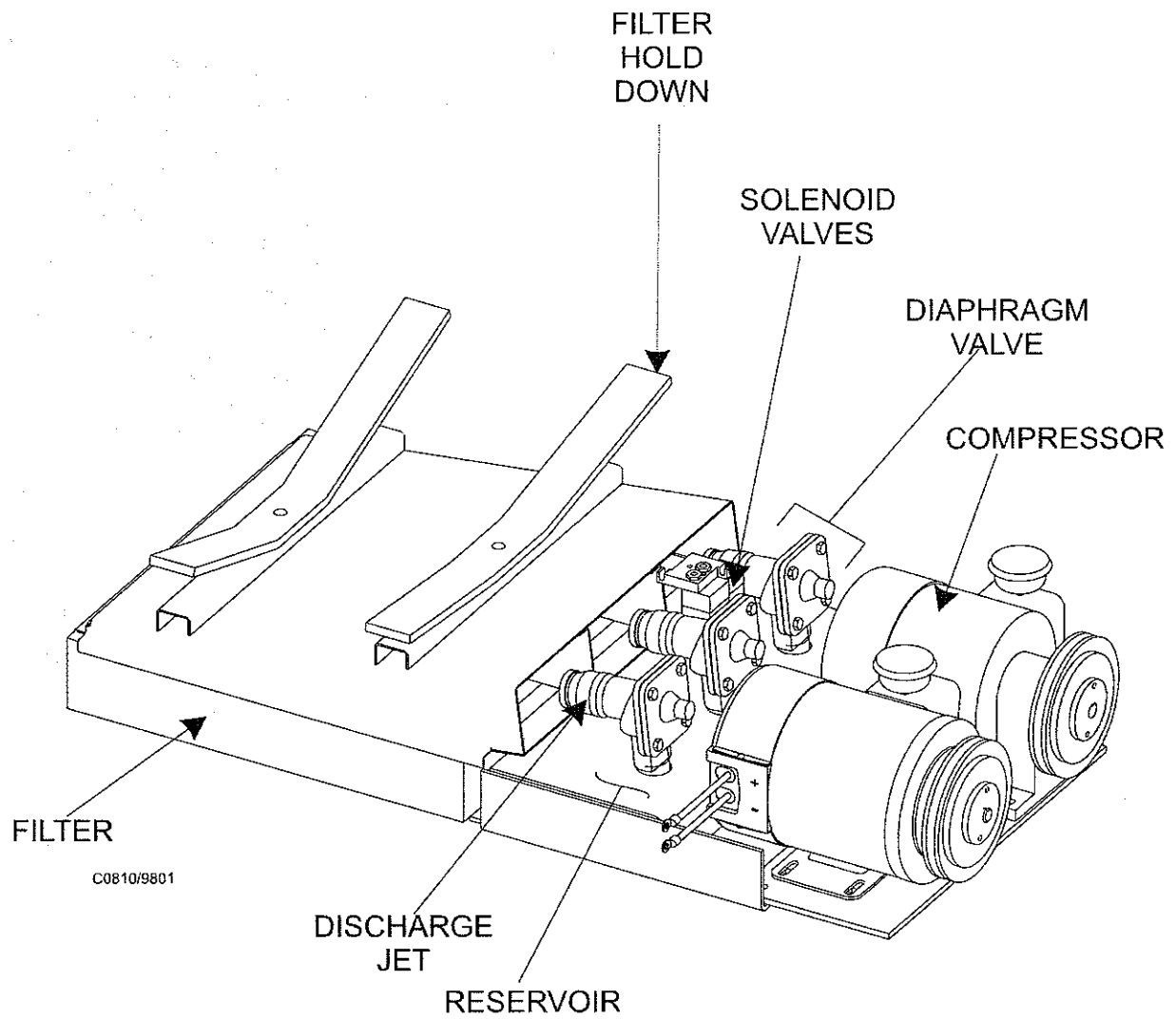
MAINTENANCE PULSE AIR SYSTEM - OPTION

The most important step to insure proper operation of the Pulse Air System is keeping the clean side of the filter clean. Dirt inside the compressor reservoir system can lead to air leaks. Air leaks will prevent the system from reaching the trigger pressure and then the system will stop working properly. (To check the trigger pressure install a pressure gauge in the port on top of the reservoir, or use "time" as a gauge, a new system can fire in as little as 10 seconds and should fire within 30 seconds.) Securing the filter properly is important, tighten the filter enough to hold it in place securely.

TROUBLESHOOTING THE PULSE AIR SYSTEM

PROBLEM	PROBABLE CAUSE	REMEDY
Pressure not building up	1. Plugger Compressor Inlets, dirty diaphragm valves, because of dirt build up on surface of diaphragm valves. 2. Dirty compressor due to relief valve stuck open.	1. Clean by blowing pressurized air in the discharge jet when the system is off (be careful, the air and dirt will blast out the other two jets). This is only for quick fixes, and runs the risk of dirt getting into the rest of the system. Remove the 4 bolts that hold the cap on the diaphragm and clean it (Do not lose the spring located between the cap and the diaphragm, also there is a roll pin that locates the cap). Clean the plastic seal on the diaphragm and check for damage on both the diaphragm and the sealing surface on the valve body. If the diaphragm needs replaced, order part number 0880-727. 2. Remove the compressor valve and clean it, solvents can be used in this valve. Reinstall valve.
System seems to function but one jet does not blast quickly	1. Sticking solenoid	1. Clean with a dry silicone lubricant, do not use oil on the solenoid plungers. If this does not work, replace solenoids.
System builds pressure but fails to fire	1. Pressure switch	1. Repair or replace
Air not being drawn into both cylinders of the compressor	1. Bad compressor	1. Repair or replace

PULSE AIR SYSTEM - OPTION



SERVICE PRECAUTIONS



WARNING

Do not attempt to Service this Machine until you have read and understand all Safety Warnings associated with the equipment you are working on.



WARNING

Electrical repairs must be done by authorized personnel only. Consult your American-Lincoln Authorized Service Person to do service procedures. Use only genuine American-Lincoln parts.



WARNING

Unexpected movement could cause injury. Always park on a level surface, turn key off, and engage parking brake before working on the machine.



WARNING

Maintenance and repairs must be done by authorized personnel only. Always empty the Hopper and Disconnect the Batteries before doing any maintenance. Keep all fasteners tight. Keep adjustments according to the specifications as shown in the Service Manual for this machine.



WARNING

Always wear eye protection and protective clothing when working near batteries. Do not put tools or other metal objects across the tops of the batteries. NO SMOKING.



WARNING

Hopper Could Fall And Cause Serious Injury. Always Engage Hopper Safety Arm Before Working Under Hopper.



WARNING

Moving Fan And Belt Could Cause Injury. Stay Clear Of Moving Parts.



WARNING

Pinch Points Could Cause Injury. Stay Clear Of Moving Parts.



WARNING

To Maintain The Stability Of This Sweeper In Normal Operation, the Over-Head Guard, Counterweights, rear Bumper Guard, Or Any Similar Equipment, Installed by The Manufacturer As Original Equipment, Should Never Be Removed. If It Becomes Necessary To Remove Such Equipment For Repair Or Maintenance. This Equipment Must Be Reinstalled Before The Sweeper Is Placed Back In Operation.



WARNING

The Wheels Are A Split Rim Type Which Could Explode Causing Personal Injury. To Prevent Injury Deflate Tires Before Removing From The Machine For Service.



WARNING

To Prevent Injury Or Engine Damage Never Remove The Radiator Cap Under Any Conditions While The Engine Is Running Or When It Is Hot. To Prevent Burns From Steam Or Scalding Hot Coolant Being Expelled From The Radiator, Use Extreme Care When Removing The Radiator Cap. Wait Until The Engine Has Cooled.

EVERY 8 HOURS or DAILY operation check and clean/adjust if necessary:

1. Inspect panel filter for damage and clean.
2. Check engine oil level
3. Check hydraulic fluid level
4. Check radiator cooling fins for blockage
5. Check all flaps for wear or damage
6. Check brooms for wear or damage, adjust as required
7. Check brake pedal and parking brake
8. Clean engine air filter dust cap and check filter
9. Check hydraulic oil filter
10. Check coolant level
11. Check LPG connections for odor.

EVERY 50 HOURS

12. Check tension on all belts
13. Check battery electrolyte level
14. Lubricate dump system
15. Check all hydraulic hoses for wear or cuts
16. Rotate main broom (end for end)
17. Clean or replace panel filters
18. Perform recommended engine maintenance (See engine manual)

EVERY 100 HOURS

19. Change crankcase oil.
20. Change engine oil filter.
21. Check fuel hose for leaks or deterioration.
22. Check radiator hoses and clamps.
23. Lubricate steering yoke pivot bearings.
24. Lubricate front wheel bearings.
25. Lubricate all moving joints.
26. Check brake pads for wear and adjustment.
27. Lubricate all 4 "DANHOUSER" bushings with NAPA #765-1363 (or equivalent) anti-seize lubricant.
The bushings are located on the steering, hopper lift, and dump door cylinders.
28. Perform recommended engine maintenance (See engine manual)

EVERY 250 HOURS

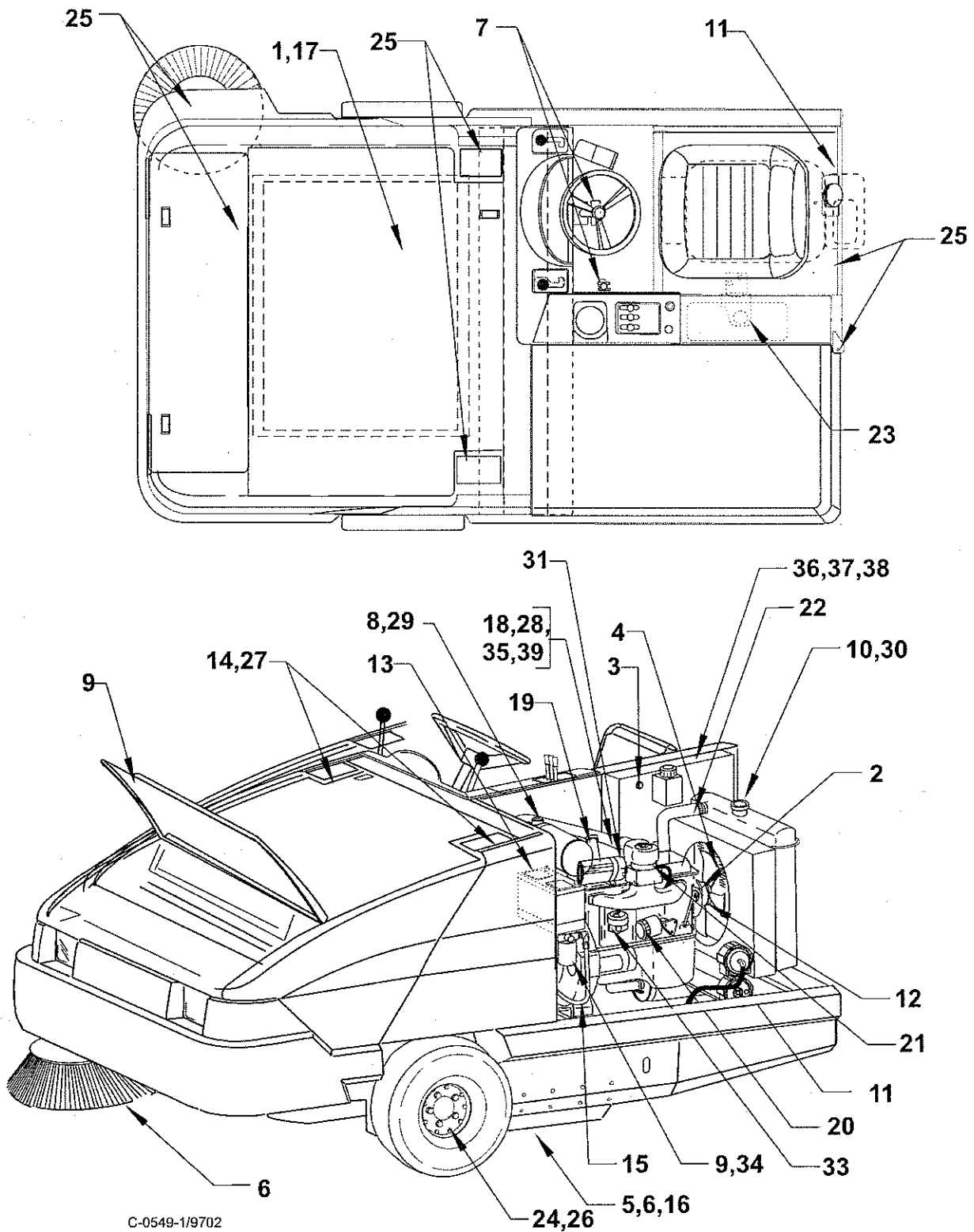
29. Replace engine air filter element
30. Flush radiator coolant system
31. Remove spark plugs - clean or replace
32. Clean and lubricate governor & choke linkage
33. Replace fuel filter
34. Replace hydraulic filter element
35. Perform recommended engine maintenance (See engine manual)

EVERY 500 HOURS

36. Clean hydraulic reservoir
37. Clean hydraulic intake strainer
38. Change hydraulic fluid
39. Perform recommended engine maintenance (See engine manual)

Refer all Maintenance and Service Requirements to Qualified Maintenance Personnel.

SERVICE CHART



SWEEPING SYSTEM SERVICE

MAIN BROOM

To prevent the broom from "setting" in one direction and to provide the maximum life of the broom it is recommended that the broom be turned end for end periodically.

TO CHECK THE MAIN BROOM SWEEP PATTERN

Check the main broom sweep pattern after changing the broom or when poor sweeping performance is encountered while sweeping.

1. While the machine is not moving, lower the main broom to the "SWEEP" position and let machine sweep in one spot for a short period of time.
2. Before moving machine, raise main broom lever to the "UP" position and move the sweeper forward enough to see the pattern left by the main broom bristles on the floor.
3. Check the width of the pattern on the floor to determine if the main broom requires adjustment.
 - A normal sweep pattern left on the floor will be between 1 and 2 inches wide.
 - A pattern that is more than 2 inches wide indicates the broom linkage needs to be adjusted "UP"
 - A pattern that is less than 1 inch wide indicates the broom linkage needs to be adjusted "DOWN"

TO ADJUST THE MAIN BROOM HEIGHT

When changing the sweep height adjustment it is recommended that the bolt be adjusted 1 turn at a time. After adjustment, recheck the sweep pattern to determine if further adjustment is necessary.

- Turn the adjustment knob counterclockwise to INCREASE the sweep pattern width.
- Turn the adjustment knob clockwise to DECREASE the sweep pattern width.

TO REPLACE THE MAIN BROOM

The Main Broom should be replaced when the bristles become worn to less than 2". The main broom is held in place by the right side broom door. This feature provides for easy removal and installation of the main broom without the need for special tools or equipment. Follow the instructions below for main broom removal & replacement.

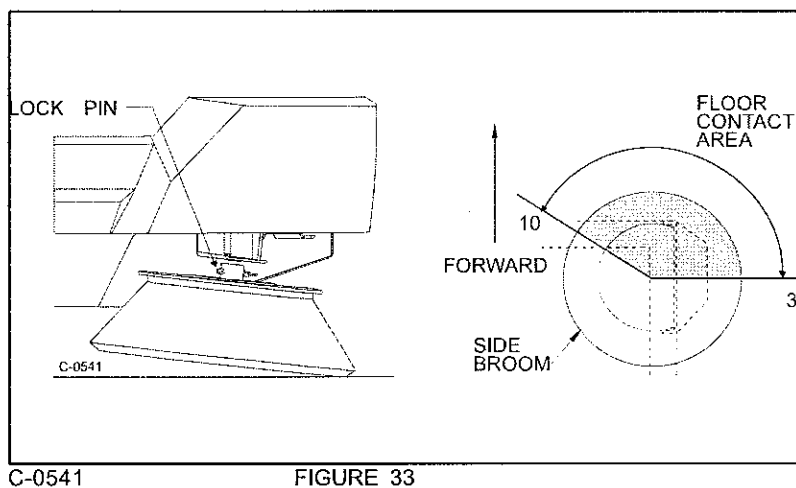
1. Park sweeper on a smooth level surface, engage parking brake, turn key switch "OFF", place the main broom lever in the "SWEEP" position.
2. Lift the door latch to open the right side broom door.
3. Swing the broom drive idler hub out to clear the main broom.
4. Remove the broom from the broom compartment.
5. Install the replacement broom. Pay special attention to the slots on the broom, it may be necessary to rotate the broom so the tabs on the drive hub align with the slots on the broom.
6. Swing the idler hub to engage the main broom and close the access door. Check the door latch for proper engagement when closed.
7. Check the Main Broom sweep pattern and adjust as necessary.

MAIN BROOM LEVEL ADJUSTMENT

The main broom level is factory set and should not need adjustment. If the level becomes out of adjustment and the broom bristle contact pattern is not an even 2" to 3" wide, the broom arm lift frame (pages 136, 137, part number 1) will need to be adjusted. The frame is supported by two plates located inside the broom doors. The carriage bolts (part number 2-00-05187) that secure the plates to the frame will need to be loosened. The frame can then be leveled and the bolts tightened.

SERVICE INSTRUCTIONS

SIDE BROOMS SERVICE



SIDE BROOM

The Side Broom sweeping angle is not adjustable however the height of the side brooms can be adjusted to compensate for wear as the broom becomes worn from use. Always check and adjust the sweep pattern after changing the side broom.

TO CHECK THE SIDE BROOM SWEEP PATTERN

1. Park the machine on a smooth level surface and turn the Side Broom Switch to the "ON" position.
2. Place the Side Broom Lever in the "DOWN" position.
3. Move the Brooms Control Lever to the "ON" position.
4. While staying in place allow the side broom to sweep for a short period of time. (Allow enough time for the side broom to leave a clean footprint on the floor).
5. Place the Side Broom Lever in the "UP" position.
6. Move the Brooms Control lever to the "OFF" position.
7. Back the sweeper away from the area where the Pattern was left. •
8. Turn Key Switch to the "OFF" position and engage parking brake.
9. Leave operator's compartment and check the pattern to determine the Floor Contact area .
10. Determine if adjustment to the side brooms height is necessary by examining the floor contact are broom should contact the floor as shown in fig. 34 above.

If the contact area on the floor does not match the diagram, do one of the following:

- Lower the broom adjustment to increase the size of the pattern
- Raise the broom adjustment to decrease the size of the pattern.

TO ADJUST THE SIDE BROOM HEIGHT

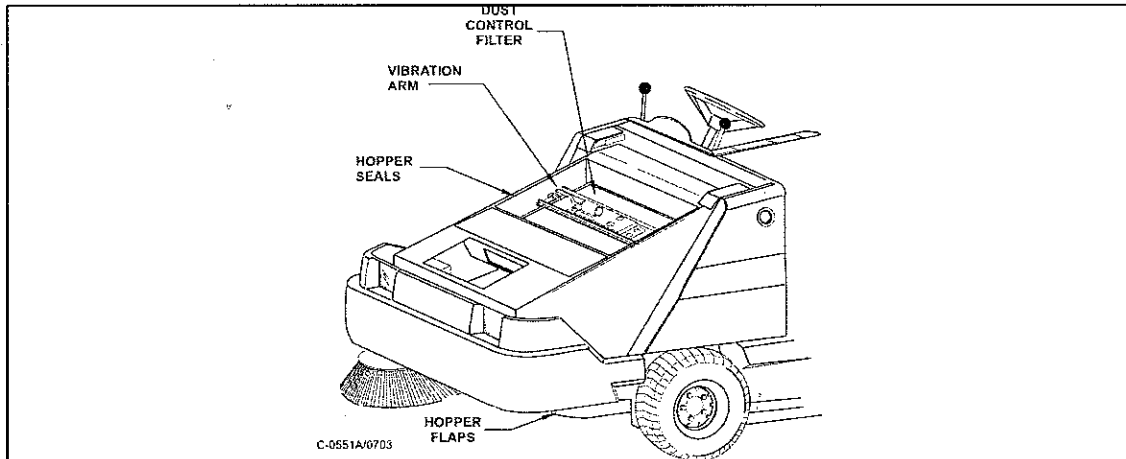
Turn the side broom adjustment knob to change the side broom sweep height. Turn the adjustment knob counterclockwise to INCREASE the sweep pattern width. Turn the adjustment knob clockwise to DECREASE the sweep pattern width. Recheck for proper sweep pattern after adjustment.

TO CHANGE THE SIDE BROOM

Change the side broom when the bristles become worn to less than 3 inches length.

1. Park Machine on a smooth level surface, turn key switch to "OFF" Position and engage Parking Brake.
2. Place the side broom lever in the "UP" Position.
3. Remove the lock pin that holds the broom flange to the motor shaft.
4. Disassemble the flange from the broom by removing the screws that hold the flange to the broom.
5. Assemble the flange to the replacement Broom and fasten using the hardware removed.
6. Install the replacement broom on the shaft and insert the lockpin.

HOPPER SERVICE



C-0551A

FIGURE 34

HOPPER

The hopper houses the debris compartment, the dust control filter and the vibrating arm. For maximum performance and service life, keep the hopper clean and inspect the seals and flaps daily.

Clean the hopper prior to parking the sweeper at the end of the day. A clean hopper will make inspecting the flaps and seals much easier and will prevent premature deterioration of hopper components. Do not leave the hopper full of debris while in storage or when parked for extended periods of time.

TO CLEAN HOPPER

Once the hopper has been emptied the insides of the hopper should be rinsed out with water.

TO CHECK HOPPER SEALS

The Hopper seals are important to positive dust control while sweeping. Damaged seals will reduce vacuum pressure at the broom. Inspect for cuts, tears and proper positioning of the seal material. Replace all seals that become damaged.

DUST FLAPS

The dust flaps are very important to sweeping and dust control and are susceptible to damage and should be inspected daily and maintained in good condition.

TO CHECK THE DUST FLAPS

The Dust Flaps are used on the Wheel Well, Broom Chamber and Broom Door. Inspect the Flaps daily and replace any flap that shows signs of wear or deterioration. All flaps should be replaced when worn or damaged to the point that they can no longer perform their normal function. The adjustable Flaps have slotted mounting holes to facilitate adjustment.

TO ADJUST THE DUST FLAPS

Adjust the flaps so there is a 1/8" to 1/16" Gap between the floor and the bottom edge of the flaps. The rear flap adjustment is 1/16" (16 cm.) above the floor.

1. Park Sweeper on a smooth level surface and engage the Parking Brake.
2. Loosen the Flap retaining screws and adjust the flap to clear the floor and leave a 1/16" to 1/8" Gap.
3. Tighten Flap retaining screws while holding flap in position.
4. Drive sweeper on a smooth surface and recheck the flaps for proper floor clearance.

SERVICE INSTRUCTIONS

HOPPER SERVICE-Cont. DUST CONTROL FILTER

The dust control filter should be checked daily for damage and cleaned if necessary. A damaged filter must be replaced to prevent damage to other dust control system components. Inspect the filter for tears in the filter media or excessive dirt lodged in the pleats. A tear in the filter media will allow dirt to pass through the filter and can be easily seen as a dirty patch on the top side on the filter. Cleaning of the filter is necessary when the filter shaker fails to adequately clean the pleats.

TO CHECK THE DUST CONTROL FILTER

1. Park the sweeper on a smooth level surface, Turn the key switch to the "OFF" position and engage the Parking Brake.
2. Raise the hopper lid for access to the filter compartment.
3. Turn the filter latch, lift the filter frame and remove the filter.
4. Inspect the panel filter for tears and clean or replace if necessary.
5. Reinstall the filter, lower the filter frame and engage the filter latch.
6. Close the hopper cover and lock the hopper cover latch.

TO CLEAN THE DUST CONTROL FILTER

Clean the dust control filter when the shaker fails to adequately clear the filter. The filter can be cleaned with compressed air not to exceed 100 psi.

To clean the filter with compressed air, apply the compressed air to the top side of the panel to flush out the lodged dirt from the filter pleats. Be careful to not damage the filter media while cleaning.

The filter can be cleaned with a solution of soap and water. If this cleaning method is used do not use the filter until it has completely dried.

TO CHANGE THE DUST CONTROL FILTER

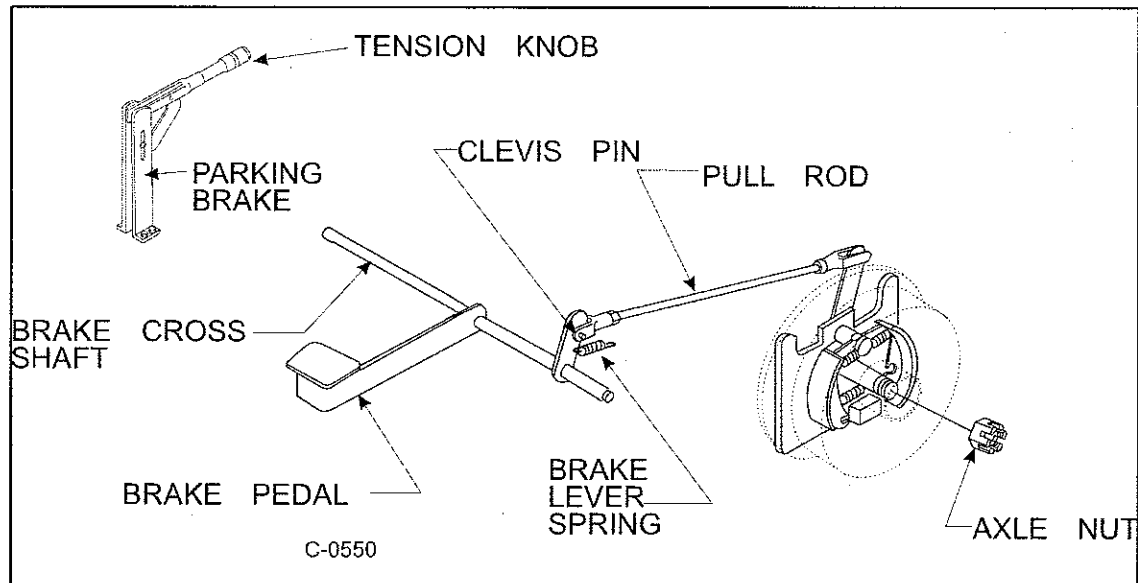
Change the filter panel when damage is evident.

1. Park the sweeper on a smooth level surface, Turn the key switch to the "OFF" position and engage the Parking Brake.
2. Open the hopper cover latch and raise the cover to gain access to the filter compartment.
3. Turn the latch on the hinged frame counterclockwise and lift the frame.
4. Remove the filter panel.
5. Install replacement filter, lower the hinged frame and engage the latch.
6. Lower the hopper cover and lock the cover latch.

TO CHECK THE VIBRATION ARM

1. Inspect the arm daily to assure it is located directly over the bolt.
2. Inspect the arm to assure there is between 1/32" to 1/16" clearance between the bolt and the arm.
3. Inspect the gland nut to assure that it moves up and down with some drag, this will assure no leakage. (Silicone on the nut may be necessary to prevent loosening while vibrating)

BRAKE SERVICE



C0550

FIGURE 35

BRAKES

The service brakes are located on the front wheels. They are operated by the brake pedal and the parking brake lever. Check the Brakes daily for proper operation and inspect the brake pads for wear every 100 hours of operation.

BRAKE PEDAL ADJUSTMENT

Perform this adjustment to ensure proper pedal height and linkage operation. The brakes are properly adjusted when the brakes hold the sweeper on an 8 degree ramp. The brakes need adjusted if the Pedal travels closer than 1 inch to the floor of the operator's compartment when the brakes are fully engaged.



WARNING

Hopper Could Fall And Cause Serious Injury. Always Engage Hopper Safety Arm Before Working Under Hopper.



WARNING

Always park on a level surface, chock tires and Observe Safety Procedures when adjusting the brakes

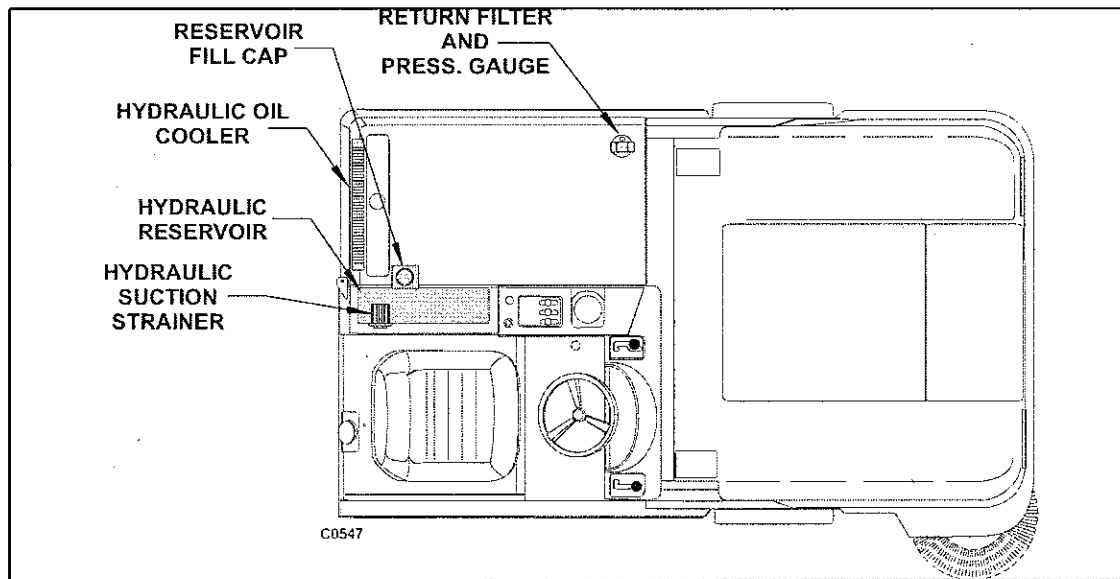
TO ADJUST THE BRAKES

When adjusting the brake clevises be sure to adjust both sides the same amount to prevent uneven braking between the two sides. Follow these steps to adjust the brakes.

1. Empty the debris hopper.
2. Raise the hopper and engage the safety arm.
3. Stop the engine, chock the tires.
4. Remove clevis pins from both sides of the brake cross shaft.
5. Thread the clevis out to decrease brake pedal height or in to increase pedal height.
6. Adjust the brakes so the brakes hold the machine on an 8 degree ramp and the pedal travels no closer than 1 inch from the floor.
7. Reinstall the clevis pins.
8. Start the engine, lift the hopper and lower the hopper safety arm.
9. Lower the hopper and stop the engine.
10. Remove the wheel chocks.

SERVICE INSTRUCTIONS

HYDRAULIC SYSTEM SERVICE



C-0547

FIGURE 36

HYDRAULIC SYSTEM

The brooms, hopper lift, hopper door, drive motor and vacuum fan are hydraulic powered. It is very important to prevent contamination in the hydraulic system. Contamination in the fluid will cause damage to all the hydraulic components. Follow the service chart and be very careful not to allow contaminants to enter the reservoir. Wipe the area surrounding the fill cap before opening.

HYDRAULIC OIL COOLER

The hydraulic oil cooler is located next to the radiator. The cooler can be accessed by opening the engine cover. The oil cooler core must be kept clear of debris and dust.

TO FILL THE HYDRAULIC RESERVOIR

Follow these instructions to add fluid to the reservoir as needed.

1. Open the engine cover.
2. Open the hydraulic reservoir breather filler cap.
3. Remove any debris that is in the breather filler cap screen
4. Fill the reservoir until the fluid is visible in the sight glass that is located on the side of the reservoir. Do not overfill the reservoir.
5. Close the hydraulic reservoir breather filler cap.
6. Close the engine cover.

TO CLEAN THE HYDRAULIC SYSTEM

To assure proper cleaning of the hydraulic system, follow and complete all steps below in order.

TO DRAIN THE HYDRAULIC RESERVOIR

Follow these instructions to drain the hydraulic reservoir.

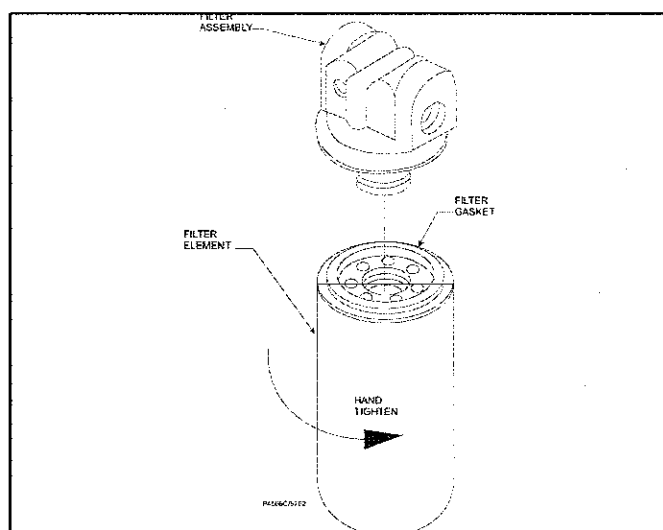
1. Set the parking brake.
2. Open the engine cover.
3. Place a container under the reservoir drain to catch the reservoir fluid.
4. Remove the drain plug. The reservoir fluid will drain.
5. Properly Dispose of used fluid. Never refill the reservoir with used fluid.

HYDRAULIC SYSTEM SERVICE-Cont.

TO CLEAN THE HYDRAULIC SUCTION STRAINER

Remove the hydraulic suction strainer after draining the hydraulic reservoir. The suction strainer is part of the filter assembly located on the side of the hydraulic reservoir. It can be removed from the reservoir for replace 1. Lift the seat deck to gain access to the suction strainer

2. Remove the hose connected to the suction strainer.
3. Turn the suction strainer counter clockwise to remove from the reservoir.
4. Use a compressed air line on the inside of the strainer to blow impurities out of the filter media. If a compressed air line is unavailable, use new FORD type "F" Automotive Transmission Fluid to flush the filter media.
5. Flush the interior of the hydraulic reservoir with clean fluid.
6. Apply sealant to threads of strainer and install.
7. Rotate strainer clockwise into the reservoir. Stop rotation when hand tight.
8. Install the hydraulic hose removed in step 2.
8. Apply sealant to threads of drain plug and install into the hydraulic tank and tighten.
9. Open the breather filler cap.
10. Fill reservoir with new FORD type "F" automotive transmission fluid. Initially fill the reservoir with 7 gallons of fluid. Run the machine a short period of time to allow air to escape from the system then recheck the fluid level in the sight gauge and add fluid as necessary.
11. Close the breather filler cap.
12. Close the seat deck and engine cover.



P4506C

FIGURE 37

TO REPLACE THE RETURN FILTER ELEMENT

Replace the return filter element after approximately 250 hours of machine run time.

1. Unscrew the filter element from the filter assembly and discard.
2. Moisten the filter gasket of a new filter element (Part # 8-24-04118) with hydraulic fluid.
3. Put filter element on the threaded nipple of the filter assembly.
4. Turn the filter clockwise until it is hand tight.
5. Wipe clean any hydraulic reservoir fluid spills.

ENGINE AIR INTAKE SERVICE

Monitor the air filter indicator daily. The importance of maintaining the air filter cannot be overemphasized. Dirt ingested through improperly installed or serviced, or an inadequate air filter element will wear out the engine more than long hours of operation. Even a small amount of dirt will wear out a set of piston rings after a few hours of operation. Operating with a clogged air filter element also causes the fuel mixture to be richer, which can lead to formation of harmful sludge deposits in the engine. Always cover the air intake when the air filter is removed for servicing. Do not neglect servicing the air filter. Use only approved replacement parts from a American-Lincoln distributor. Keep all other air intake components such as hoses and clamps secure and in good condition to prevent ingestion of unfiltered air.



CAUTION

Over Maintenance Can Cause More Damage Than Good. Removing The Air Filter Element More Often Than Is Needed May Allow Contaminants To Enter The Engine Unnecessarily.

SERVICE INSTRUCTIONS

ENGINE AIR INTAKE SERVICE-Cont. AIR FILTER

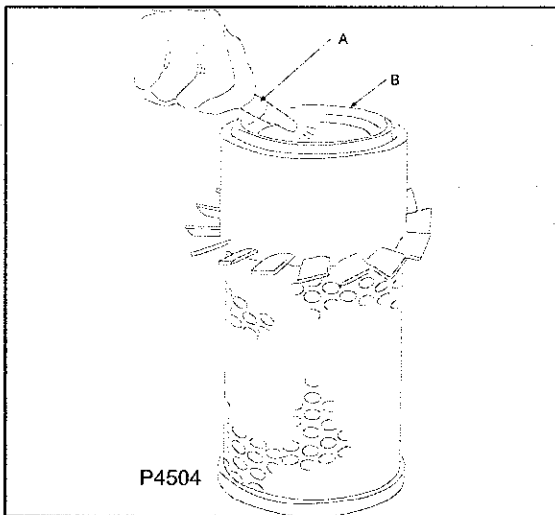
Service the engine air filter only when the Yellow Filter Service Indicator reaches the red band at the top of the indicator. The yellow indicator will stay at the red band when the engine is off. Reset the indicator by depressing the black button at the end of the indicator.

The engine air filter housing includes a dust cap and a dry cartridge type air filter element. The dust cap must be emptied of dirt daily. The filter element must be replaced when damaged or after its third cleaning.

TO REMOVE THE AIR FILTER ELEMENT

Remove the air filter element for cleaning or replacement when the filter service indicator reaches the red band. Be sure to reset the indicator after servicing the filter.

1. Stop the engine and engage the machine parking brake.
2. Locate the engine cover latch and lift "UP" to open the engine cover.
3. Unscrew the clamp ring on the filter.
4. Remove the dust cap.
5. Empty the dust cap.
6. Remove the filter wing nut.
7. Gently pull the filter element out of the filter housing.



P-4504 FIGURE 38

TO CLEAN THE AIR FILTER ELEMENT

1. Clean the interior of the air cleaner housing with a damp cloth.
2. Clean the element housing sealing surfaces.
3. Using an air hose, direct dry clean air (max. 30 PSI) up and down the pleats on the inside of the filter. Do not rap, tap, or pound dust out of the element.
4. Inspect the air filter element for damage by placing a bright light inside. The slightest rupture requires replacement of the filter.
5. Clean and inspect the ends of the element. They should be unbroken and flexible. Remember, the element must be replaced after it has been cleaned three times.

TO INSTALL THE AIR FILTER ELEMENT

1. Install the new or cleaned filter element so that fins on the element are at the intake end of the air cleaner. Use care so the fins are not damaged.
2. Tighten the wing nut attaching the element.
3. Install the dust cap with arrows pointing up.
4. Tighten the clamp ring to hold it in place.
5. Check all intake hose connections for leaks or abrasions.
6. Reset the filter monitor.
7. Close the engine cover and check to be sure the cover latch is securely locked.

ENGINE COOLING SYSTEM SERVICE

HOSES

Check all hoses and connections for leaks. Replace any of the hoses are cracked, frayed, or feel spongy.

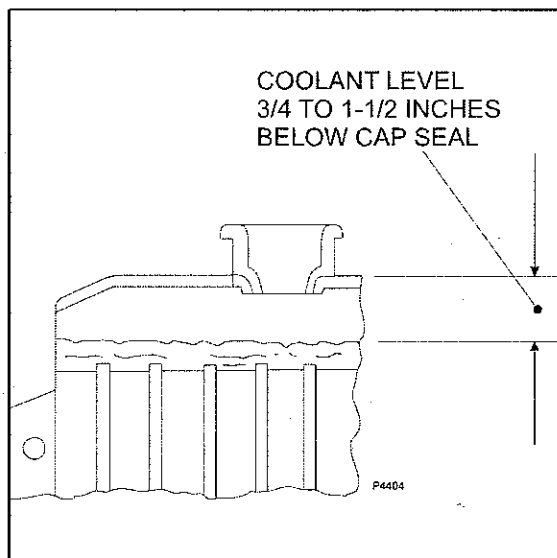
RADIATOR

Inspect the exterior of the radiator daily for obstructions. Remove all bugs, dirt, or foreign material with a soft brush or cloth. Use care to avoid damaging the fins. If available, use compressed air or a stream of water in the opposite direction of normal air flow.



WARNING

Never remove the radiator cap under any conditions while the engine is operating. Failure to follow these instructions could result in damage to the cooling system or engine and/or personal injury. To avoid having scalding hot coolant or steam blow out of the radiator, use extreme care when removing the cap from a hot radiator. If possible, wait until the engine has cooled. Wrap a thick cloth around the radiator cap and turn it slowly to the first stop. Step back while pressure is released from the cooling system. When you are sure all pressure has been released, with a cloth, press down on the cap, turn and remove it.



P-4404

FIGURE 39

COOLANT LEVEL

Check the coolant level in the radiator daily and only when the engine is cool. The coolant level should be maintained to approximately 3/4 inch (1.9 cm) below the filler neck seat on the radiator when the coolant is cold. Whenever coolant level checks are made, check the condition of the radiator cap rubber seal. Make sure it is clean and free of any dirt particles. Rinse off with clean water if necessary. When replacing the cap back on the radiator, make sure the radiator filler neck is clean and void of debris.

DRIVE BELTS

The drive belts should be properly adjusted at all times. A loose drive belt causes improper alternator, fan and water pump operation, and overheating. Overtightening the belt may result in excessive wear on the alternator and water pump bearings, as well as premature wear on the belt itself. It is recommended that proper belt tension be maintained and checked periodically.

BATTERY

The battery is located in the engine compartment. Keep the top of the battery clean and dry. Keep the terminals and connectors clean. To clean the tops of batteries, use a damp cloth with a weak solution of ammonia or bicarbonate of soda solution. To clean the terminals and connectors, use a terminal and connector cleaning tool.

ATTENTION

NEVER allow the soda solution to enter the cells. This will permanently discharge the battery.

LP SAFETY PRECAUTIONS



WARNING

Keep cigarettes, sparks, and open flame away when working on LP equipment. When inspecting for gas leaks or when LP tanks are present.



WARNING

Check all components for proper operation. Replace LP components when needed. Never by-pass defective safety components.



WARNING

Check routing of all LP hoses. Keep them away from sharp edges, exhaust manifolds, or other hot surfaces. Check for signs of abrasion or deterioration.



WARNING

Check for gas odor before and during starting operations.. If gas odor is noticed, stop and check for leaks or component malfunction.



WARNING

Make sure LP tank is free of dents or gouges.



WARNING

Make sure service coupling is clean and free of damage. Make sure service coupling of tank matches machine service coupling.



WARNING

Keep the engine properly tuned.



WARNING

Make sure the LP tank matches the fuel system.



WARNING

Make sure the LP tank is securely mounted on the machine with the retainer bracket clamping the tank and with the locating pin in position.



WARNING

Park the machine in a shaded, cool area when not in use.



WARNING

Keep the LP tank service valve closed when the tank is not in use.



WARNING

Never overfill the LP tank. Fill the LP tank to the recommended weight stamped on the tank.



WARNING

Use care in handling LP tanks. Never drop or drag them.



WARNING

Always store and transport LP fuel tanks with the safety relief valve in the "UP" position.



WARNING

Avoid contact with the LP fuel to avoid frostbite.



WARNING

When the machine is to stand unused for a period of time (overnight), park the machine in a designated area. Shut off the service valve at the tank and operate the engine until the remaining fuel is consumed. Turn off the ignition switch.

LP GAS COMPONENTS

LP GAS SYSTEM

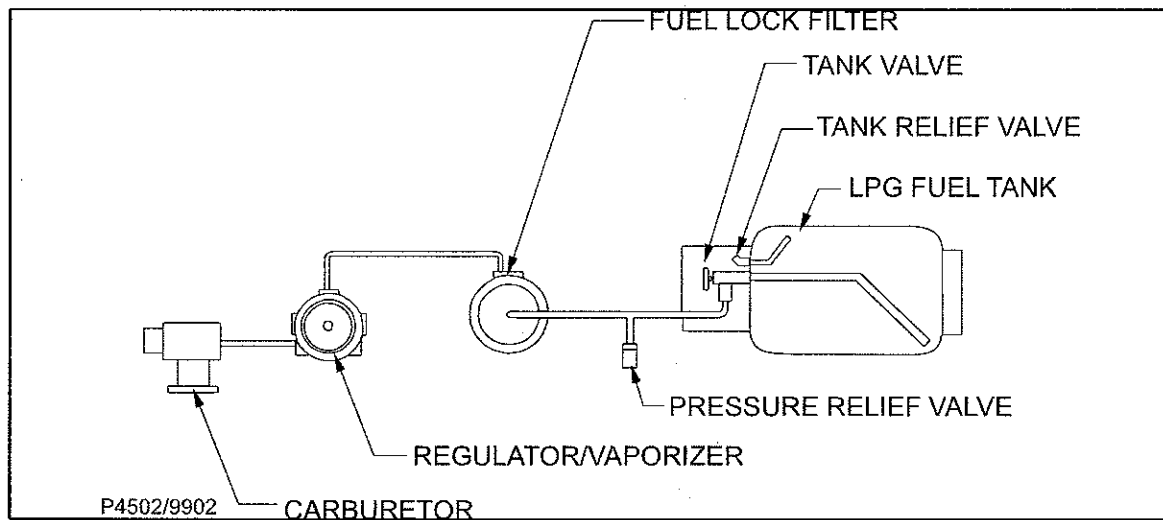
The propane powered Model MPV60 fuel system has been modified to operate on LP vapor fuel instead of gas.

The LP fuel system consists of several components not found in a regular gasoline system. The LP fuel system also contains the associated mounting hardware and plumbing for the LP components. The major LP components are as follows:

- An LP carburetor
- A combination water heated vaporizer and regulator
- A combination LP fuel line filter and lock off valve
- An LP fuel tank, fittings, and relief valves

These components are factory set. Attempts at adjusting these components should only be made by authorized service personnel.

P-4502



LP LIQUID WITHDRAWAL SYSTEM

The liquid LP fuel flows from the LP tank under its own pressure to the pressure relief valve. This valve is normally closed, which prevents LP fuel from escaping into the atmosphere. This LP gas is then piped to the LP fuel filter lock. The fuel filter lock removes unwanted tank scale and deposits from the LP gas. The vaporizer converts the liquid LP fuel into a gaseous LP fuel. This gaseous LP fuel is sent to the primary regulator. The primary regulator reduces the pressure of the LP fuel tank and makes the flow more constant. The secondary regulator reduces LP gas pressure to the level required by the carburetor. From the secondary regulator, the LP fuel is piped to the carburetor where it is finally metered into the air flow which is sent to the combustion chamber.

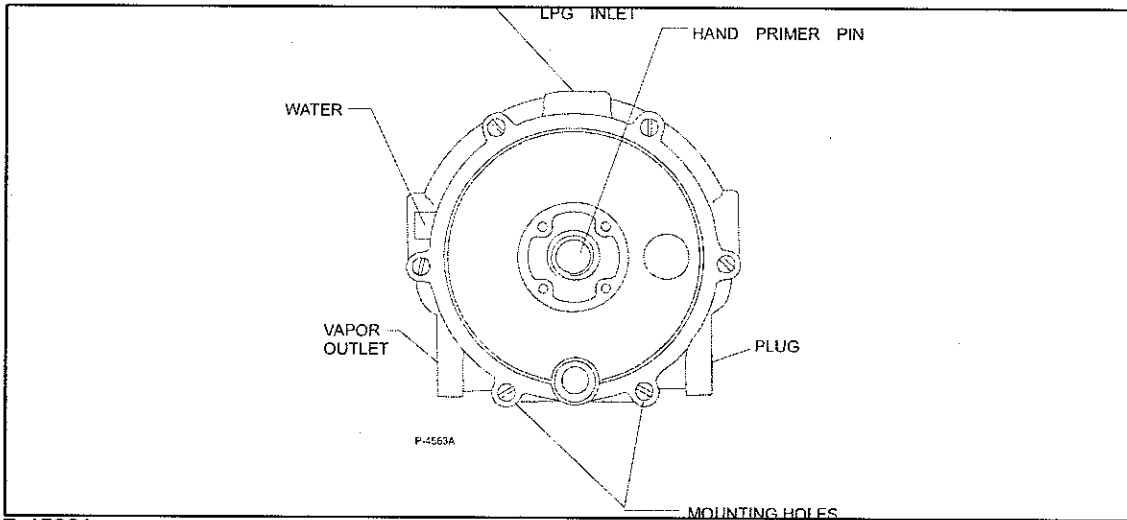
LP GAS COMPONENTS

LP CHECKLIST

This checklist can be performed quickly and should be done before every use. Be sure to make all necessary checks as listed on the Maintenance Chart as discussed earlier.

1. Check connections for leaks.
2. Open the LP storage tank valve.
3. Check the regulator. Momentarily press the fuel primer on the regulator cover to bleed air out of the system.
4. Start the machine's engine.

LP GAS VAPORIZER-REGULATOR QUICK CHECK



P-4563A

FIGURE 40

1. Turn the ignition switch on.
2. Open the radiator cap.
3. Check the coolant for bubbles. If bubbles are present, the vaporizer may have a leaking gasket or developed a pinhole leak allowing the LP fuel to enter the cooling system.

LP FUEL TANKS

Standard D.O.T. LP fuel tank sizes have 14, 20, 33.5, and 43.5 pounds capacities. The liquid volume permitted in these containers is less than the total volume of the cylinder. This provides for expansion of the LP fuel should be temperature increase above the normal amounts. Excessive heat may cause the fuel to expand too much causing the safety relief valve to vent some LP fuel, relieving internal tank pressure.

Each tank is marked showing the type of construction (liquid or vapor), the manufacturer, the date of manufacture, the capacity, the weight, and the date of re-qualification. D.O.T. fuel tanks must be re-qualified (checked) periodically. This re-qualification must be recorded and maintained for the life of the container.

LP fuel tanks are equipped with the following approved valves and fittings:

Safety Relief Valve - This is a spring loaded valve that relieves excessive pressures which may develop in the tank due to unusual conditions.

Liquid Service Valve - Liquid is withdrawn from the tank through this valve. The LP tank may be filled through this valve if the tank is not equipped with a filler valve.

Excessive Flow Valve - This valve is part of the Liquid Service Valve. It is mounted inside the tank and prevents LP fuel from leaving the LP tank in the event of accidental breakage of external fittings or hoses. It permits flow in either direction but stops outward flow if that flow becomes excessive.

Filler Valve - This valve is optional. If this valve is not present, the tank is filled through the service valve.

Liquid Level Gauge - This gauge is optional.

USE AND CARE OF LP TANKS

If an LP tank is damaged or leaking, it should be immediately removed to a designated safe area and the proper personnel should be notified. Do not attempt to make repairs to the cylinder regardless of its conditions. Repairs must be made by qualified personnel.

The care of an LP tank receives has a direct bearing on how long the tank can be used safely. LP tanks must not be dropped, dragged, or slid across any surface. To move the LP tank, use a hand truck or roll the tank on its foot ring while it is being held in a position slightly off the vertical.

CHANGING LP TANKS

Refueling machines with LP tanks is an important process. Refueling is accomplished by replacing the empty LP tank with a full one.

The tank changing operation presents an opportunity for the machine operator to carefully inspect the tank, tank fittings, the fuel lines and fuel line fittings. If abnormal wear is detected, the operator should report these findings to the appropriate personnel for immediate action.

TO BEGIN CHANGING THE LP TANK

- Park the machine in a designated safe area and set the parking brake.
- Close the tank valve.
- Remove the quick-disconnect coupling from the tank valve.
- Inspect the machine's fuel lines and the quick disconnect coupling for damage or abnormal wear.
- Remove the empty tank from the holding device.
- Inspect the tank and tank fittings for damage or abnormal wear. Handle the tank carefully. It must not be dropped or mishandled.
- Store the LP tank in a designated safe area.
- Select a filled LP tank and observe for damage or leaks.
- Carefully install the filled tank in the machine so that the tank centering pin enters the aligning hole in the tank collar. This assures that the tank is positioned properly and allows for proper operation of the safety relief valve, liquid level gauge, and service valves.
- Fasten the tank retaining bracket so that the tank is locked into position.
- Reconnect the fuel line to the tank servicing coupling.
- Open the service valve slowly and check for leaks. If a leak is found, close the valve immediately and notify the appropriate personnel.
- If no leaks are detected, the engine is ready to start. Do not start the engine unless the operator is in position with the directional control pedal in the neutral position.

STORAGE OF LP FUEL TANKS

Whether the storage is inside or outside, the LP tanks should not be in the vicinity of combustible materials or high temperature sources such as ovens or furnaces. This may cause the heat to raise the pressure of the fuel to a point where the safety relief valves would begin operation. Care should be taken to ensure that the cylinders are stored in such a manner that if the safety relief valves are triggered, the vapor will be relieved rather than any liquid.

Valves on empty tanks must be closed during storage and transportation.

Similar precautions should be taken in storing machines fitted with LP fuel tanks. They may be stored or serviced inside buildings provided there are no leaks in the fuel system and the tanks have not been overfilled. If machines are being repaired inside a building, the shutoff valve on the tanks must be closed except when the engine must be on during servicing.

TORQUE REQUIREMENTS

STANDARD METRIC TORQUE VALUES

When tightening torques are not specified, tighten the bolts and nuts according to the table below.

GRADE		No-Grade or 4T			7T			9T		
		SS41, S20C			S43C, S48C			SCR435, SCM435		
Nom. Dia.	Unit	N.m	kgf.m	ft-lbs	N.m	kgf.m	ft-lbs	N.m	kgf.m	ft-lbs
M6 (6mm, 0.24 in.)		7.85	0.80	5.79	9.81	1.00	7.23	12.26	1.25	9.04
		to	to	to	to	to	to	to	to	to
		9.32	0.95	6.87	11.28	1.15	8.32	14.22	1.45	10.49
M8 8mm, 0.31 in.)		17.7	1.8	13.0	23.5	2.4	17.4	29.4	3.9	21.7
		to	to	to	to	to	to	to	to	to
		20.6	2.1	15.2	27.5	2.8	20.3	34.3	3.5	25.3
M10 (10mm, 0.39 in.)		39.2	4.0	28.9	48.1	4.9	35.4	60.8	6.2	44.8
		to	to	to	to	to	to	to	to	to
		45.1	4.6	33.3	55.9	5.7	41.2	70.6	7.2	52.1
M12 (12mm, 0.47 in.)		62.8	6.4	46.3	77.5	7.9	57.1	103.0	10.5	75.9
		to	to	to	to	to	to	to	to	to
		72.6	7.4	53.5	90.2	9.2	66.5	117.7	12.0	86.8

ENGINE TORQUE VALUES

Screws, bolts and nuts must be tightened to the specified torque using a torque wrench. Several screws, bolts, and nuts such as those used on the cylinder head must be tightened in proper sequence and at the proper torque.

ITEM	Size & Pitch	N.m	kgf.m	ft-lbs
*Head Cover Cap Nuts	M6 x 1.0	3.9 to 5.9	0.4 to 0.6	2.9 to 4.3
*Head Bolts	M8 x 1.25	37.2 to 42.1	3.8 to 4.3	28.9 to 32.5
*Bearing Case Bolts 1	M6 x 1.0	12.7 to 15.7	1.3 to 1.6	9.4 to 11.6
*Bearing Case Bolts 2	M7 x 1.0	26.5 to 30.4	2.7 to 3.1	19.6 to 22.5
*Flywheel Bolts	M10 x 1.25	53.9 to 58.8	5.5 to 6.0	39.8 to 43.4
*Connecting Rod Bolts	M6 x 0.75	26.5 to 30.4	2.7 to 3.1	10.8 to 13.7
*Rocker Arm Bracket Bolts	M6 x 1.0	9.81 to 11.28	1.00 to 1.15	7.23 to 8.32
*Idle Gear Shaft Bolts	M6 x 1.0	9.81 to 11.28	1.00 to 1.15	7.23 to 8.32
Spark Plugs	M14 x 1.25	19.6 to 24.5	2.0 to 2.5	14.5 to 18.1
Drain Plugs	M12 x 1.25	32.4 to 37.3	3.3 to 3.8	23.9 to 27.5
Oil Switch Taper Bolt	PT 1/8	14.7 to 19.6	1.5 to 2.0	10.8 to 14.5
*Crankshaft Bolt	M12 x 1.5	98.1 to 107.9	10.0 to 11.0	72.3 to 79.6

For "*" marked bolts and nuts in the table, apply engine oil to their threads and seats before tightening.

Screw and bolt material grades are shown by numbers punched on the screw and bolt heads.

C-2005

HYDRAULIC TORQUE REQUIREMENTS

HYDRAULIC TORQUE REQUIREMENTS

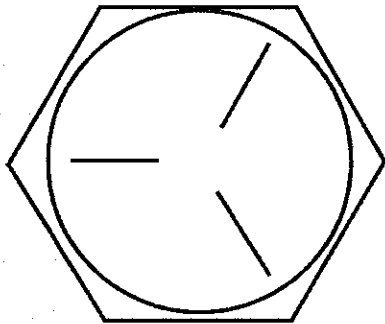
Refer to the following chart for torque values on all hydraulic hoses and fittings.

Nominal SAE Dash Size	O-Ring Face Seal End		SAE O-Ring Boss End	
	Thread Size Inch	Swivel Nut Torque	Thread Size Inch	Str. Fitting or Locknut Torque
		LB-FT		LB-FT
-3	*	*	3/8-24	8-10
-4	9/16-18	10-12	7-16-20	14-16
-5	*	*	1/2-20	18-20
-6	11/16-16	18-20	9/16-18	24-25
-8	13/16-16	32-35	3/4-16	50-60
-10	1-14	46-50	7/8-14	72-80
-12	1 3/16-12	65-70	1 1/16-12	125-135
-14	1 3/16-12	65-70	1 3/16-12	160-180
-16	1 7/16-12	92-100	1 5/16-12	200-220
-20	1 11/16-12	125-140	1 5/8-12	210-280
-24	2-12	150-165	1 7/8-12	270-360
* O-Ring face seal type end not defined for this tube size.				
NOTE				
Parts must be lightly oiled with hydraulic fluid.				

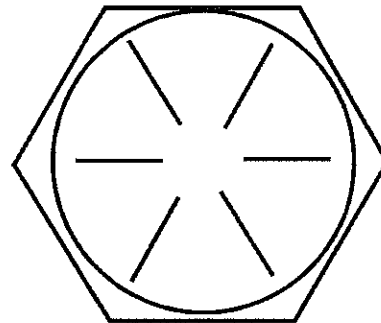
C-2002

STANDARD HARDWARE & TORQUE REQUIREMENTS

BOLT IDENTIFICATION



SAE - Grade 5



SAE - Grade 8

Screw Size	Grade 5 Plated		Grade 8 Plated		410H Stainless		Brass	Type F & T & BT		Type B, AB
	C	F	C	F	C	F		C	F	
*6	14	15	-	-	18	20	5	20	23	21
*8	27	28	-	-	33	35	9	37	41	34
*10	39	43	-	-	47	54	13	49	64	49
*1/4	86	108	130	151	114	132	32	120	156	120
5/16	15	17	22	24	19	22	6	-	-	-
3/8	28	31	40	44	34	39	10	-	-	-
7/16	44	49	63	70	55	62	16	-	-	-
1/2	68	76	95	108	85	95	-	-	-	-
9/16	98	110	138	155	-	-	-	-	-	-
5/8	135	153	191	216	-	-	-	-	-	-
3/4	239	267	338	378	-	-	-	-	-	-
7/8	387	-	545	-	-	-	-	-	-	-
1	579	-	818	-	-	-	-	-	-	-
C = Coarse Thread F = Fine Thread * = Torque values for #6 through 1/4 are lb./in. All others are lb./ft.										
NOTE Decrease the torque by 20% when using thread lubricant The torque tolerance is $\pm$ on torque values.										+

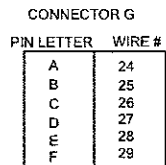
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DECIMAL METRIC CONVERSION TABLE

FRACTION	DECIMAL	MILLIMETER	FRACTION	DECIMAL	MILLIMETER
$\frac{1}{64}$	0.015625	0.3969	$\frac{33}{64}$	0.515625	13.0969
$\frac{1}{32}$	0.03125	0.7938	$\frac{17}{32}$	0.53125	13.4938
$\frac{3}{64}$	0.046875	1.1906	$\frac{35}{64}$	0.546875	13.8906
$\frac{1}{16}$	0.0625	1.5875	$\frac{9}{16}$	0.5625	14.2875
$\frac{5}{64}$	0.078125	1.9844	$\frac{37}{64}$	0.578125	14.6844
$\frac{3}{32}$	0.09375	2.3813	$\frac{19}{32}$	0.59375	15.0813
$\frac{7}{64}$	0.109375	2.7781	$\frac{39}{64}$	0.609375	15.4781
$\frac{1}{8}$	0.125	3.1750	$\frac{5}{8}$	0.625	15.8750
$\frac{9}{64}$	0.140625	3.5719	$\frac{41}{64}$	0.640625	16.2719
$\frac{5}{32}$	0.15625	3.9688	$\frac{21}{32}$	0.65625	16.6688
$\frac{11}{64}$	0.171875	4.3656	$\frac{43}{64}$	0.671875	17.0656
$\frac{3}{16}$	0.1875	4.7625	$\frac{11}{16}$	0.6875	17.4625
$\frac{13}{64}$	0.203125	5.1594	$\frac{45}{64}$	0.703125	17.8594
$\frac{7}{32}$	0.21875	5.5563	$\frac{23}{32}$	0.71875	18.2563
$\frac{15}{64}$	0.234375	5.9531	$\frac{47}{64}$	0.734375	18.6531
$\frac{1}{4}$	0.25	6.3500	$\frac{3}{4}$	0.75	19.0500
$\frac{17}{64}$	0.265625	6.7469	$\frac{49}{64}$	0.765625	19.4469
$\frac{9}{32}$	0.28125	7.1438	$\frac{25}{32}$	0.78125	19.8438
$\frac{19}{64}$	0.296875	7.5406	$\frac{51}{64}$	0.796875	20.2406
$\frac{5}{16}$	0.3125	7.9375	$\frac{13}{16}$	0.8125	20.6375
$\frac{21}{64}$	0.328125	8.3344	$\frac{53}{64}$	0.828125	21.0344
$\frac{11}{32}$	0.34375	8.7313	$\frac{27}{32}$	0.84375	21.4313
$\frac{23}{64}$	0.359375	9.1281	$\frac{55}{64}$	0.859375	21.8281
$\frac{3}{8}$	0.375	9.5250	$\frac{7}{8}$	0.875	22.2250
$\frac{25}{64}$	0.390625	9.9219	$\frac{57}{64}$	0.890625	22.6219
$\frac{13}{32}$	0.40625	10.3188	$\frac{29}{32}$	0.90625	23.0188
$\frac{27}{64}$	0.421875	10.7156	$\frac{59}{64}$	0.921875	23.4156
$\frac{7}{16}$	0.4375	11.1125	$\frac{15}{16}$	0.9375	23.8125
$\frac{29}{64}$	0.453125	11.5094	$\frac{61}{64}$	0.953125	24.2094
$\frac{15}{32}$	0.46875	11.9063	$\frac{31}{32}$	0.96875	24.6063
$\frac{31}{64}$	0.484375	12.3031	$\frac{63}{64}$	0.984375	25.0031
$\frac{1}{2}$	0.5	12.7000	1	1.0000	25.4000

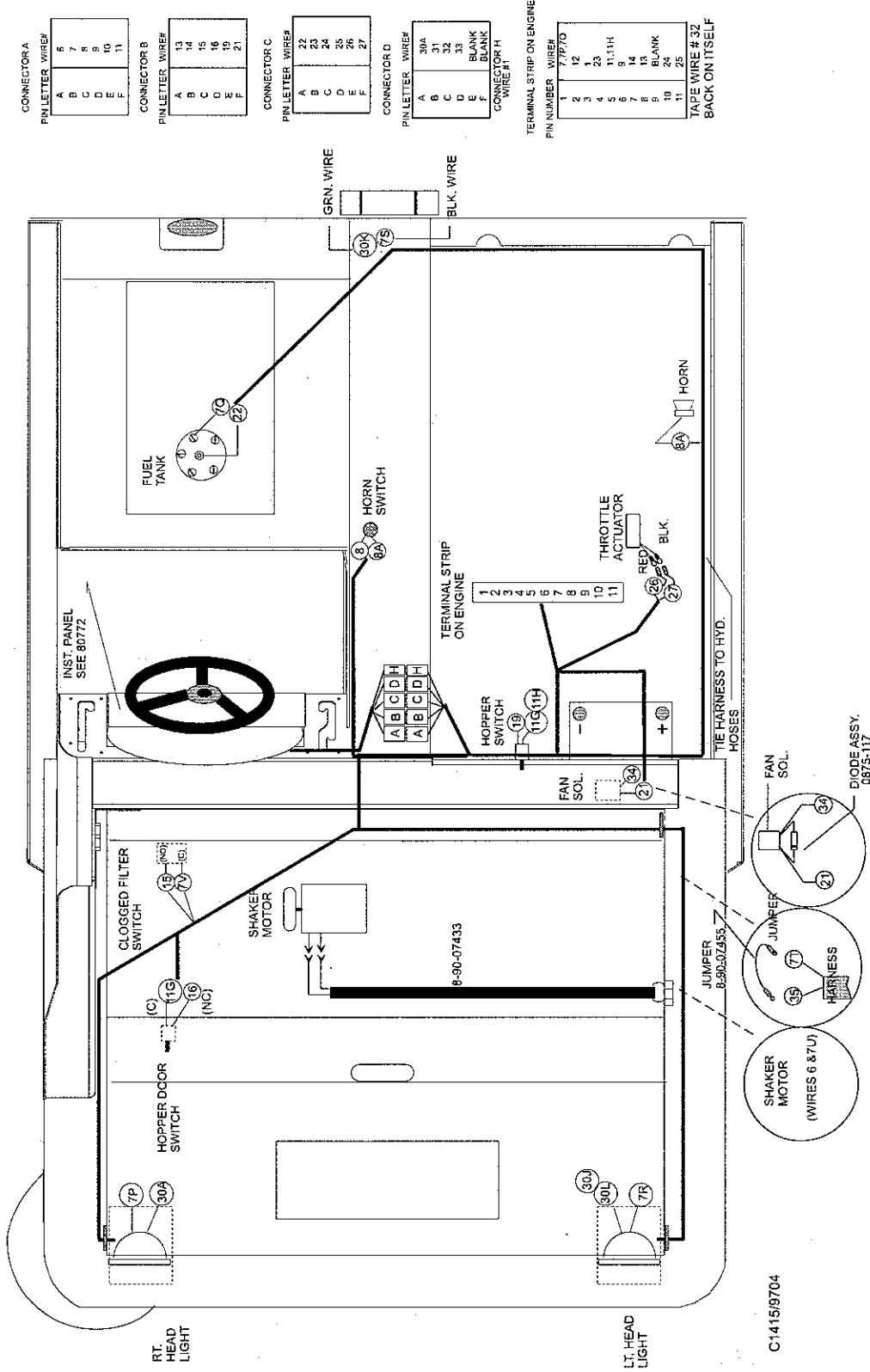
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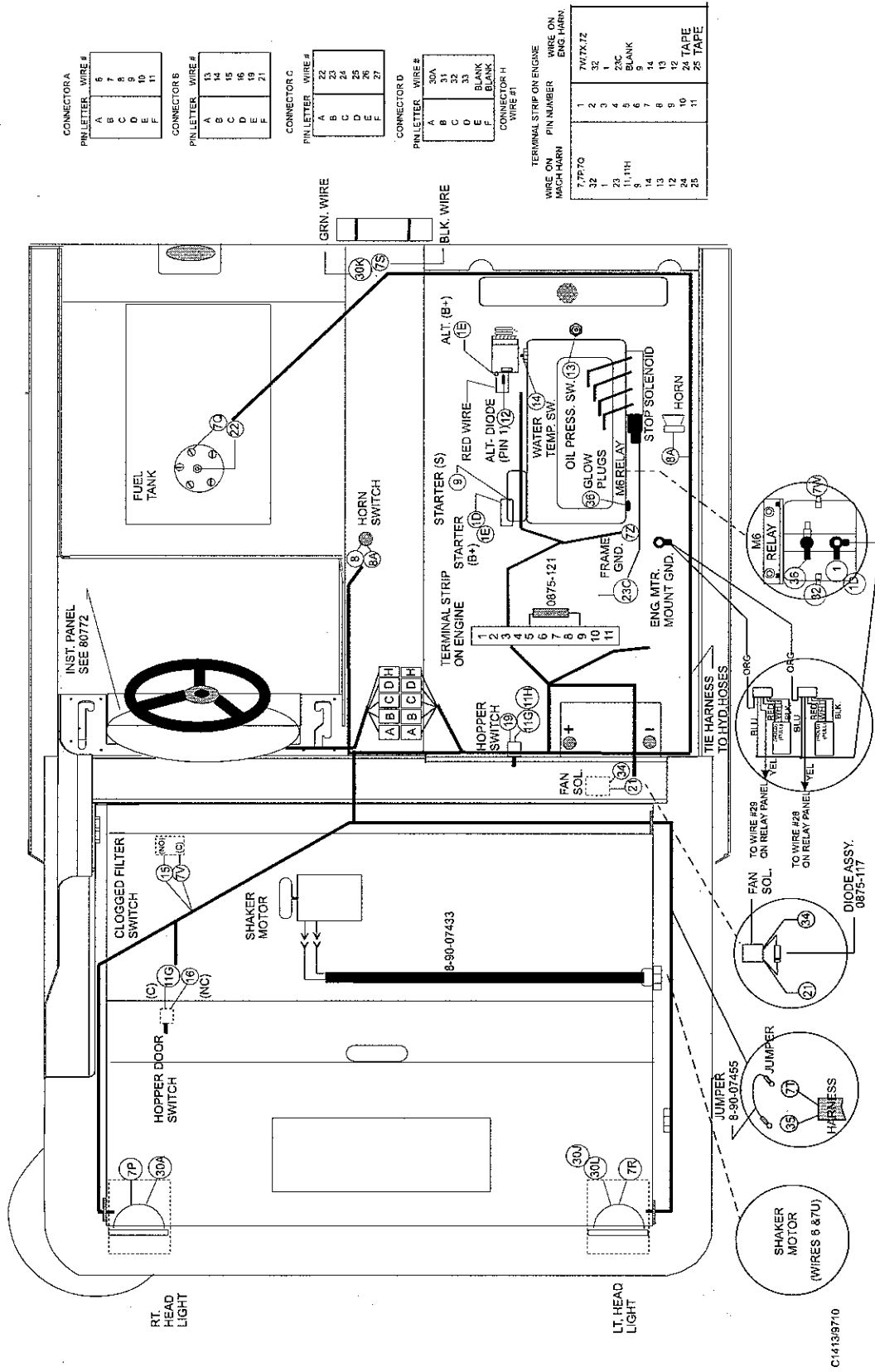


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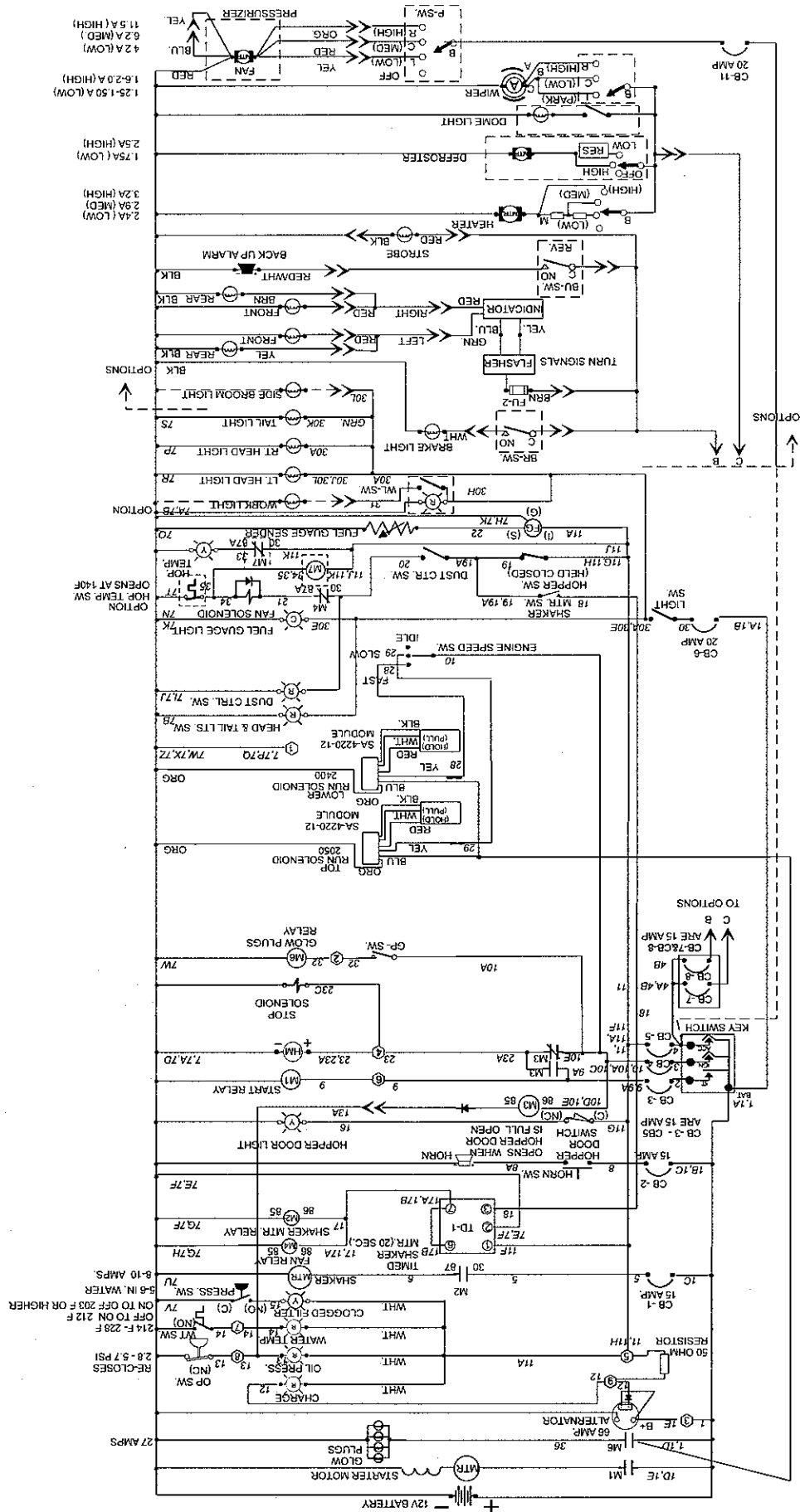
MACHINE CONNECTION DIAGRAM - MPV60 GAS



MACHINE CONNECTION DIAGRAM -MPV 60 DIESEL

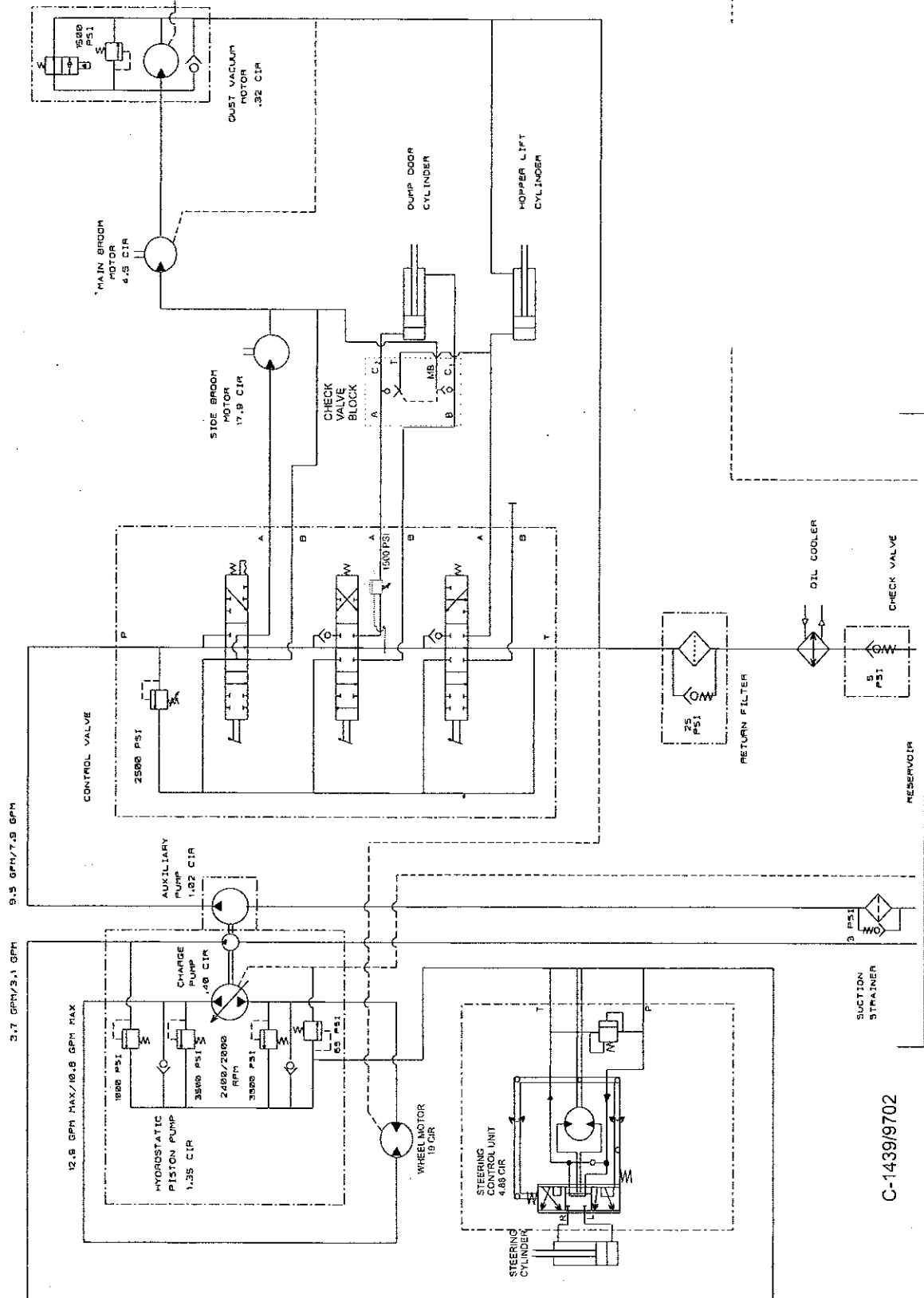


SCHEMATIC -MPV 60 DIESEL



American-Lincoln
MPV 60

HYDRAULIC SCHEMATIC



HARDWARE ABBREVIATIONS

ABBREVIATIONS - SCREWS

ADJ	= Adjusting Screw
ADJ.SP	= Adjusting Plunger Screw
BHM	= Binding Head Machine Screw
BHS	= Button Head Socket Screw
CAPT.SL	= Captivated Slotted Screw
CAPT.WG	= Captivated Wing Screw
FHM	= Flat Head Machine Screw
FIL.HM	= Filister Head Machine Screw
HHC	= Hexagon Head Cap Screw
HHM	= Hexagon Head Machine Screw
HIHD	= 1/2 High Head Screw
HSHC	= Hexagonal Socket Head Cap Screw
HSFHC	= Hexagonal Socket Flat Head Cap Screw
KNH	= Knurled Head Screw
MHHC	= Metric Hexagon Head Cap Screw
PHM	= Pan Head Machine Screw
RHD	= Round Head Drive Screw
RHM	= Round Head Machine Screw
RHW	= Round Head Wood Screw
SHC	= Shiny Crown Cap Screw
SHTB	= Shoulder Thumb Screw
SQ	= Square Head Screw
TB	= Thumb Screw
THM	= Truss Head Machine Screw
WELD	= Weld Stud
WG	= Wing Screw

ABBREVIATIONS - SETSCREWS

HS	= Hexagonal Socket Setscrew
S	= Slotted Setscrew
SH	= Square Head Setscrew
-KCP	= Knurled Cup Point Setscrew
-CP	= Cup Point Setscrew
-OP	= Oval Point Setscrew
-FDP	= Full Dog Point Setscrew
-HDP	= Half Dog Point Setscrew
-FP	= Flat Point Setscrew
-COP	= Cone Point Setscrew

HARDWARE LEGEND

<u>Key No.</u>	<u>Part Number</u>	<u>Description</u>
H1	2-00-05060	Screw, #6-32 x 1.250 RHM
H2	2-00-00455	Flat Washer, .375 x .156 x .047
H3	2-00-01499	Lock Washer, #6 Med. Helical Spring
H4	2-00-00624	Nut, #6-32 Hex
H5	2-00-00645	Nut, Hex Fiber Insert #6-32
H6	2-00-00049	Screw, # 10-24 x .500 RHM
H7	2-00-00056	Screw, # 10-24 x .750 RHM
H8	2-00-00039	Screw, 10-24 x 1.000 RHM
H9	2-00-00426	Flat Washer, .500 x .219 x .063
H10	2-00-00519	Lock Washer, # 10 Med HS
H11	2-00-00605	Nut, Hex MS # 10-24 x .375 x .125
H12	2-00-01246	Nut, Hex Fiber Insert #10-24
H13	2-00-00054	Screw, 1/4-20 x .500 RHM
H14	2-00-00219	Screw, 1/4-20 x .500 HHC
H15	2-00-00221	Screw, 1/4-20 x .750 HHC
H16	2-00-03051	Screw, 1/4-20 x .750 HSHC
H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC
H18	2-00-00060	Screw, 1/4-20 x 1.250 RHM
H19	2-00-02587	Screw, 1/4-20 x 1.250 HHC
H20	2-00-00203	Screw, 1/4-20 x 1.500 HHC
H21	2-00-01769	Screw, 1/4-20 x 1.750 HHC
H22	2-00-02589	Screw, 1/4-20 x 2.000 HHC
H23	2-00-01980	Screw, 1/4-20 x 2.500 HHC
H24	2-00-00220	Screw, 1/4-20 x .625 HHC
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218
H26	2-00-00641	Nut, 1/4-20 Insert Fiber
H27	2-00-03702	Washer, .625 x .281 x .063
H28	2-00-04685	Screw, 1/4-20 x .750 HHC
H29	2-00-04966	Screw, 1/4-20 x 1.500 HHM
H30	2-00-04687	Lock Washer, Hel. Spring 1/4 Med.
H31	2-00-04695	Screw, # 10-32 x .630 RHM
H32	2-00-04688	Nut, 1/4-20 Hex.
H33	2-00-00224	Screw, 5/16-18 x .500 HHC
H34	2-00-00208	Screw, 5/16-18 x .750 HHC
H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM
H36	2-00-00196	Carriage Bolt, 5/16-18 x 1.000
H37	2-00-00207	Screw, 5/16-18 x 1.250 HHC
H38	2-00-00225	Screw, 5/16-18 x 1.500 HHC
H39	2-00-00218	Screw, 5/16-18 x 2.000 HHC
H40	2-00-01770	Screw, 5/16-18 x 2.750 HHC
H41	2-00-02597	Screw, 5/16-18 x 3.250 HHC
H42	2-00-02655	Screw, 5/16-18 x 4.500 HHC
H43	2-00-00409	Flat Washer, .687 x .344 x .062
H44	2-00-00530	Lock Washer, 5/16 HS Med.
H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265
H46	2-00-00644	Nut, 5/16-18, Insert Fiber
H47	2-00-00232	Screw, 3/8-16 x .750 HHC
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC
H51	2-00-00216	Screw, 3/8-16 x 2.000 HHC
H52	2-00-00402	Flat Washer, .750 x .390 x .094
H53	2-00-02310	Lock Washer, Helical Spring 3/8
H54	2-00-02360	Nut, 3/8-16 Hex.
H55	2-00-00643	Nut, 3/8-16 Stop

HARDWARE LEGEND

Key No.	Part Number	Description
H56	2-00-00239	Screw, 1/2-13 x 1.000 HHC
H57	2-00-00240	Screw, 1/2-13 x 1.250 HHC
H58	2-00-00241	Screw, 1/2-13 x 1.750 HHC
H59	2-00-00242	Screw, 1/2-13 x 2.250 HHC
H60	2-00-02682	Screw, 1/2-13 x 2.750 HHC
H61	2-00-02616	Screw, 1/2-13 x 3.000 HHC
H62	2-00-00405	Flat Washer, 1.063 x .531 x .094
H63	2-00-02312	Lock Washer, 1/2 HS Med.
H64	2-00-00596	Nut, Hex. 1/2-13 x .750 x .437
H65	2-00-04936	Nut, 1/2-13 Fibre Lock
H66	2-00-02689	Screw, 1/2-20 x 1.000 HHC
H67	2-00-00614	Nut, Hex 1/2-20
H68	2-00-00640	Nut, Hex Fiber Insert 1/2-20
H69	2-00-01255	Screw, 5/16-18 x .875 HHC
H70	2-00-05254	Screw, 3/4-10 x 2.250 HHC
H71	2-00-05255	Nut, 3/4-10 Nylon Lock
H72	2-00-00518	Lock Washer, Helical Spring
H73	2-00-00247	Screw, 1/2-13 x 2.500 HHC
H74	2-00-03170	Flat Washer, 1.500 x .750 x .125
H75	2-00-00618	Nut, Hex Jam 3/8-16
H76	2-00-00632	Nut, Fiber Insert 3/8-24 Steel
H77	2-00-00484	Flat Washer, .625 x .375 x .046
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062'
H80	2-00-02196	Carriage Bolt, 1/4-20 x 1.000 RHM
H81	2-00-05276	Screw, 3/8-16 x 5.500
H82	2-00-00505	Lock Washer, 3/8 Int. Tooth
H83	2-00-04877	Screw, 1/4-20 x 1.000 BHS
H84	2-00-00228	Screw, 5/16-18 x 2.250 HHC
H85	2-00-00650	Nut, Cap 3/8-16 Low Crown
H86	2-00-03575	Carriage Bolt, 1/4-20 x .750
H87	2-00-00263	Set Screw, 1/4-20 x .250 HSKCP
H88	2-00-05258	Screw, #8-325 x .750 BHS
H89	2-00-01372	Nut, Fiber Insert #8-32 Steel
H90	2-00-03569	Carriage Bolt, 5/16-18 x .750
H91	2-00-05279	Screw, M6 x 1.0 x 20 mm MHHC
H92	2-00-04801	Flat Washer, .875 x .375 x .125
H93	2-00-00222	Screw, 1/4-20 x 1.250 HHM
H94	2-00-00410	Flat Washer, .875 x .375 x .060
H95	2-00-03382	Spring Washer, .875 x .500 x .015
H96	2-00-02605	Screw, 3/8-16 x 4.500 HHC
H97	2-00-04677	Screw, 1/4-20 x .750 HSC
H98	2-00-05277	Screw, 1/2-13 x .750 HSHC
H99	2-00-02810	Screw, 1/4-20 x 1.000 FHM
H100	2-00-03062	Screw, #10-24 x .625 THM
H101	2-00-04897	Screw, #10-24 x 1.250 THM
H102	2-00-04795	Screw, #10-24 x .750 BHS
H103	2-00-00089	Screw, 10-24 x 1.500 RHM
H104	2-00-03541	Screw, 1/4-20 x 1.500 FHSCH
H105	2-00-05260	Nut, Jam #8-32
H106	2-00-04886	Screw, 3/8-16 x .500 HSHC
H107	2-00-04887	Screw, Main Broom Control
H108	2-00-04888	Washer, Main Broom Control
H109	2-00-00522	Lock Washer, 3/4 Helical Spring
H110	2-00-03039	Screw, 1/4-20 x .625 HSHC
H111	2-00-03296	Screw, 3/8-16 x 4.000 HHC

HARDWARE LEGEND

<u>Key No.</u>	<u>Part Number</u>	<u>Description</u>
H112	2-00-02603	Screw, 3/8-16 x 3.500 HHC
H113	2-00-03333	Screw, 3/8-16 x 3.750 HHC
H114	2-00-00633	Nut, Fiber 1/4-28
H115	2-00-03063	Screw, #10-24 x .750 THM
H116	2-00-01951	Carriage Bolt, 1/4-20 x 1.250
H117	2-00-05067	Flat Washer, 1.750 x .531 x .100
H118	2-00-02618	Screw, 1/2-13 x 3.500 HHC
H119	2-00-05005	Screw, M10 x 1.500 30 mm MHHC
H120	2-00-03829	Lock Washer, 3/8 Bolt
H121	2-00-00090	Screw, #8-32 x 1.500 RHM
H122	2-00-05216	Screw, 1/4-20 x 5.000 HHC
H123	2-00-00204	Screw, 1/4-20 x 1.500 HHC
H124	2-00-02296	Lock Washer, #10 Ext. Shakeproof
H125	2-00-00418	Flat Washer, .984 x .627 x .063
H126	2-00-03466	Screw, #10-16 x .500
H127	2-00-03522	Washer, 5/16 x 1.250 x .050
H128	2-00-04681	Carriage Bolt, 5/16-18 x 1.250
H129	2-00-02311	Lock Washer, 4.38 Split
H130	2-00-03334	Screw, .44-20 x 1.000 HHC
H131	2-00-03855	Carriage Bolt, 3/8-16 x 1.000
H132	2-00-00503	Lock Washer, 1/4 Ext.
H133	2-00-00006	Screw, #10-24 x .675 FHM
H134	2-00-03032	Screw, 3/8-16 x .750 FHS
H135	2-00-05298	Flat Washer, .344 x 2.000 x .062
H136	2-00-03940	Screw, #10-24 x .500 T/C HH
H137	2-00-05299	Screw, #10-24 x 1.250 HSHC
H138	2-00-00504	Lock Washer, Int.
H139	2-00-00611	Nut, Hex Jam, 3/8-24
H140	2-00-00447	Flat Washer, 1.250 x .280 x .090
H141	2-00-00501	Lock Washer, Int.
H142	2-00-05244	Carriage Bolt, 1/2-13 x 2.000
H143	2-00-00432	Flat Washer, 1.13 x .770 x .063
H144	2-00-02303	Lock Washer, Int.
H145	2-00-04180	Setscrew, 1/4-20 x .500
H146	2-00-00420	Flat Washer, 1.000 x .516 x .063
H147	2-00-00642	Nut, Fibre Insert 5/18-18
H148	2-00-01778	Screw, 1/2-13 x 2.000 HHC
H149	2-00-01803	Washer, 1.063 x .031 x .063
H150	2-00-00211	Screw, 5/16-18 x 1.750 HHC
H151	2-00-00213	Screw, 5/16-18 x .625 HHC
H152	2-00-01562	Carriage Bolt, 5/16-18 x 2.250
H153	2-00-03266	Washer
H154	2-00-04363	Screw, M8-1.250 x .750
H155	2-00-05044	Lock Washer, M14 Split
H156	2-00-05079	Screw, M14 x 1.500 x 25 mm HHC
H157	2-00-00217	Screw, 5/16-18 x 2.000 HHC
H158	2-00-05306	Screw, M14 x 35 mm HHC
H159	2-00-00512	Lock Washer
H160	2-00-00441	Flat Washer, .438 x .200 x .036
H161	2-00-00153	Screw, #8-24 x .875 OHM
H162	2-00-03961	Screw, 5/16-24 x 1.000 HHC
H163	2-00-03570	Carriage Bolt, 3/8-16 x .750
H164	2-00-00107	Screw, 10-24 x 4.50 RD. HD.
H165	2-00-00589	Nut, Hex Jam, .25-20
H166	2-00-00066	Screw, 6-32 x .50 RHM
H167	2-00-04312	Screw, 10-24 x .625 T/C Hex HD.

HARDWARE LEGEND

Key No.	Part Number	Description
H168	2-00-05261	Insert, 1/4-20
H169	2-00-02637	Screw, 1/4-20 x 2.750 HHC
H170	2-00-03061	Screw, # 10-24 x .500 THM
H171	2-00-02371	Nut, Hex Jam .50-13 STL
H172	2-00-04986	Screw, 1/4-20 x 4.500
H173	2-00-02709	Screw, 5/16-18 x 1.500
H174	2-00-00183	Screw, 1/4-20 x .750 THM
H175	2-00-01252	Screw, 10-24 x 2.750 RDH
H176	2-00-05337	Screw, #8-32 x .750 BHS SS
H177	2-00-05324	Threaded Insert, #8-32
H178	2-00-00206	Screw, 5/16-18 x 1.000 HHC
H179	2-00-04948	Screw, 25mm - M8 x 1.250
H180	2-00-04378	Clip, Water Line
H181	2-00-05078	Screw, M6 x 1.000 x 10mm HHC
H182	2-00-00236	Screw, 5/8-16 x 2.500 HHC
H183	2-00-05042	Lock Washer, M10
H184	2-00-04366	Screw, M10 x 1.500 x 25mm
H185	2-00-02588	Screw, 1/4-20 x 1.125 HHC Cad. Pl.
H186	2-00-03041	Screw, 1/4 x 1.250 HSC-SS
H187	2-00-00071	Screw, #10-24 x 1.250 RHM
H188	2-00-01987	Flat Washer, .438 x .200 x .036 sst
H189	2-00-00460	Flat Washer, .437 x .192 x .031-s
H190	2-00-00529	Lock Washer - helical sps, 8 MDM
H191	2-00-00602	Nut, MSCR - Hex, 8-32
H192	2-00-04841	Nut 3/4 - 16 Slotted Hex head
H193	2-00-03412	Lock Nut, .375 - 24, sps 21 FK
H194	2-00-03537	Screw - 1/4 - 20 x 2.000
H195	2-00-04210	Clamp
H196	2-00-05350	Screw 1/4 - 28 x .63 HHC
H197	2-00-03979	Washer 1.00 x .391 x .06
H198	2-00-03808	Washer 1.50 x .750 x .06
H199	2-00-04603	Clamp
H200	2-00-00626	Nut, Hex MS #10 - 32 x .375 x .125
H201	2-00-02011	Plastic Plug, .440 Dia (Diesel)
H202	2-00-04514	Plastic Plug, .562 Dia (LP & Gas)
H203	2-00-04794	Screw, #10 - 24 x .625 BHS
H204	2-00-04873	Clamp
H205	2-00-04721	Grommet, 1.750 x 1.125 x .500 x .125
H206	2-00-00407	Washer, Flat .562 x .265
H207	2-00-02227	Key, .125 x .750 SQ
H208	2-00-00772	Cotterpin .093 x 1.000
H209	2-00-00586	Nut Hex Jam 5/16 - 18x .500 x .187
H210	2-00-00776	Cotterpin .125x1.500
H211	2-00-02728	Screw 10 - 32 x .375 BHM
H212	2-00-00566	Fitting-Grease
H213	2-00-01254	Screw - 1/2 - 13 x 1.500 HHCS
H214	2-00-00462	Flat Washer, .562 x .250 x .031
H215	2-00-02558	Grease Zerk
H216	2-00-04378	Harness Clamp
H217	2-00-00511	Internal Washer, #6
H218	2-00-05345	Screw, Hex Head Cap
H219	2-00-05359	Nut, Serrated Flange 5/16-18
H220	2-00-02617	Screw, 50-13 x 3.25 HHC
H221	2-00-03335	Screw, Hex SOC Cap, .312 - 18 x .50
H222	2-00-02848	Screw, 10-32 x .50 Cad PL, STL RHM
H223	2-00-00631	Nut, .31 - 24 Fiber Insert

HARDWARE LEGEND

Key No.	Part Number	Description
H224	2-00-04686	Lock Washer-helical#10Scr.Med. SS
H225	2-00-04851	Washer, Engine Mount
H226	2-00-04689	Washer, 11/16 OD x .260 ID x .050
H227	2-00-04596	Screw, Hex Head 1/4 - 20 x 3.5
H228	2-00-02606	Screw, .375 - 24 x 1.00, STL HHC
H229	2-00-01490	Screw, .25 - 20 x .875 HHC STL
H230	2-00-00466	Flat Washer, .625 x .203 x .031
H231	2-00-02933	Screw, Mach 10 - 24 x 3.50
H232	2-00-04909	Yoke, Pin Assy.
H233	2-00-02638	Screw, HHC .25-20 x 3.00
H234	2-00-00064	Screw-RHM #10-24 x .88
H235	2-00-00197	Carriage Bolt, .38-16 x 2.75
H236	2-00-02369	Nut, Hex Jam, .38-16
H237	2-00-05356	Screw, 5/16 - 18 X 1.25 Grade 8
H238	2-00-03750	Carriage Bolt, .38-16 x 1.50
H239	2-00-02814	Screw-FHM .25-20x1.75
H240	2-00-05398	Screw, HSHC 3/8-16 x .50
H241	2-00-05395	Screw, RHM .25-20 x 4.00 Zinc
H242	2-00-05370	Screw, M12 - 16 x 1.75 x 40mm HHC
H243	2-00-00591	Nut, Hex-Jam .50-20
H244	2-00-05297	Nut, Insert Fiber, .38-16 Heavy Nut
H245	2-00-05401	Shoulder Screw, 1/2-3/4
H246	2-00-05122	Screw-HHC, .25-20 x 2.00
H247	2-00-04590	Washer
H248	2-00-05236	Flat Washer, 2.000 x .281 x .063
H249	2-00-00004	Screw-FHM #10-24 x 1.25
H250	2-00-04968	Screw-T/FRH #14-10 x 1.00 Type A
H251	2-00-02602	Screw, 3/8-16 x 2.750 HHC Cad. PI
H252	2-00-00600	Nut, Hex Heavy 3/8-16
H253	2-00-05120	Nut, .75-Hex Nyloc Jam
H254	2-00-04625	Screw-HHM .375-24 x .75
H255	2-00-00227	Screw-HHC .313-18 x 2.25
H256	2-00-02354	Nut-Hex-Jam .50-20
H257	2-00-00093	Screw-RHM 6-32 x .75
H258	2-00-04062	Screw-T/FFH #6-20 x .50
H259	2-00-05343	Bolt Carriage, .38-16 x 3.50 sstl
H260	2-00-00615	Nut, Hex Fin .63 - 22
H261	2-00-05344	Screw - HHM .313 - 18 x 1.75 Stl
H262	2-00-00617	Nut, Hex, Finish .75-16
H263	2-00-02313	Lock Washer, HS .63 Scr. Med.
H264	2-00-02622	Screw, 5/16 - 18 x 1.000 HHM
H265	2-00-00506	Lock Washer, Int Tooth #8 Dia Screw
H266	2-00-05371	Screw-RHM #8-32 x 2.38
H267	2-00-00068	Screw-RHM #8-32 x .63
H268	2-00-00051	Screw-RH, .25 - 20 x .75
H269	2-00-00118	Screw - RHM #10 - 24 x .625
H270	2-00-05341	Screw-HHC .75-10 x 2.00
H271	2-00-03293	Nut-Hex-Fin .75-10
H272	2-00-04563	Screw, Shoulder #10-24
H273	2-00-03214	Screw, .31-18 x .75 Zinc PL HSHC
H274	2-00-02676	Screw, .50 - 13 x .75 HHM
H275	2-00-00237	Screw, HHC .375 - 16 x 3.00
H276	2-00-00223	Screw, HHC .25-20 x 1.25 nickel
H277	2-00-05164	Screw, HHM 5/16 - 18 x 3.50
H278	2-00-03044	Screw, .38 - 16 .75 HSHC
H279	2-00-04914	Screw, .50 - 13 x 4.50 HHC

HARDWARE LEGEND

Key No.	Part Number	Description
H280	2-00-00187	Bolt Carriage, .38 - 16 x 2.50
H281	2-00-00415	Flat Washer, .9375 x .468 x .0625SS
H282	2-00-02562	Fitting
H283	2-00-03842	Roll Pin, 1/4 x 1.00
H284	2-00-04845	Screw, 3/8-16 x 1.00 FHSC
H285	2-00-05153	Screw, 1/4 x 20 1.50 HHC
H286	2-00-05383	Washer, Special
H287	2-00-00264	Set Screw, 1/4-20 x .313 HSKCP
H288	2-00-00668	Wing Nut, 5/16-18
H289	2-00-00532	Snap Ring
H290	2-00-02049	Bearing - Double Seal
H291	2-00-02243	Square Key, .188 - .187 x 1.250
H292	2-00-02293	Lockwasher, 5/8 Int.
H293	2-00-03151	Spacer, 1/2 ID 3/4 .625 Lg.
H294	2-00-03158	Spacer, 1/2 ID 3/4 .3/8 Lg.
H295	2-00-03306	Bearing
H296	2-00-03413	Flat Washer, 1.125 x .765 x .062
H297	2-00-04345	Tye - Wrap
H298	2-00-04708	Terminal
H299	2-00-05183	Terminal, 1/4 x .03 12-10
H300	2-00-00767	Cotter Pin, .063 x .500
H301	2-00-04159	Flat Washer, 1.375 x .563 x .109 SS
H302	2-00-00490	Washer, Spring, Shakeproof
H303	2-00-05103	Flat Washer, .750 x .343 x .050 SS
H304	2-00-00246	Screw, .25 - 20 x 2.25 HHC
H305	2-00-00809	Screw, HSHC .31 - 18 x 1.00
H306	2-00-05405	Nut, 3/8 - 32 NEF 2A
H307	2-00-02963	Screw, RHM #10-32 1/4 PL. (Steel)
H308	2-00-05388	Sealing Washer 46/53 ESP OPT
H309	2-00-01081	Screw - T/C RH #8-32x.50type 2
H311	2-00-05024	Washer Flat, 2 x 1.06
H312	2-00-05227	Screw, HHC M14 x 1.50 x 45mmgr10
H313	2-00-04652	Screw, HHC .438 - 20 x 1.50
H314	2-00-03836	Bolt Carriage, .31 - 18 x 1.75
H315	2-00-00593	Nut, .38-16 Hex heavy Jam
H316	2-00-00044	Screw, RHM #8-32 x .50
H317	2-00-00252	Screw, .313-18 x 4.00 HHC
H318	2-00-04750	Screw, BTN HD SKT
H319	2-00-02352	Nut, Hex Hvy, .50-13 stl-zn.
H320	2-00-05424	Screw, Shoulder 1/2-1/2
H321	2-00-04699	Screw, HHC, .375-16 x 2.75
H322	2-00-03993	Screw, HHM 3/4-16 x 3.000
H323	2-00-00244	Screw, HHC .25-20 x 1.000
H324	2-00-05329	Screw, HHC M10 x 1.50 x 40MM SS
H325	2-00-00092	Screw, Ph. RHM #8-32 x 1.75 Zn.
H326	2-00-00235	Screw HHC .375-16 x 1.75
H327	2-00-05444	#10-24 BHCS 1.00 Black Oxide
H328	2-00-03994	Carriage Bolt, .31-18 x 1.50
H329	2-00-00036	Screw, RHM #10-24 x .25** NLS
H330	2-00-00397	Flatwasher .875 x .516 x .031 ss
H331	2-00-02779	Fhms #10-32 x .312
H332	2-00-05433	M16 x 1.50 Hex Nut (Metric) Gr 10.9
H333	2-00-00451	Flatwasher .750 x .312 x .065 ss-zn
H334	2-00-05450	Shoulder Screw, 5/16-18 x 3/8
H335	2-00-03404	Clamp - Witteck - C24P
H336	2-00-04620	O-Ring

ORDERING PARTS

Parts may be ordered from American-Lincoln authorized distributors. Record the information from the American-Lincoln serial plate to avoid delays in filling your order:

MODEL NO. 	SERIAL NO.
Manufactured By ALTO® AMERICAN LINCOLN TECHNOLOGY BOWLING GREEN, OHIO	

1. Use the model number, catalog number, and serial number when ordering.
2. Give the part number, description, and quality of parts needed.
3. Give shipping instructions for either freight, UPS, or parcel post.

Parts and supplies listed in this manual can be ordered from the following address:

American-Lincoln	American-Lincoln authorized distributor
1100 Haskins Road Bowling Green, Ohio 4302 1-800-331-7692	

MACHINE CATALOG NUMBERS

578-610	Gas Sweeper
578-612	Diesel Sweeper
578-614	Gas Total Steel Sweeper
578-615	Diesel Total Steel Sweeper
578-616	LP Sweeper
578-617	LP Total Steel Sweeper

NOTES



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MAIN BROOM LEVER AND LIFT CABLE - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-08-00876	Bracket Broom Lift Main Broom	1
2	8-39-00017	Knob Assembly	1
3	8-66-00188	Lever Handle	1
4	8-08-00831	Adjustment Angle/Main Broom	1
5	8-39-00003	Control Knob, Small	1
6	8-08-00779	Pivot, Main Broom Lift	1
7	2-95-04182	Nut, Elastic Stop	1
8	2-00-00656	Nut, 1/2 - 13 Cap (Acorn)	1
9	8-66-00187	Rod Link	1
10	2-00-00776	Cotter Pin	2
11	8-10-00044	Cable	1
12	7-60-00160	Pulley	2
13	7-13-07130	Retainer	2
14	8-08-00874	Bracket, Pulley Mounting	1
15	2-00-02369	Nut, Hex Jam	1

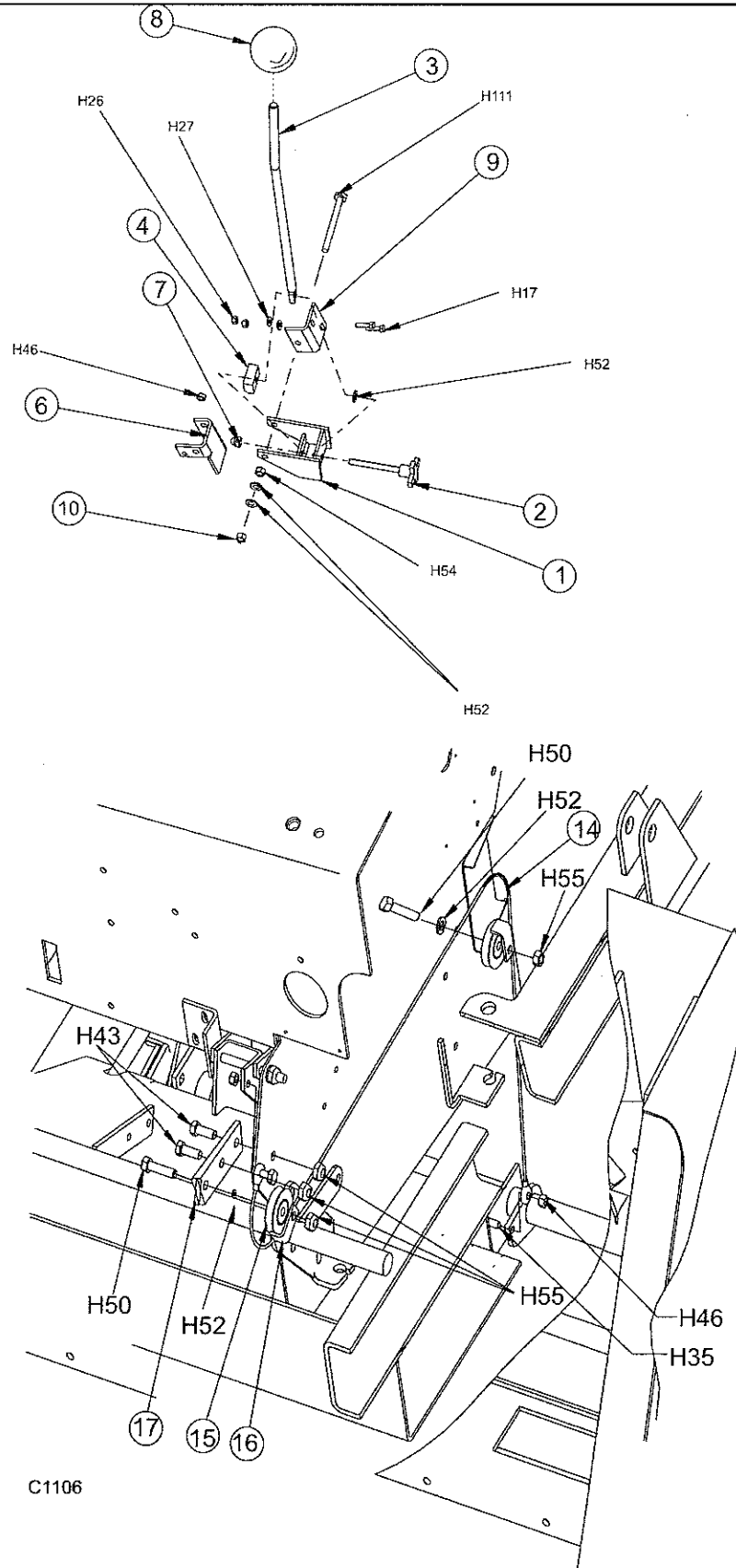
HARDWARE USED:

H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	2
H27	2-00-03702	Washer, .625 x .281 x .063	2
H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM	1
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	1
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	2
H50	2-00-00234	Bolt, 3/8 - 16 x 1.500 HHC	2
H52	2-00-00402	Flat Washer, .750 x .390 x .094	*
H54	2-00-02360	Nut, 3/8-16 Hex.	1
H55	2-00-00643	Nut, 3/8 - 16 Stop	2
H111	2-00-03296	Screw, 3/8-16 x 4.000 HHC	1

*AS NEEDED

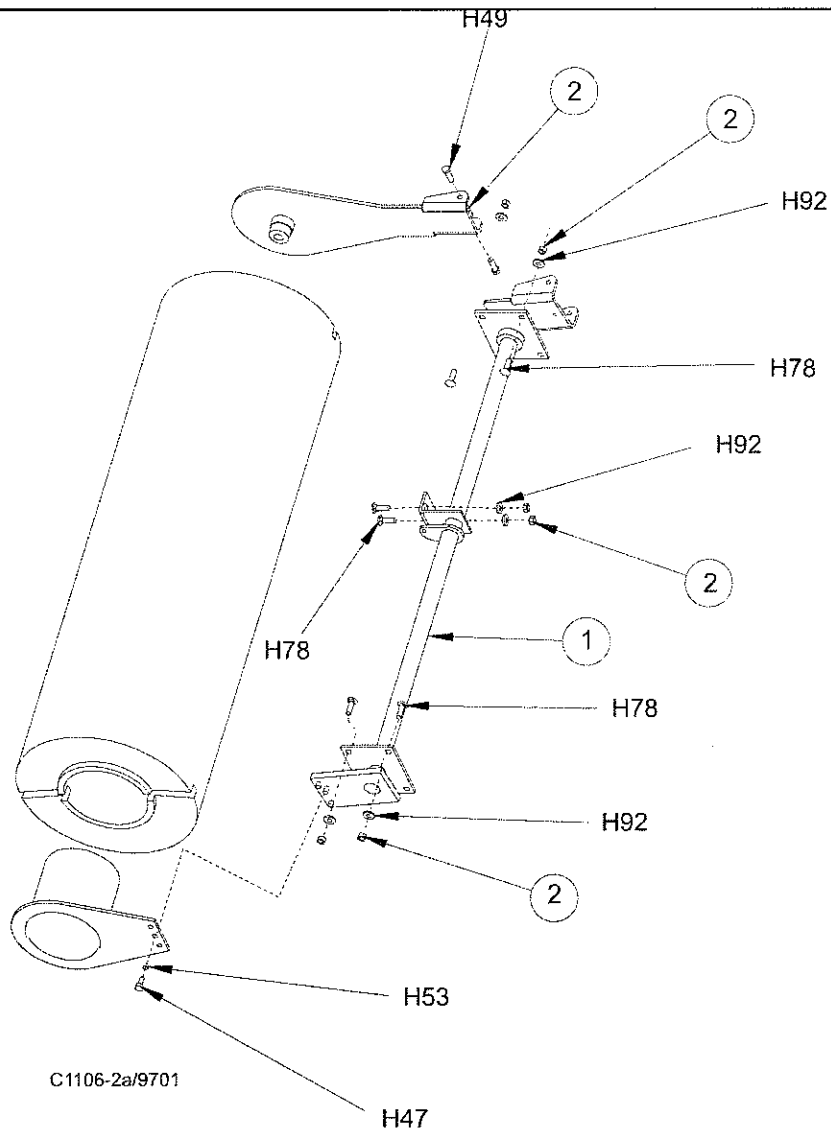
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MAIN BROOM LEVER AND LIFT CABLE - EXPLODED VIEW



C1106

MAIN BROOM LIFT FRAME



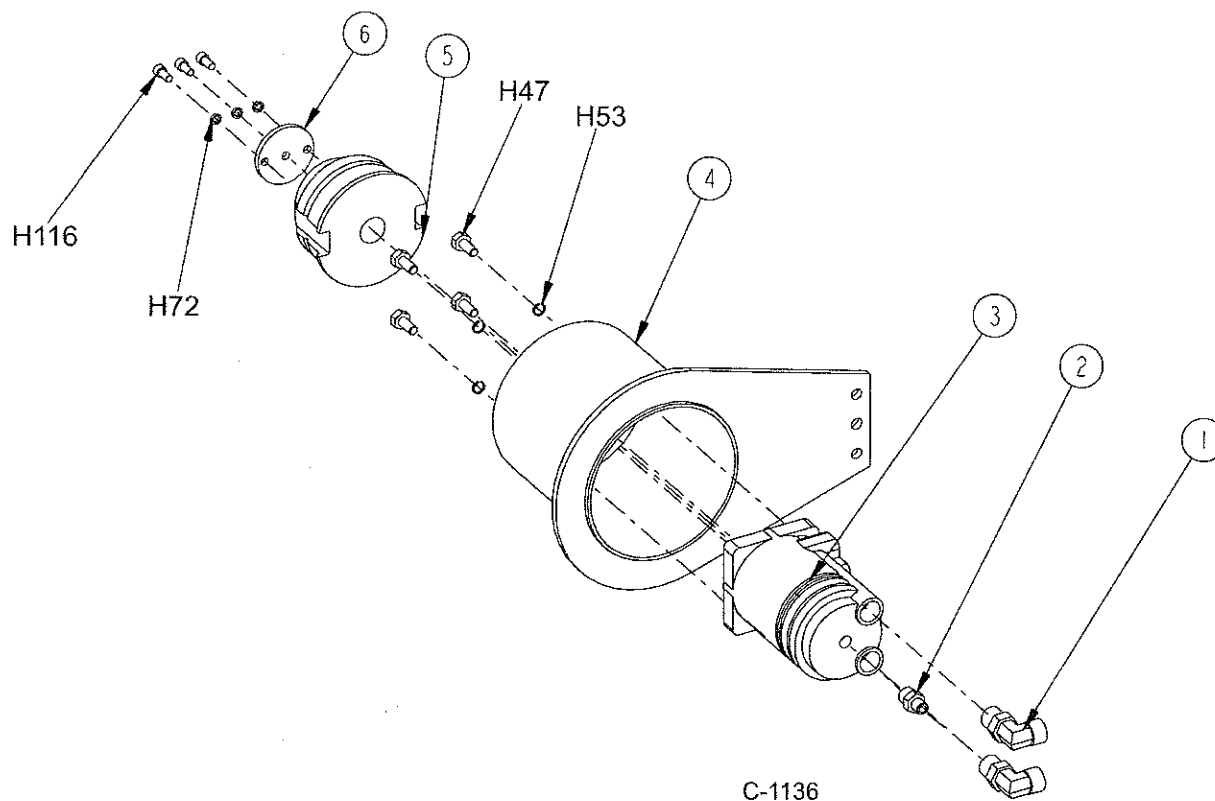
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-03-04319	Main Broom Lift Frame Assembly	1
2	2-95-04182	Nut, Eleastic Stop Nut	8

HARDWARE USED:

H47	2-00-00232	Screw, 3/8-16 x .750 HHC	1
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC	2
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	1
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250	6
H92	2-00-04801	Flat Washer, .875 x .375 x .125	6

C1326/9702

MAIN BROOM DRIVER



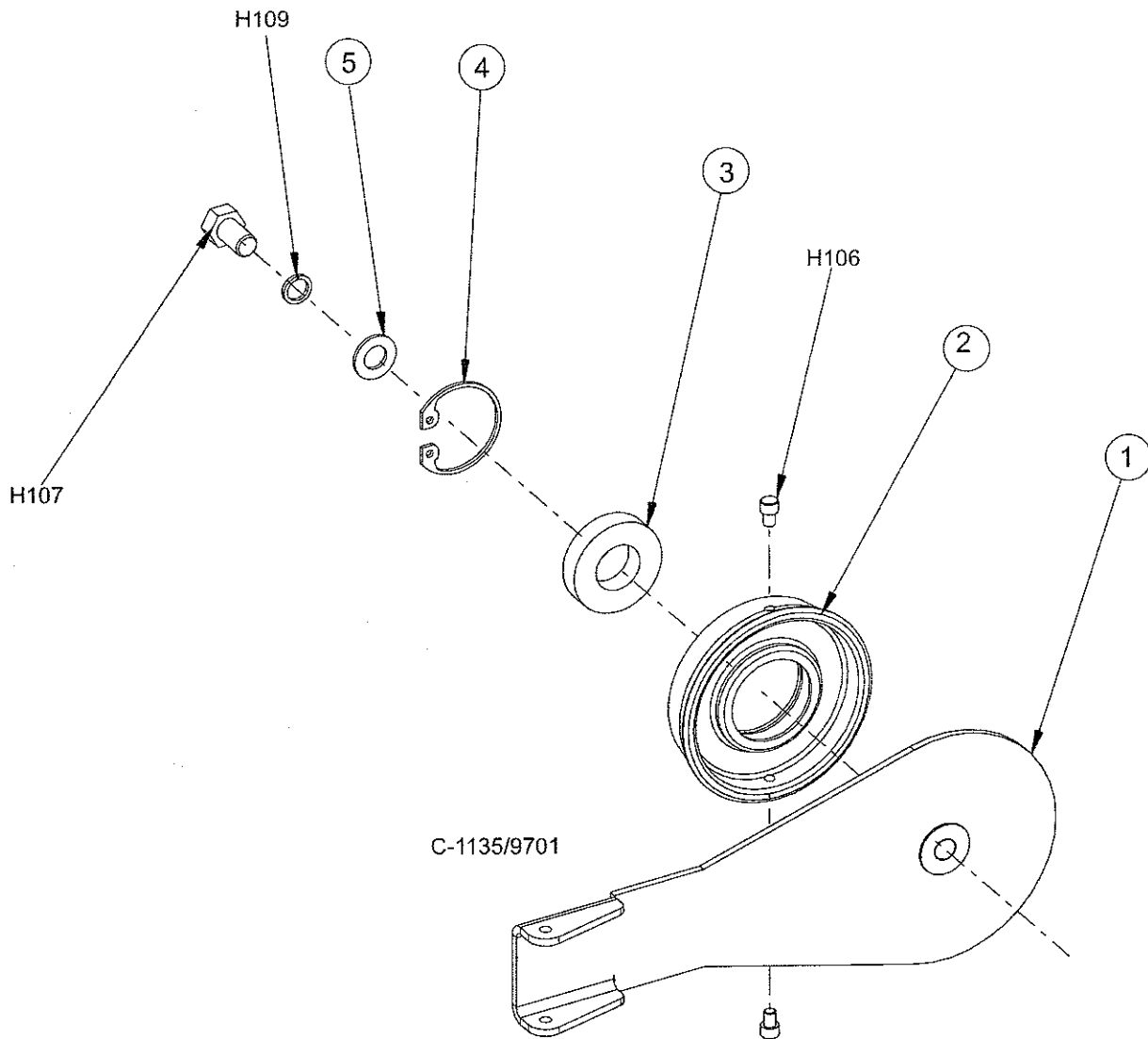
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	2-00-04885	Fitting	2
2	2-00-04895	Fitting	1
3	0882-040	Motor	1
	880-448	Motor Seal Kit (Service Part)	
4	8-16-00041	Drive Broom Arm	1
5	8-33-09046-1	Driver, Hub	1
6	8-58-05160	Hub, Lock Plate	1

HARDWARE USED:

H47	2-00-00232	Screw, 3/8-16 x .750 HHC	4
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	4
H72	2-00-00518	Lock Washer, Helical Spring	3
H116	2-00-03039	Screw, 1/4-20 x .625 HSHC	3

C1136/9901

MAIN BROOM IDLER



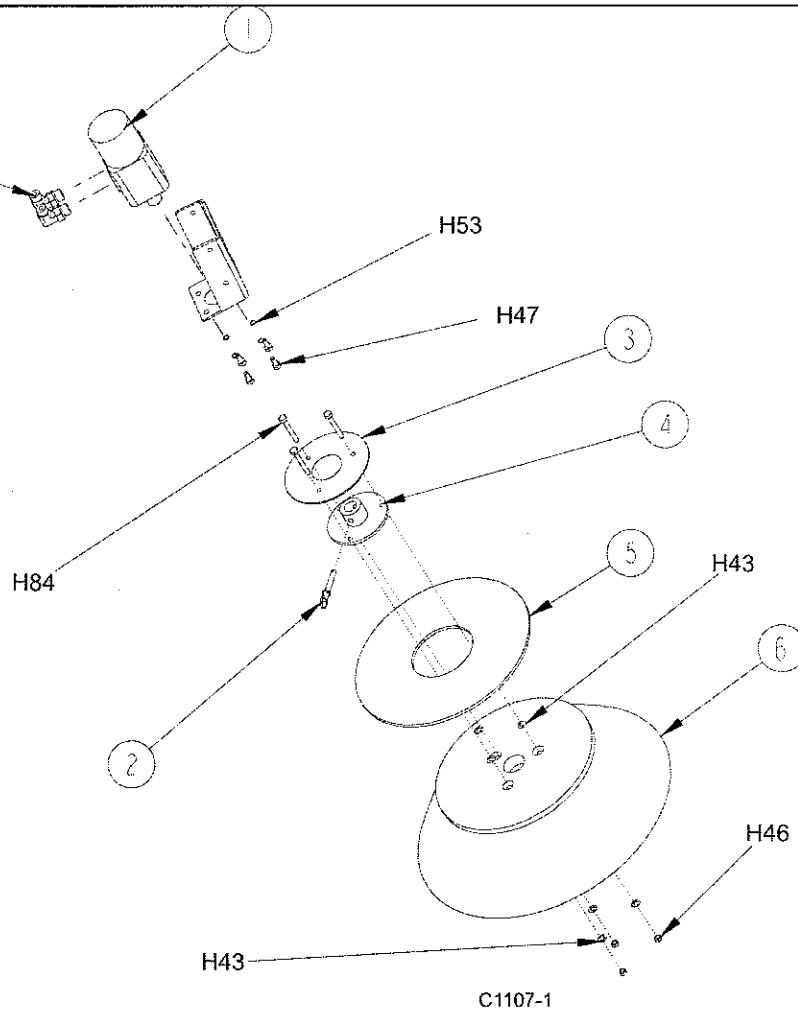
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-16-00064	Broom Idler Arm	1
2	8-33-09090	Idler, Machined	1
3	2-00-04889	Bearing	1
4	2-00-04890	Clip, Retainer	1
5	8-75-01157	Washer	1

HARDWARE USED:

H106	2-00-04886	Screw, 3/8-16 x .500 HSHC	2
H107	2-00-04887	Screw	1
H109	2-00-00522	Lock Washer, Helical Spring	1

C1135/9901

SIDE BROOM ASSEMBLY



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	0882-050	Side Broom Motor	1
	0880-448	Side Broom Motor Seal Kit (Service Part)	
2	8-55-08122	Pin, Side Broom Flange	1
3	8-25-06010	Flange, Roller Disc	1
4	8-33-09091	Hub Weldment	1
5	8-66-05011	Disc, Roller	1
6	8-08-03211	Side Broom, Nylon	1
7	2-00-04921	Fitting	2

HARDWARE USED:

H43	2-00-00409	Flat Washer, .687 x .344 x .062	6
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	3
H47	2-00-00232	Screw, 3/8-16 x .750 HHC	4
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	4
H84	2-00-00228	Screw, 5/16-18 x 2.250 HHC	3

C1107/9812

SIDE BROOM LEVER - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-10-00039	Cable	Ref.
2	8-39-00003	Control Knob, Small	1
3	8-66-00190	Lever Handle	1
4	8-39-00017	Knob Assembly	1
5	8-08-00876	Broom Lift, Weldment	1
6	8-08-00775	Bracket, Angle Adjustment	1
7	7-60-00160	Pulley, Cable	1
8	2-00-00656	Nut, 1/2 -13 Cap (acorn)	1
9	8-08-00890	Bracket, Side Broom Lever Mtg.	1

HARDWARE USED:

H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM	3
H43	2-00-00409	Flat Washer, .687 x .344 x .062	4
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	3
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC	1
H54	2-00-02360	Nut, 3/8-16 Hex.	2
H94	2-00-00410	Flat Washer, .875 x .375 x .060	1
H111	2-00-03296	Screw, 3/8-16 x 4.00 HHC	1

C1327/9901

This diagram shows an exploded view of a mechanical assembly. The components are labeled as follows:

- 1**: A long, thin rod or shaft.
- 2**: A circular disc or plate.
- 3**: A vertical rod or shaft.
- 4**: A small rectangular block.
- 5**: A complex bracket or support structure.
- 6**: A bracket or support structure, similar to 5 but with different mounting points.
- 7**: A small rectangular block, similar to 4.
- 8**: A pulley or wheel with a central hub.

Additional labels with arrows pointing to specific parts or features:

- H50**: Points to a small cylindrical component on rod 1.
- H54**: Points to a small cylindrical component on rod 1 and another on rod 3.
- H46**: Points to the rectangular block 4.
- H52**: Points to a small cylindrical component on rod 3.
- H35**: Points to a bolt or screw on bracket 6.
- H85**: Points to a bolt or screw on bracket 5.
- H112**: Points to a bolt or screw on bracket 5.

Dashed lines indicate the assembly path and alignment of the components.

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MPV 60

SIDE BROOM LIFT SYSTEM - PARTS LIST

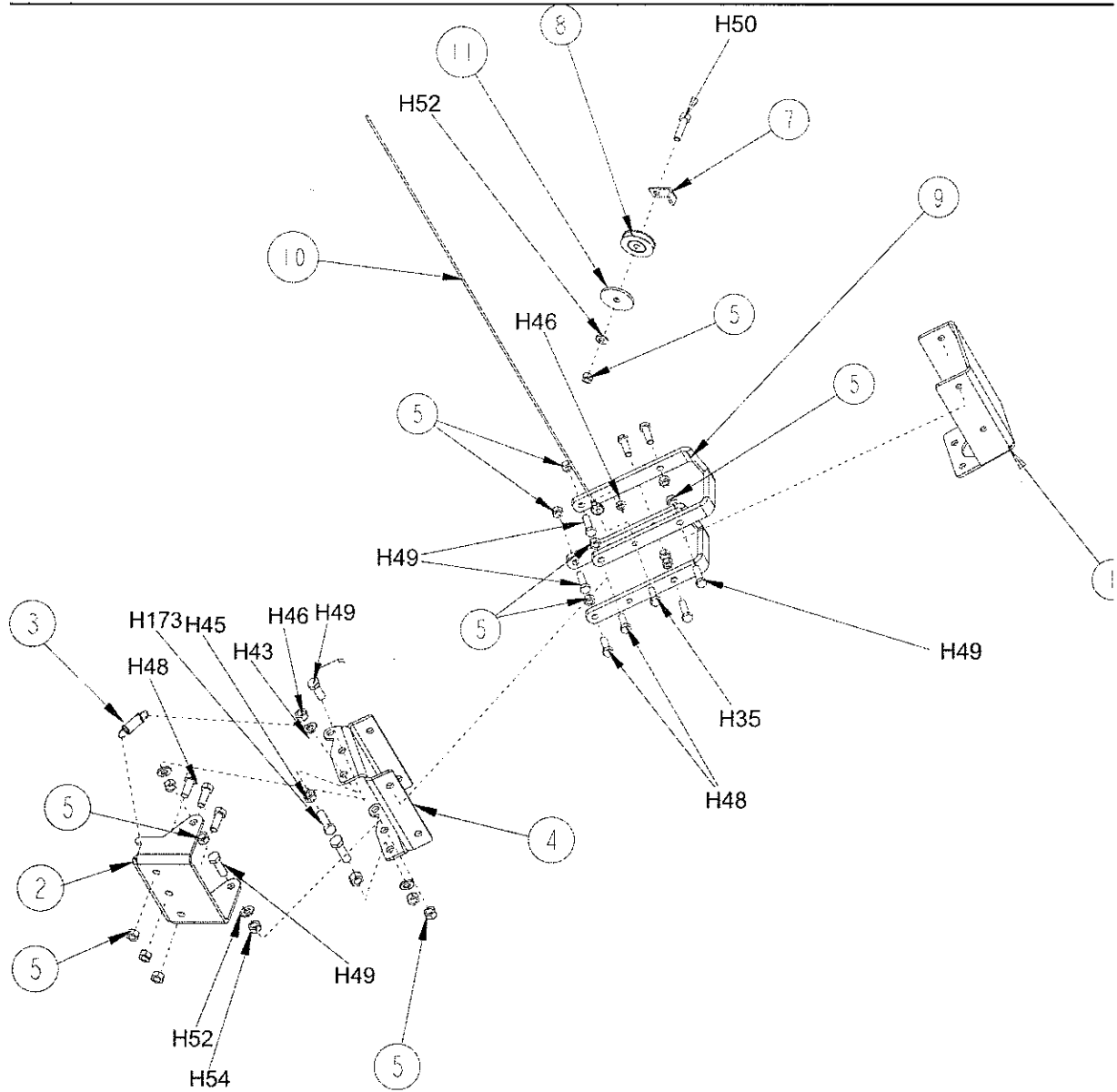
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-08-00772	Bracket, Side Broom	1
2	8-08-00790	Bracket	1
3	7-76-00101	Spring	2
4	8-08-00846	Pivot Bracket	1
5	2-95-04182	Nut, Elastic Stop	14
6			
7	7-13-07130	Clip, Cable Retainer	1
8	7-60-00160	Pulley, Cable	1
9	8-42-05143	Side Broom Link	2
10	8-10-00039	Cable	1
11	2-95-04689	Flat Washer	1

HARDWARE USED:

H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM	1
H43	2-00-00409	Flat Washer, .687 x .344 x .062	2
H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265	2
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	3
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	4
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC	7
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC	1
H52	2-00-00402	Flat Washer, .750 x .390 x .094	3
H54	2-00-02360	Nut, 3/8-16 Hex.	2
H173	2-00-02709	Screw, 5/16-18 x 1.500	2

C1328/9901

SIDE BROOM LIFT SYSTEM - EXPLODED VIEW



C-1328

BRAKE PEDAL - PARTS LIST

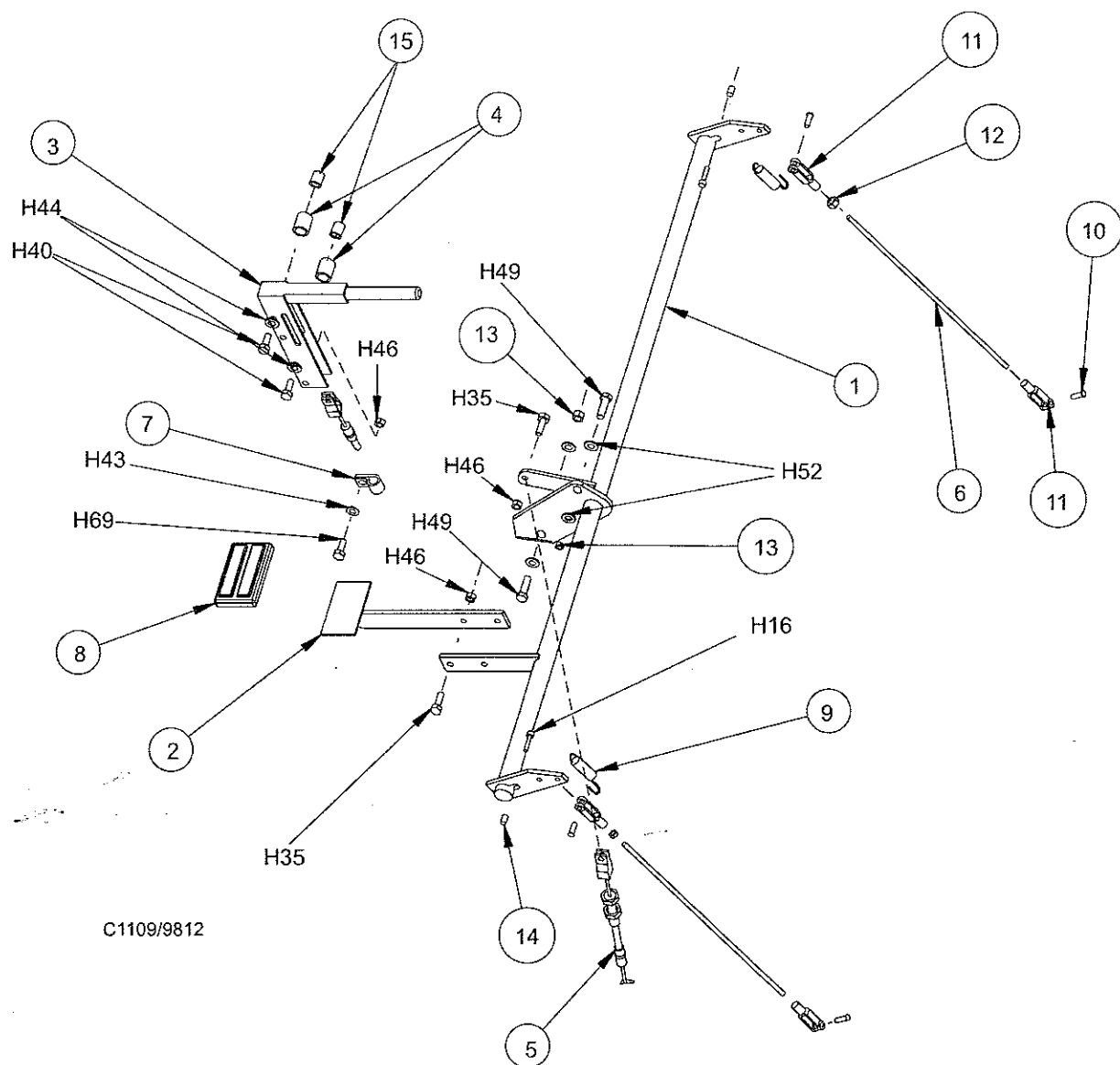
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-70-05293	Brake Cross Shaft	1
2	8-55-00033	Brake Pedal	1
3	7-41-05083	Lever, Parking Brake	1
4	8-75-01184	Spacer, Lever Mounting	2
5	8-10-00038	Cable	1
6	8-66-00154	Brake Rod	2
7	2-00-05169	Cable Clamp	1
8	7-50-05145	Pad, Pedal	1
9	7-76-00051	Spring	2
10	2-00-04909	Yoke Pin Assembly	4
11	8-14-01006	Clevis	4
12	2-95-01999	Nut, Jam	2
13	2-00-04182	Nut, Jam	3
14	2-00-05261	Threaded Insert	2
15	2-00-05330	Threaded Insert-5/16-18	2

HARDWARE USED:

H16	2-00-03051	Screw, 1/4-20 x .750 HSHC	2
H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM	3
H40	2-00-01770	Screw, 5/16-18 x 2.750 HHC	2
H43	2-00-00409	Flat Washer, .687 x .344 x .062	1
H44	2-00-00530	Lock Washer, 5/16 HS Med.	2
H46	2-00-00644	Nut, 5/16 - 18 , Insert Fiber	4
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC	3
H52	2-00-00402	Flat Washer, .750 x .390 x .094	6
H69	2-00-01255	Screw, 5/16-18 x .875 HHC	1

C1109/9812

BRAKE PEDAL - EXPLODED VIEW



HOPPER - PARTS LIST

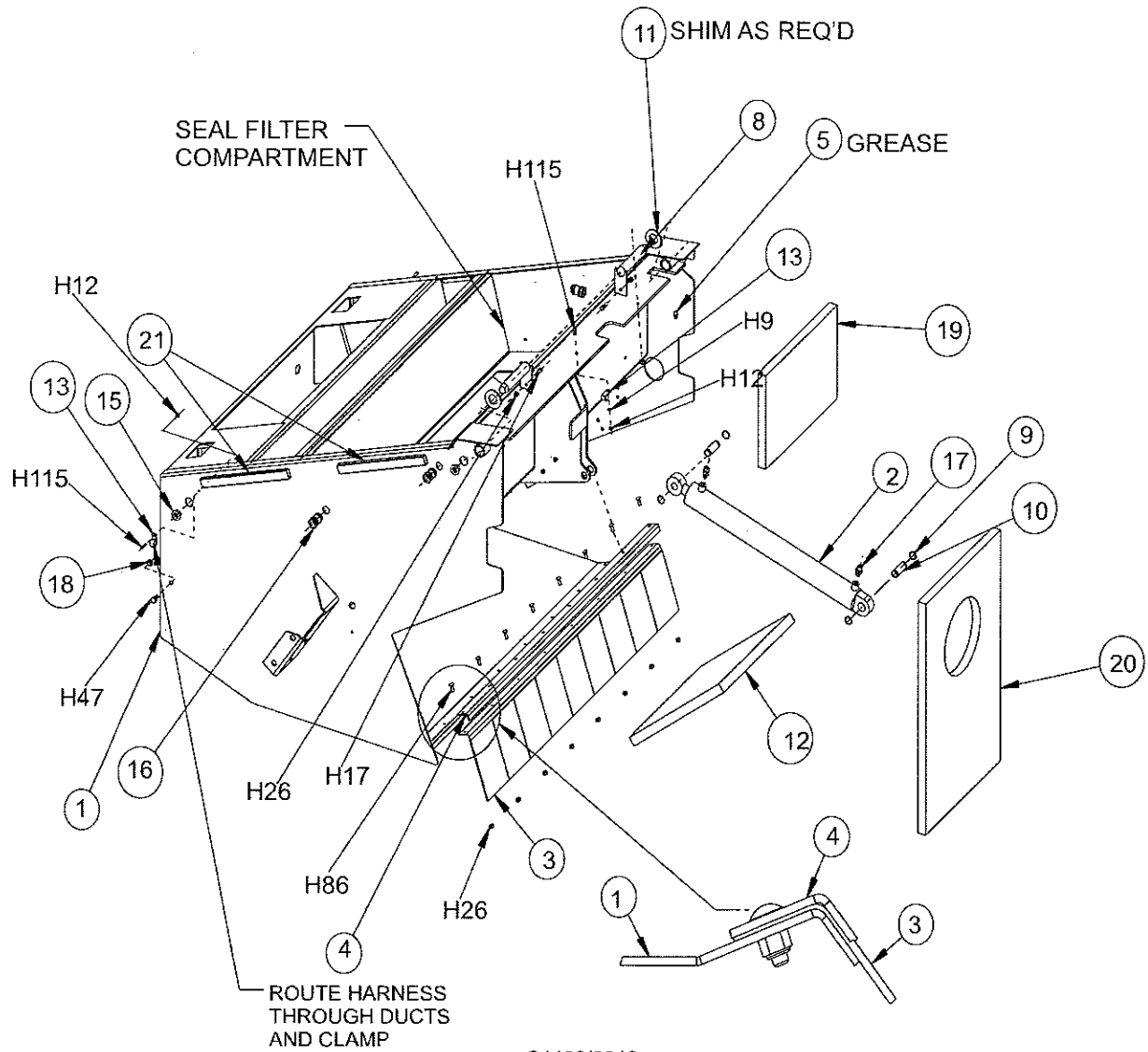
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-32-06105	Hopper	1
2	7-17-05014	Lift Cylinder	1
	0880-449	Lift Cylinder Seal Kit (Service Part)	
3	8-25-08223	Hopper Flap	1
4	8-13-07169	Clamp, Hopper Flap	1
5	2-00-00566	Grease Zerk	2
6			
7			
8	8-55-08118	Pin, Hopper Pivot	2
9	2-00-00540	Retaining Ring, .750 Ext.	4
10	8-55-08123	Pin, 3/4 Dia.	2
11	2-00-05024	Washer	2
12	8-34-09024	Insulation	1
13	2-00-04210	Clamp	3
14			
15	8-09-01082	Bushing, Star	3
16	8-09-01083	Bushing, Loc-Tite	2
17	2-00-04895	Fitting	2
18	2-95-04182	Nut, Fiber	1
19	8-34-09023	Insulation	1
20	8-34-09022	Insulation	1
21	8-20-06043	Duct Wire	2
22	2-00-05382	Hole Plug	1

HARDWARE USED:

H9	2-00-00426	Flat Washer, .500 x .219 x .063	1
H12	2-00-01246	Nut, Hex Fiber Insert #10-24	3
H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	10
H27	2-00-03702	Washer, .625 x .281 x .063	8
H47	2-00-00232	Screw, 3/8-16 x .750 HHC	1
H86	2-00-03575	Carriage Bolt, 1/4-20 x .750	8
H115	2-00-03063	Screw, #10-24 x .750 THM	3

C1403/9812

HOPPER - EXPLODED VIEW



C1403/9812

HOPPER ASSEMBLY - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	7-21-04022	Edging	1
2	8-82-00058	Switch, Door Indicator	1
3			
4	8-63-05014	Clogged Filter Switch	1
5	7-87-02155	Hose	1
6	2-00-04518	Fitting, 1/8 NPT - 1/4 Tube	1
7	8-24-04075	Filter Plug	1
8	8-20-06036	Duct Wire	1
9			
10	2-00-05253	Clamp	3
11	8-82-00050	Switch, Hopper	1
12	2-00-05261	Threaded Insert	1
13	2-00-00092	Carriage Bolt	2
14	2-00-03261	Grommet	1

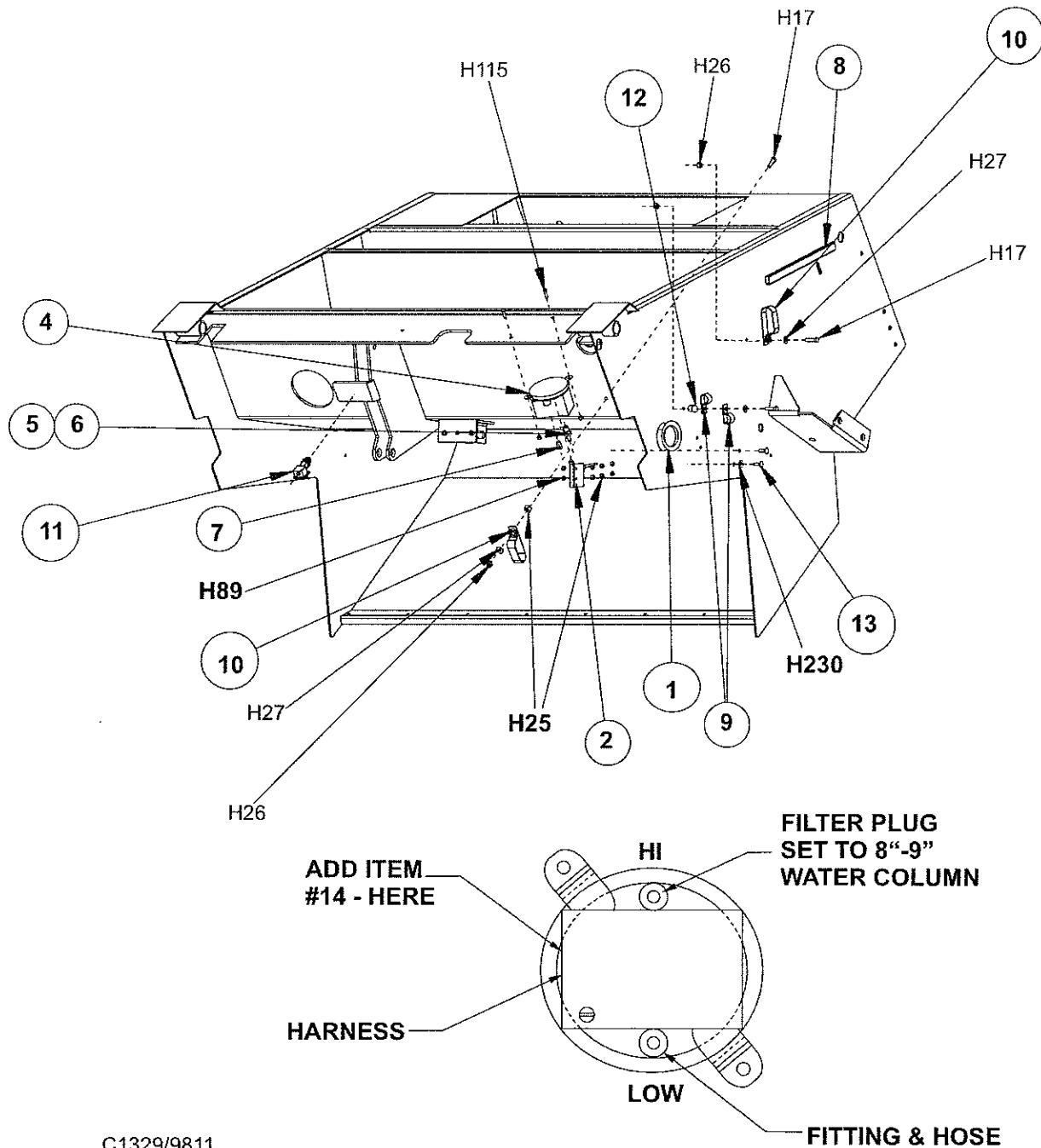
0860-635 Hopper Debris Lid Service Kit

HARDWARE USED:

H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	3
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	5
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	2
H27	2-00-03702	Washer, .625 x .281 x .063	3
H89	2-00-01372	Nut, Fiber Insert #8-32 Steel	2
H115	2-00-03063	Screw, #10-24 x .750 THM	2
H230	2-00-00466	Flat Washer, .625 x .203 x .031	4

C1329/9901

HOPPER ASSEMBLY - EXPLODED VIEW



C1329/9811

HOPPER COVER - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-16-07397	Cover Assembly (Filter)	1
2	8-16-07398	Cover Assembly (Debris)	1
3	8-08-00878	Bracket - Hinge Cover Pivot	2
4	8-29-00240	Gasket	1
5	8-29-00278	Gasket	1
6	8-29-00279	Gasket	1
7	8-41-00040	Latch	3
8	8-10-00027	Cable	1
9	2-00-00422	Flat Washer	*
10	8-16-07411	Hopper Cover - RH (Shown)	1
11	8-16-07412	Hopper Cover - LH (Not Shown)	1
12	8-08-00886	Bracket - Latch	2

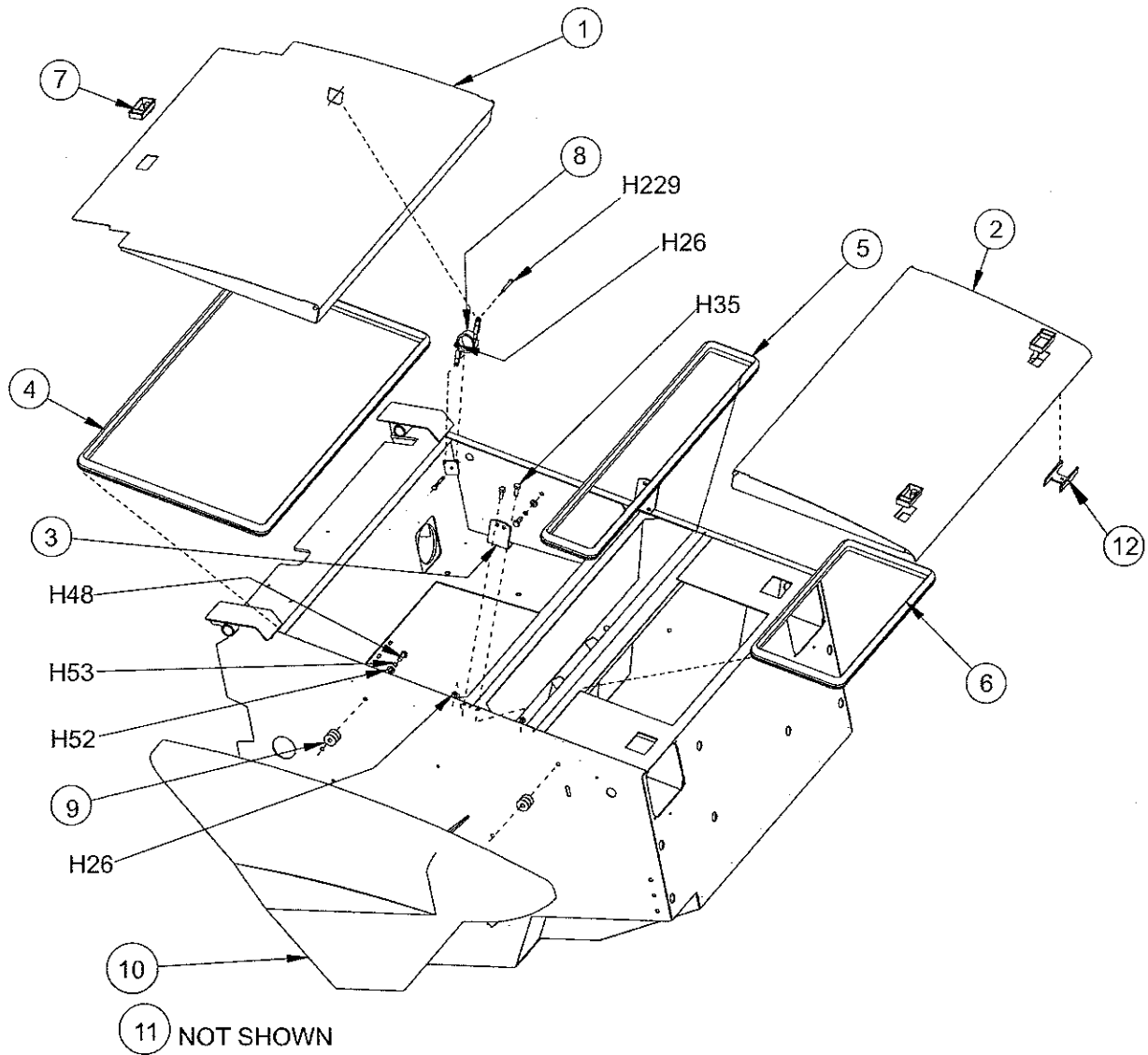
* = As Required

HARDWARE USED:

H26	2-00-00641	Nut, 1/4 - 20 Insert Fiber	6
H35	2-00-02708	Screw, 5/16 - x 1.000 HHM	4
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	6
H52	2-00-00402	Flat Washer, .750 x .390 x .094	6
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	6
H229	2-00-01490	Screw, .25 - 20 x .875 HHC, STL	2

C1644/9901

HOPPER COVER - EXPLODED VIEW



C1644/9810

DUMP DOOR - PARTS LIST

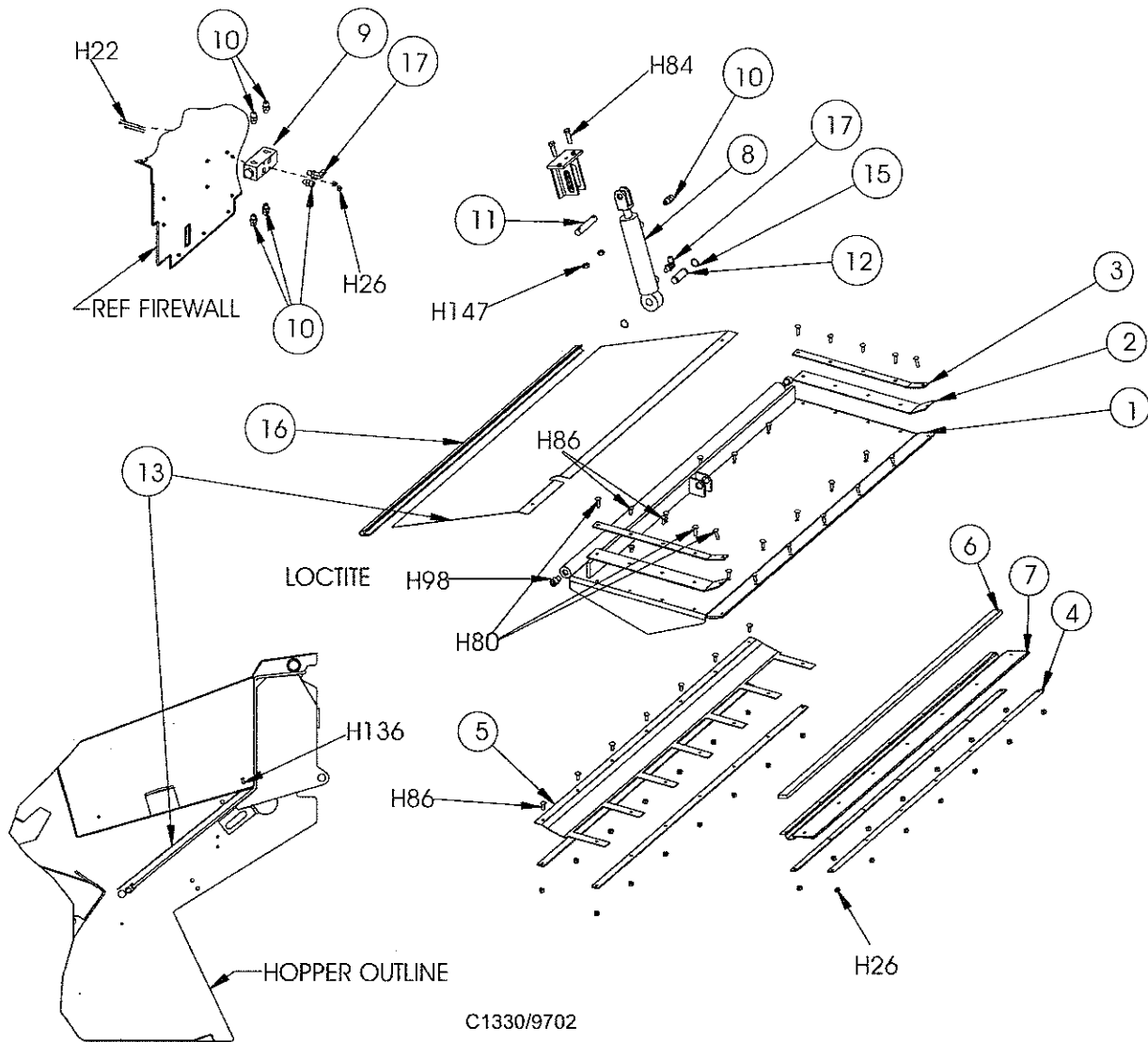
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-19-08058	Hopper Door	1
2	8-68-05075	Seal, Dump Door	2
3	8-13-07118	Clamp, Door Seal	2
4	8-13-07119	Clamp, Door Seal	4
5	8-25-08193	Flap, Door Vent	1
6	8-68-05076	Seal, Dump Door	1
7	8-68-05077	Seal, Dump Door	1
8	7-17-05011	Cylinder	1
	7-70-00021	Cylinder Seal Kit (Service Part)	
9	8-88-00064	Valve	1
10	2-00-04895	Fitting	6
11	8-55-08124	Pin, Door Cylinder	1
12	8-55-08123	Pin, 3/4 Dia.	1
13	8-52-00191	Panel, Hopper Seal	1
14			
15	2-00-00540	Retaining Ring, 3/4 Dia.	2
16	8-29-00149	Gasket, Dump Door	1
17	2-00-04892	Fitting	2

HARDWARE USED:

H22	2-00-02589	Screw, 1/4 - 20 x 2.000 HHC	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	34
H80	2-00-02196	Carriage Bolt, 1/4-20 x 1.000 RHM	6
H84	2-00-00228	Screw, 5/16-18 x 2.250 HHC	2
H86	2-00-03575	Carriage Bolt, 1/4-20 x .750	30
H98	2-00-05277	Screw, 1/2-13 x .750 HSHC	2
H136	2-00-03940	Screw, #10-24 x .500 T/C HH	2
H147	2-00-00642	Nut, Fiber Insert 5/18-18	2

C1330/9702

DUMP DOOR - EXPLODED VIEW



FILTER SHAKER - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-13-07170	Clamp, Filter	1
2	8-05-07090	Vibrator Bar	1
3	8-09-01083	Bushing	1
4	8-58-05280	Plate, Shaker	1
5	8-03-04302	Arm, Shaker	1
6	8-16-07406	Filter Shaker Motor Cover	1
7	0860-623	Filter Shaker Motor	1
8	8-89-04019	Weight	1
9	8-24-04139-1	Filter	1
	8-24-04139-2	POLY Filter Option	
10	8-13-07168	Mounting Angle, Shaker	1
11	8-41-00065	Latch	1
12	8-08-00786	Mounting Angle, Shaker	1
13	8-90-07433	Wire, Hopper Shaker	1
14	2-00-05330	Threaded Insert, 5/16 - 18	3
15	8-68-05099	Dust Seal	1
16	8-13-07172	Clamp - Vibration Bar	1

HARDWARE USED:

H26	2-00-00641	Nut, 1/4-20 Insert Fiber	8
H27	2-00-03702	Washer, .625 x .281 x .063	8
H34	2-00-00208	Screw, 5/16-18 x .750 HHC	5
H37	2-00-00207	Screw, 5/16 - 18 x 1.250 HHC	2
H44	2-00-00530	Lock Washer, 5/16 HS Med.	3
H46	2-00-00644	Nut, 5/16 - 18 Insert Fiber	2
H58	2-00-00241	Screw, 1/2 - 13 x 1.750 HHC	2
H64	2-00-00596	Nut, Hex 1/2 - 13 x .750 x .437	2
H65	2-00-04936	Nut, 1/2 - 13 Fiber Lock	2
H81	2-00-05276	Screw, 3/8 - 16 x 5.500	1
H86	2-00-03575	Carriage Bolt, 1/4-20 x .750	8
H87	2-00-00263	Set Screw, 1/4-20 x .250 HSKCP	1
H219	2-00-05359	Nut, Serrated Flange 5/16 - 18	4

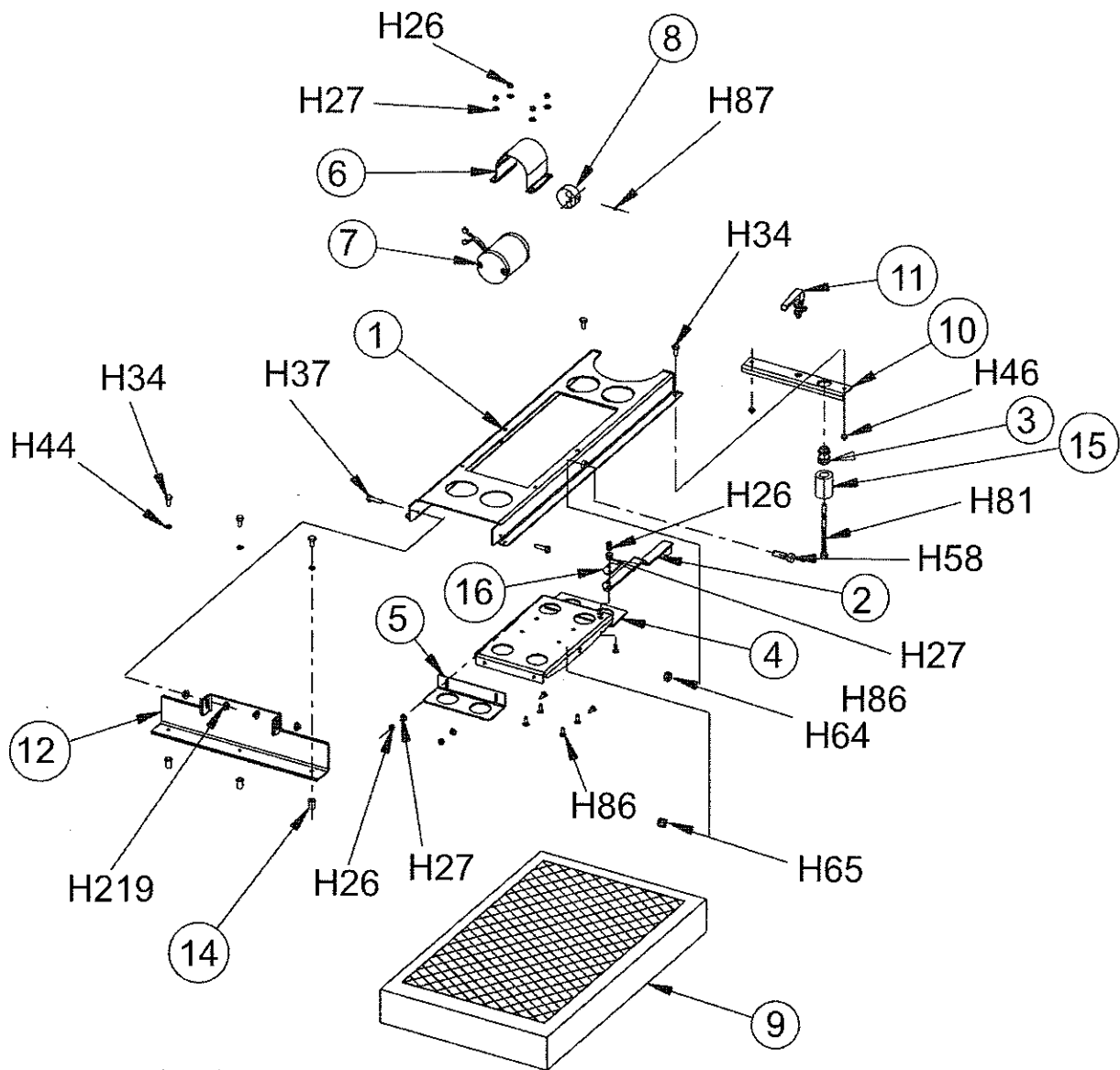
FRAME AND SHAKER ADJUSTMENT INSTRUCTIONS:

1. ADJUST FRAME TO FILTER-ADJUST FILTER FRAME PIVOT BOLTS AND PAWL OF FILTER FRAME LATCH SUCH THAT FILTER GASKET COMPRESSES APPROXIMATELY 1/8 INCH.
2. ADJUST SHAKER TO FILTER-ADJUST SHAKER ARM (8-03-04302) SUCH THAT IT AND SHAKER PLATE (8-58-05280) FORCE FILTER SCREEN TO CONTACT FILTER MEDIA.

NOTE: DO NOT COMPRESS FILTER MEDIA WITH SHAKER

C1404/9812

FILTER SHAKER - EXPLODED VIEW



C1404/9906

FRONT WHEEL - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	0860-571	Brake	2
	8-71-05007	Brake Shoe (Service Part)	
2	8-89-08067	Wheel, Pneumatic - 18.5"	2
	8-85-06021	Tire (Service Part)	
	8-70-00085	Tube (Service Part)	
	8-70-00080	Rim (Service Part)	
3	8-11-00030	Grease Cap	2
4	8-33-09089	Hub and Drum	2
5	8-80-05035	Stud	10
6	2-00-04621	Bearing Cup	4
7	2-00-02079	Bearing Cone (Sealed)	2
8	2-00-04622	Bearing Cone	2
9	2-00-05026	Nut, Slotted Hex 1-14 UNF	2
10	2-00-05024	Flat Washer	2
11	2-00-02436	Cotter Pin	2
12	2-00-03797	Flat Washer	*

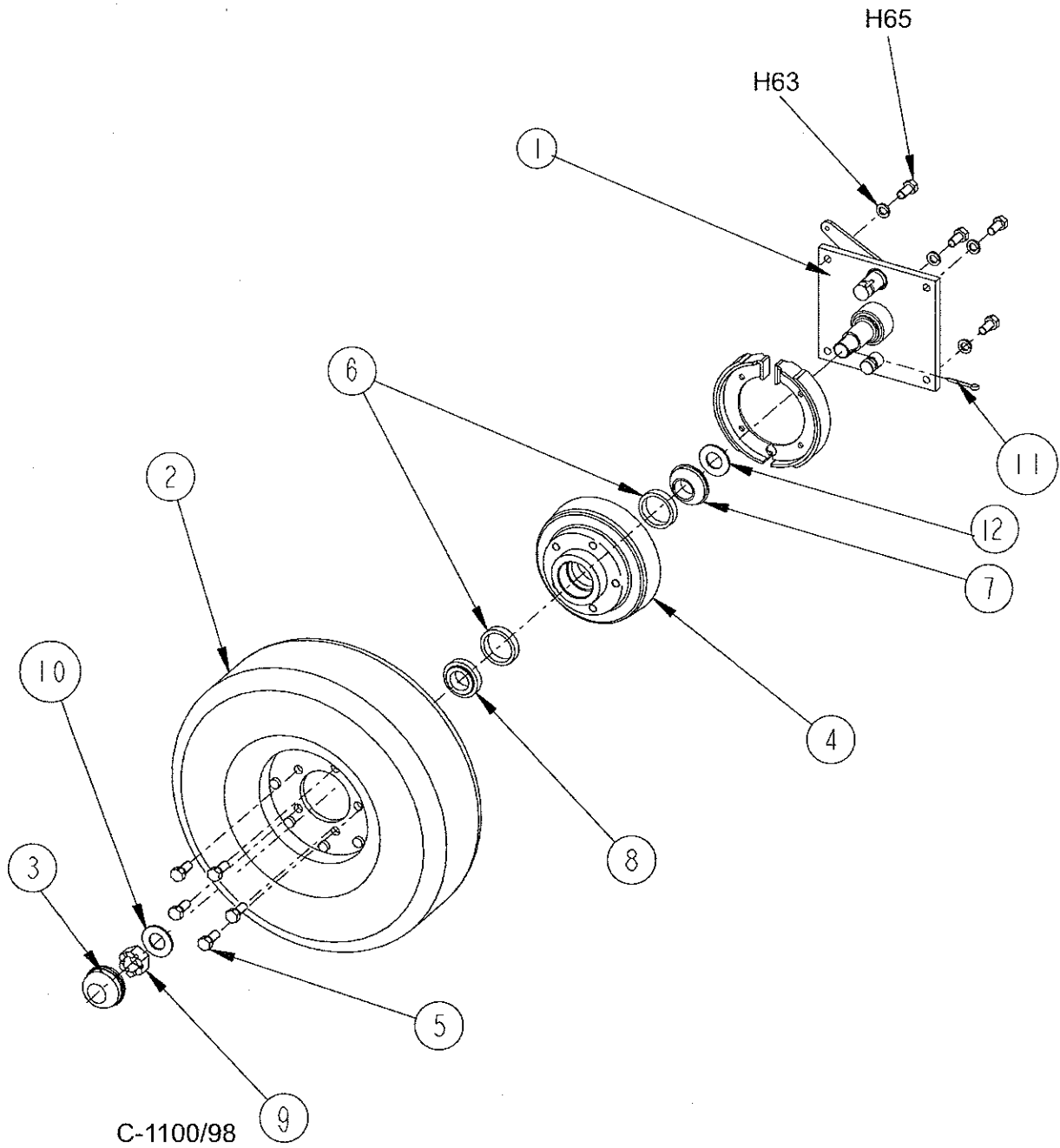
* AS NEEDED

HARDWARE USED:

H63	2-00-02312	Lock Washer, 1/2 HS Med.	8
H66	2-00-02689	Screw, 1/2-20 x 1.000 HHC	8

C1100

FRONT WHEEL - EXPLODED VIEW



REAR WHEEL - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-92-00040	Yoke, Rear Wheel	1
2	0885-083	Hydraulic Motor, 4000 Series	1
	0880-237	Hydraulic Motor Seal Kit (Service Part)	
3	2-00-04621	Bearing, Outer Race (Cup Only)	2
4	2-00-02079	Bearing, Roller	2
5	7-11-00048	Cap, 7/8 Hex Nut	1
6	8-55-08131	Pivot Pin, Rear Wheel	1
7	2-00-02436	Cotter Pin	1
8	2-00-05026	Nut, Slotted Hex 1-14 UNF	1
9	2-00-05024	Flat Washer	1
10	8-89-08068	Wheel Assembly	1
	8-85-06021	Tire (Service Part)	
	8-70-00085	Tube (Service Part)	
	7-70-00021	Hydraulic Cylinder Seal Kit (Service Part)	
	0880-238	Shaft Seal Kit (Service Part)	
11	8-65-00045	Retainer, Hydraulic Hose	1
12	7-17-05017	Hydraulic Cylinder	1
13	8-66-00149	Rod End	1
14	2-00-00566	Grease Zerk	1
15			
16	2-00-00776	Cotter Pin, .12 diameter	1
17	2-00-04895	Fitting, Straight	1
18	2-00-04976	Fitting, 45°	2
19	2-00-04979	Fitting, Straight	2
20	8-30-05175	Guard - Hose	1
21	7-13-07176	Clamp - Pivot Pin	1

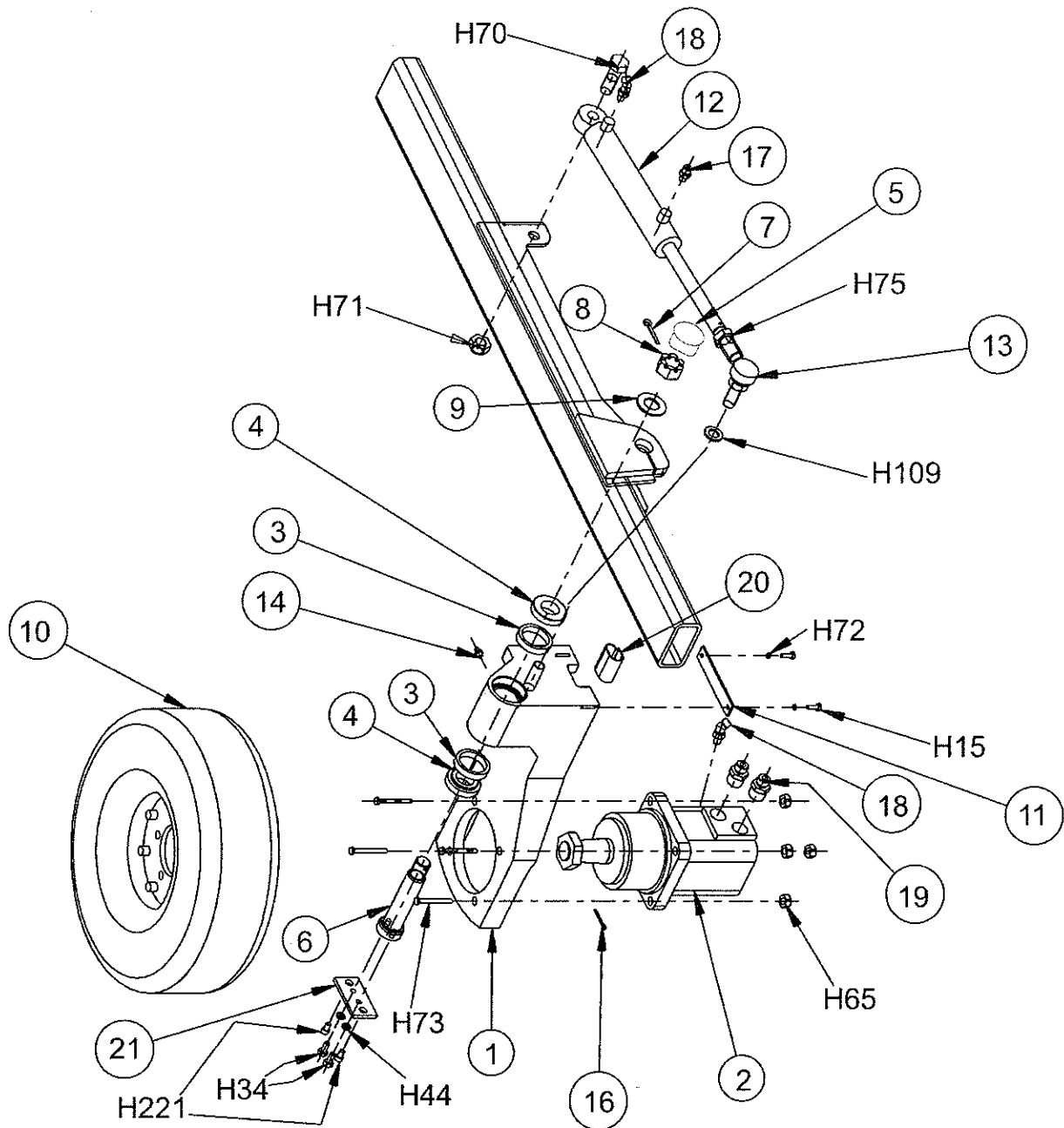
0860-639 Service Kit- Wheel Mount

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	2
H34	2-00-00208	Screw, 5/16 - 18 x 7.50 HHC	2
H44	2-00-00530	Lock Washer, 5/16 HS Med.	2
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	4
H70	2-00-05254	Screw, 3/4-10 x 2.250 HHC	1
H71	2-00-05255	Nut, 3/4-10 Nylon Lock	1
H72	2-00-00518	Lock Washer, Helical Spring	2
H73	2-00-00247	Screw, 1/2-13 x 2.500 HHC	4
H75	2-00-00618	Nut, Hex Jam 3/8-16	1
H109	2-00-00522	Lock Washer, 3/4 Helical Spring	1
H221	2-00-03335	Screw, 5/16-18 x .500 Hex Soc. Cap	2

C1311a/0703

REAR WHEEL - EXPLODED VIEW



C1311A/0703

STEERING COLUMN - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-60-05034	Steering Control Unit	1
2	8-89-08016	Steering Wheel	1
3	8-58-05270	Plate, Latch	1
4	8-33-05136	Steering, Housing	1
5	8-41-00050	Latch, Tilt Steering	1
6	8-08-00780	Housing, Mounting Bracket	2
7	7-09-01057	Bushing	1
8	8-31-06083	Grip, Latch	1
9	8-76-00042	Spring, Tension	1
10	2-10-01336	Spring, Compression	1
11	8-11-00022	Cap	1
12	2-95-04182	Stop Nut, Elastic	1
13	8-33-02360	Hose, Heat Shield	1

HARDWARE USED:

H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	4
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	1
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H27	2-00-03702	Washer, .625 x .281 x .063	2
H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM	1
H44	2-00-00530	Lock Washer, 5/16 HS Med.	4
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	5
H52	2-00-00402	Flat Washer, .750 x .390 x .94	4
H69	2-00-01255	Screw, 5/16-18 x .875 HHC	4
H94	2-00-00410	Flat Washer, .875 x .375 x .060	2
H95	2-00-03382	Spring Washer, .875 x .500 x .015	1
H96	2-00-02605	Screw, 3/8-16 x 4.500 HHC, Cadum Pl	1
H154	2-00-04363	Screw, M8 - 1.250 x .750	4

C1605/9812

This exploded view diagram illustrates the assembly of a car stereo unit. The main components are labeled with circled numbers and alphanumeric codes:

- 1**: The central stereo unit.
- 2**: A circular speaker or tweeter component.
- 3**: A rectangular component, likely a subwoofer or amplifier module.
- 4**: A mounting bracket or plate.
- 5**: A curved mounting bracket.
- 6**: A small mounting bracket.
- 7**: A small screw or fastener.
- 8**: A small cylindrical component.
- 9**: A small screw or fastener.
- 10**: A coiled cable or hose.
- 11**: A small circular cap or plug.
- 12**: A small screw or fastener.
- 13**: A cylindrical component, possibly a filter or connector.

Assembly points and specific fasteners are indicated by alphanumeric codes:

- H154**, **H44**, **H46**, **H69**, **H94**, **H17**, **H25**, **H26**, **H27**, **H35**, **H46**, **H52**, **H95**, **H96**: Specific screws, bolts, or fasteners used for assembly.

The diagram uses dashed lines to show the alignment and assembly sequence of the various parts.

C1605/9810

American-Lincoln MPV 60	2-29
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BROOM DOOR - PARTS LIST

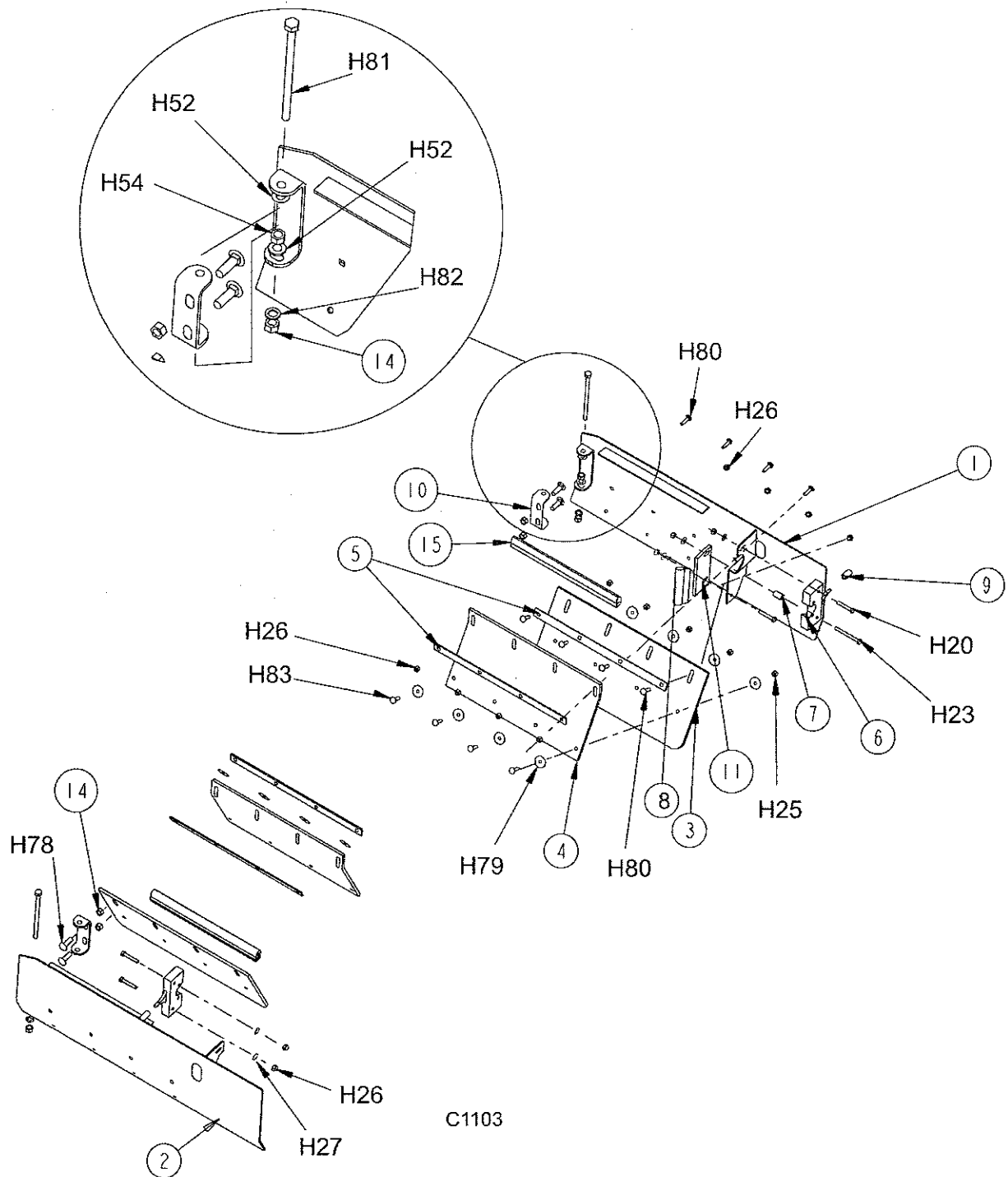
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-19-08060	Broom Door Weldment (Right)	1
2	8-19-08059	Broom Door Weldment (Left)	1
3	8-25-08222	Flap, Broom Door (Outer)	2
4	8-25-08198	Flap, Broom Door (Inner)	2
5	8-13-07116	Clamp, Broom Door Flap	4
6	8-41-00052	Latch	2
7	8-75-01199	Spacer, Broom Door Latch	1
8	8-29-00232	Gasket	1
9	8-39-00015	Latch Knob, Broom Door	2
10	8-57-05024	Door Pivot Bracket	2
11	8-58-05271	Plate, Idler Retainer	1
12			
13			
14	2-95-04182	Nut, Fiber	6
15	8-29-00235	Edging	2

HARDWARE USED:

H20	2-00-00203	Screw, 1/4-20 x 1.500 HHC	4
H23	2-00-01980	Screw, 1/4-20 x 2.500 HHC	1
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	8
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	21
H27	2-00-03702	Washer, .625 x .281 x .063	5
H52	2-00-00402	Flat Washer, .750 x .390 x .094	4
H54	2-00-02360	Nut, 3/8-16 Hex.	2
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250	4
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062	16
H80	2-00-02196	Carriage Bolt, 1/4-20 x 1.000 RHM	16
H81	2-00-05276	Screw, 3/8-16 x 5.500	2
H82	2-00-00505	Lock Washer, 3/8 Int. Tooth	2
H83	2-00-04877	Screw, 1/4-20 x 1.000 BHS	8

C1103/9812

BROOM DOOR - EXPLODED VIEW



FORWARD/REVERSE CONTROL - PARTS LIST

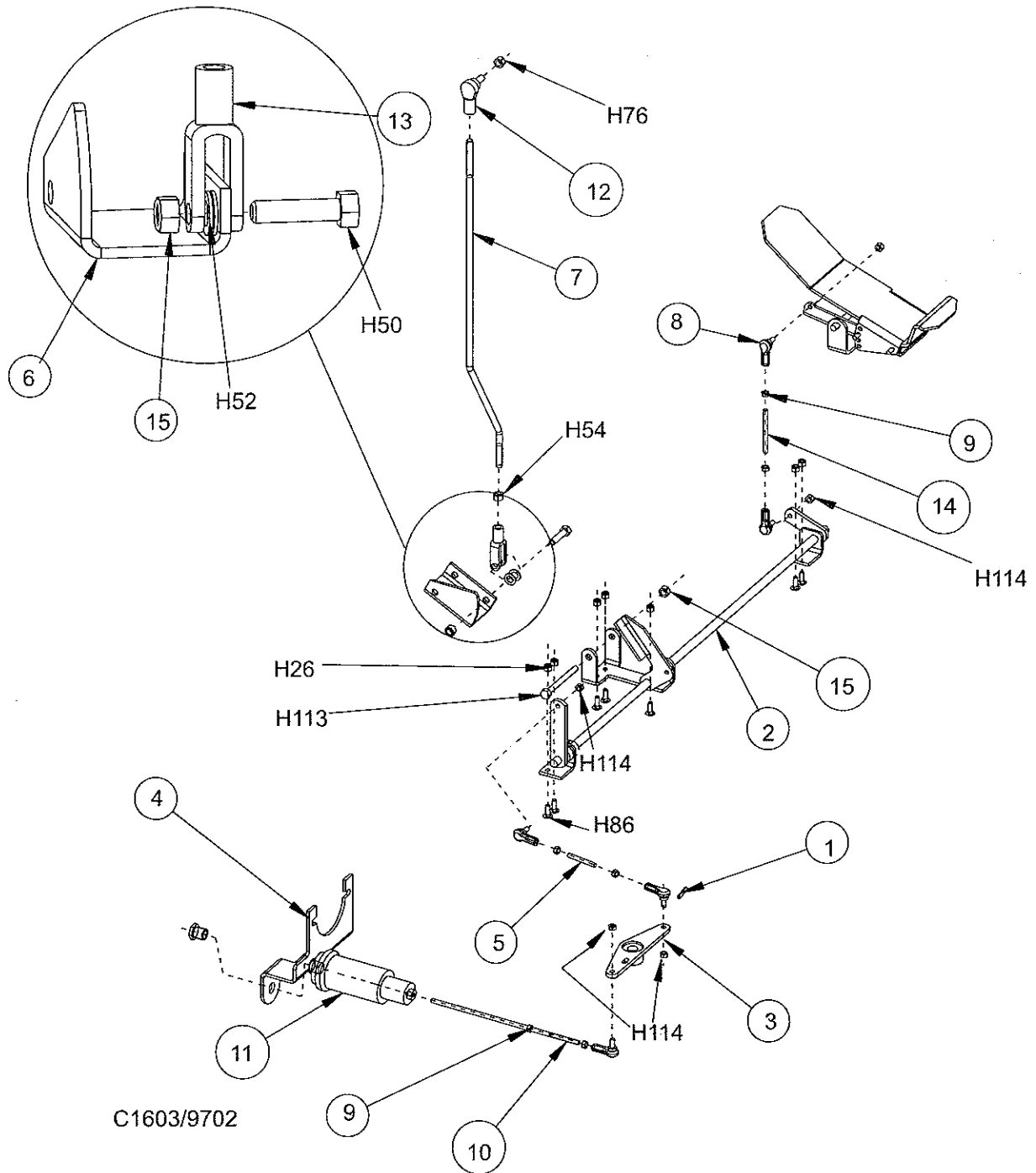
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	2-00-00880	Roll Pin	1
2	8-70-05294	Forward/Reverse Shaft	1
3	8-03-04300	Arm, Pump Control	1
4	8-08-00877	Bracket, Hydroback	1
5	8-66-00169	Rod, 1/4-28 Threaded	1
6	8-03-04306	Arm, Speed Limiter	1
7	8-66-00172	Rod, Speed Limiter	1
8	7-25-02050	Rod End	5
9	2-95-01999	Nut, Jam	6
10	8-66-00189	Rod, Threaded	1
11	8-16-00063	Centering Control	1
12	8-66-00173	Rod End	1
13	8-14-01001	Clevis	1
14	8-66-00179	Rod, Threaded, 1/4-28 x 2.50	1
15	2-95-04182	Nut, Fiber	2

HARDWARE USED:

H26	2-00-00641	Nut, 1/4-20 Insert Fiber	7
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC	1
H52	2-00-00402	Flat Washer, .750 x .390 x .094	2
H54	2-00-02360	Nut, 3/8-16 Hex.	1
H76	2-00-00632	Nut, Fiber Insert 3/8-24 Steel	1
H86	2-00-03575	Carriage Bolt, 1/4-20 x .750	7
H113	2-00-03333	Screw, 3/8-16 x 3.750 HHC	1
H114	2-00-00633	Nut, Fiber 1/4-28	5

C1603/9901

FORWARD/REVERSE CONTROL - EXPLODED VIEW



ADJUSTABLE FOOT PEDAL - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-55-00034	Adjustable Foot Pedal	1
2	8-55-00035	Pedal Base	1
3	8-08-00782	Bracket	1
4	2-00-05246	Pin	1
5	2-00-05247	Pin	2
6	2-00-05249	Cotter Pin	3
7	7-23-03048	Spring Washer	*

* AS NEEDED

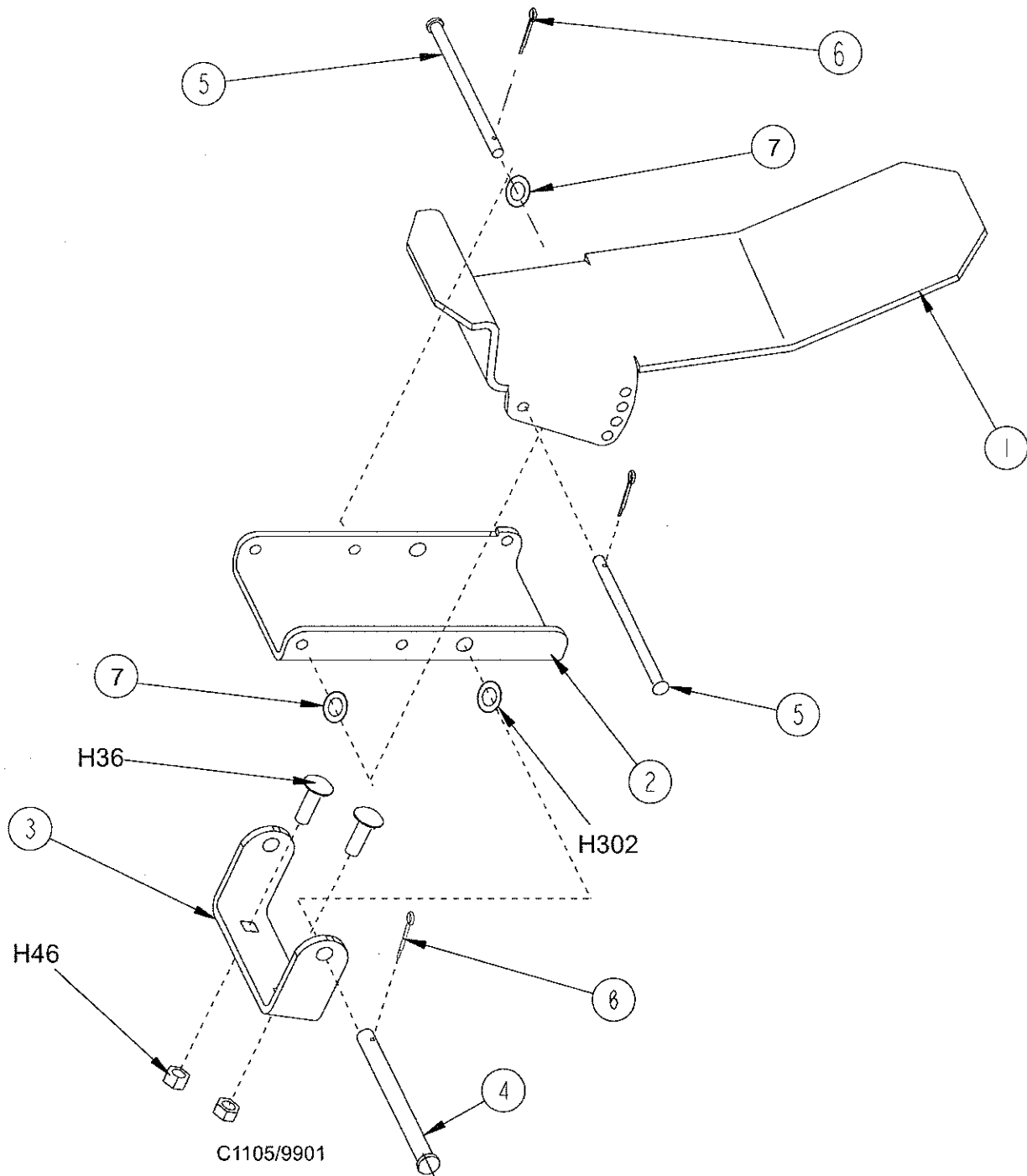
HARDWARE USED:

H36	2-00-00196	Carriage Bolt, 5/16-18 x 1.000	2
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	2
H302*	2-00-00490	Washer, Spring, Shakeproof	1

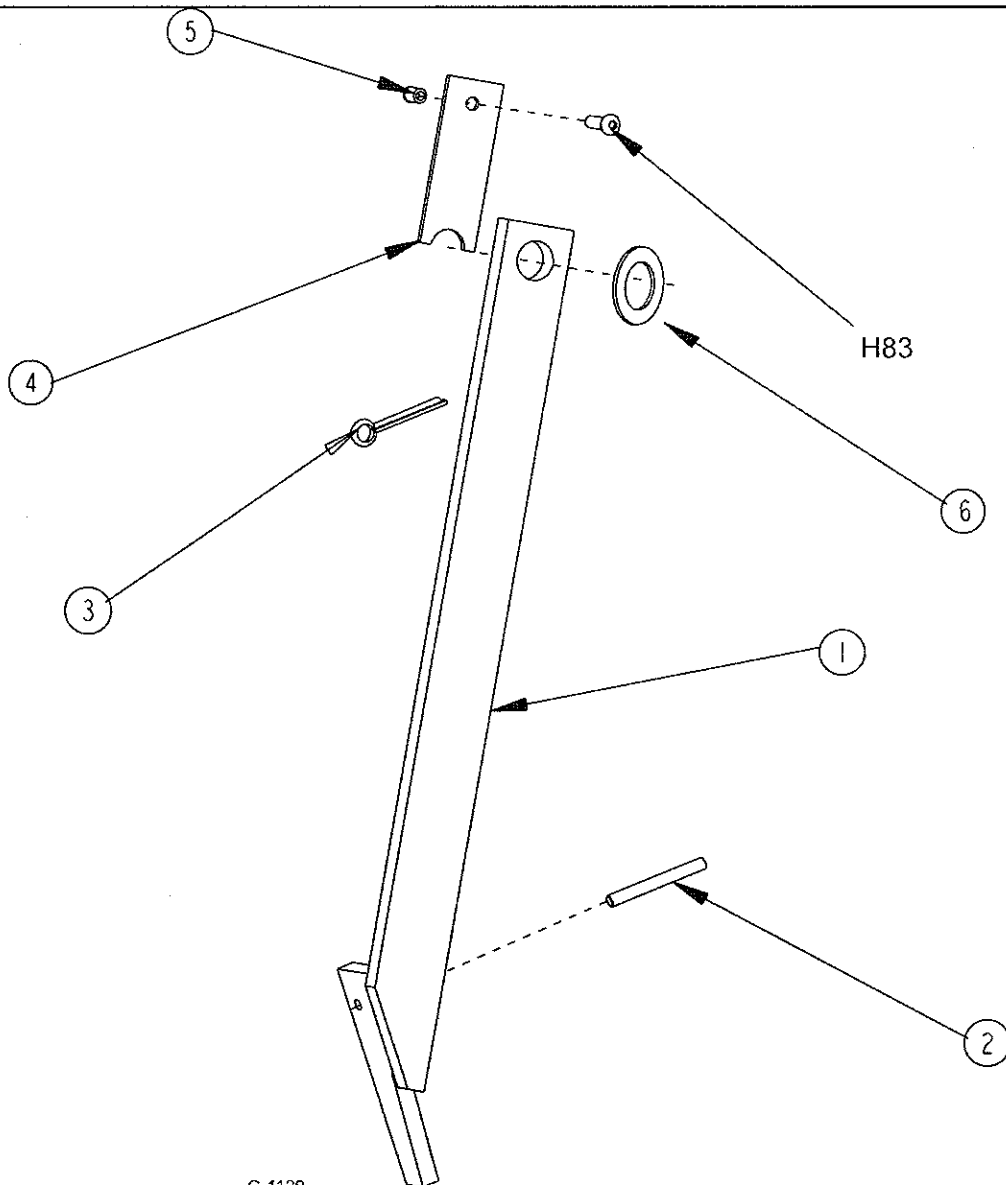
* DIESEL ONLY

C1105/9901

ADJUSTABLE FOOT PEDAL - EXPLODED VIEW



SAFETY ARM

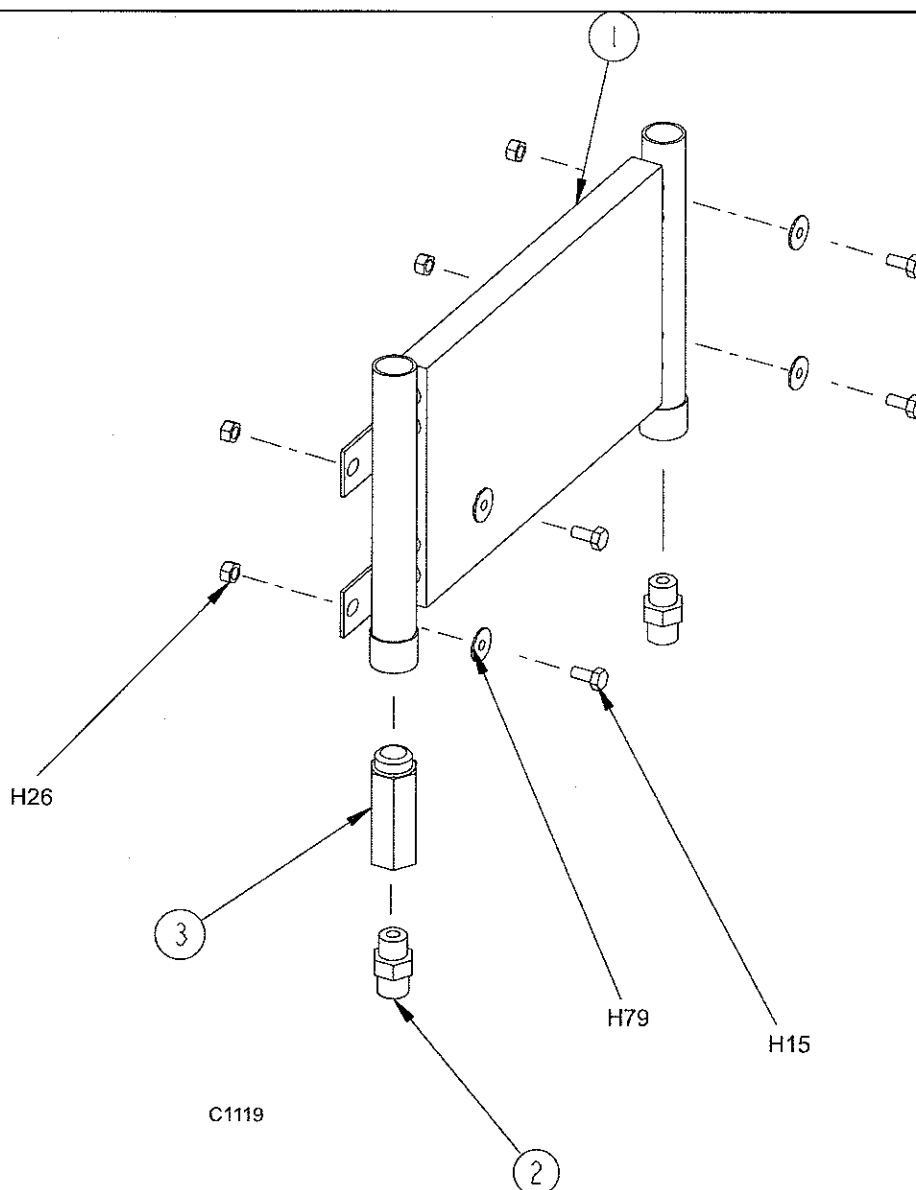


C-1129

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-81-00168	Safety Arm Weldment	1
2			
3	2-00-02436	Cotter Pin	1
4	8-71-00018	Shim	1
5	2-00-05261	Threaded Insert	1
6	2-00-00432	Flat Washer	1
HARDWARE USED:			
H83	2-00-04877	Screw, 1/4-20 x 1.000 BHS	1

C1129

OIL COOLER



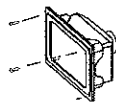
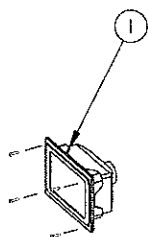
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-62-01012	Oil Cooler	1
2	2-00-04973	Fitting	2
3	8-88-00059	Check Valve, 5 psi	1

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	4
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062	4

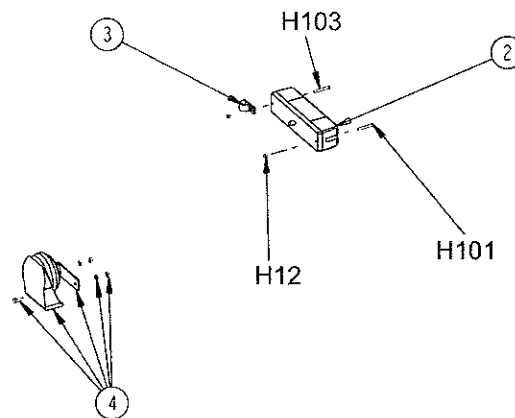
C1119

LIGHTS & HORN ELECTRICAL



H102

C1115



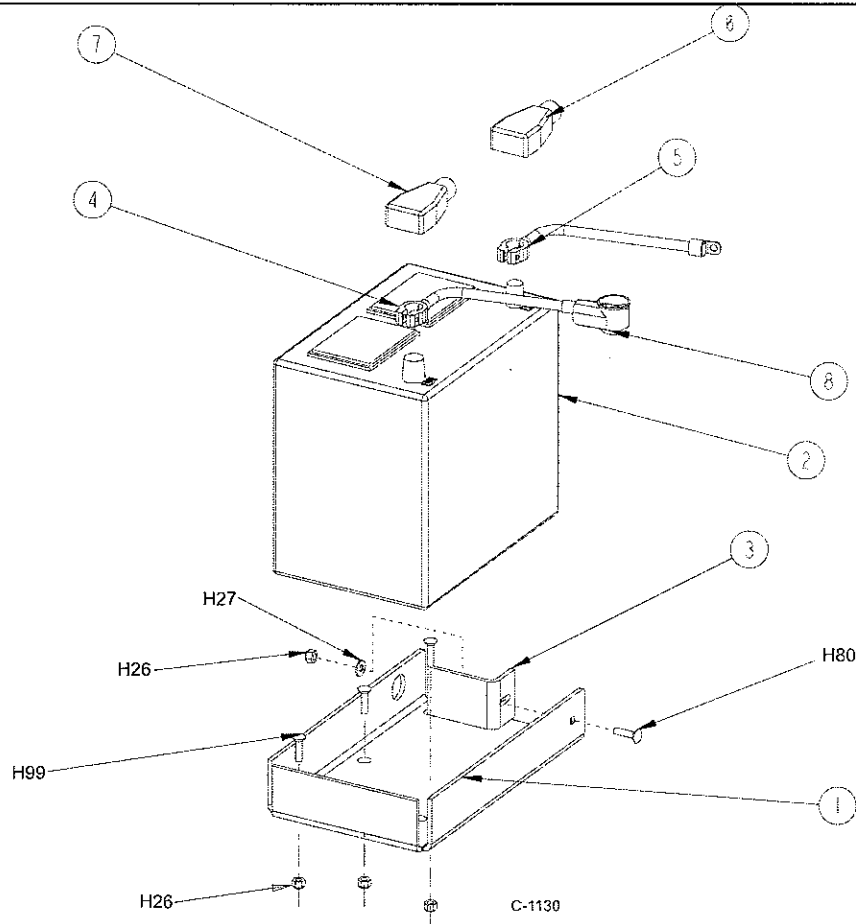
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-40-05051	Head Light	2
	8-40-05050	Head Light Sealed Beam (Service Part)	
2	8-40-05044	Tail Light	1
	2-00-05291	Bulb, Tail Light (Service Part)	
	8-41-03010	Lens, Tail Light, Center (Service Part)	
	8-41-03011	Lens, Tail Light, Outer (Service Part)	
3	2-00-04210	Clamp	1
4	8-32-09013	Horn	1

HARDWARE USED:

H12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
H101	2-00-04897	Screw, #10-24 x 1.250 THM	1
H102	2-00-04795	Screw, #10-24 x .750 BHS	8
H103	2-00-00089	Screw, 10-24 x 1.500 RHM	1

C1115/9812

ELECTRICAL ASSEMBLY (BATTERY)



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-08-00792	Battery Bracket	1
2	0875-008	Battery	1
2 ^A	0875-057	Battery (Diesel)	1
3	7-13-07109	Battery Bracket	1
4	7-90-07280	Cable, Positive	1
5	7-90-07281	Cable, Negative	1
6	2-00-05171	Boot, Black	1
7	2-00-05173	Boot, Red	1
8	2-00-04952	Boot, Red	1

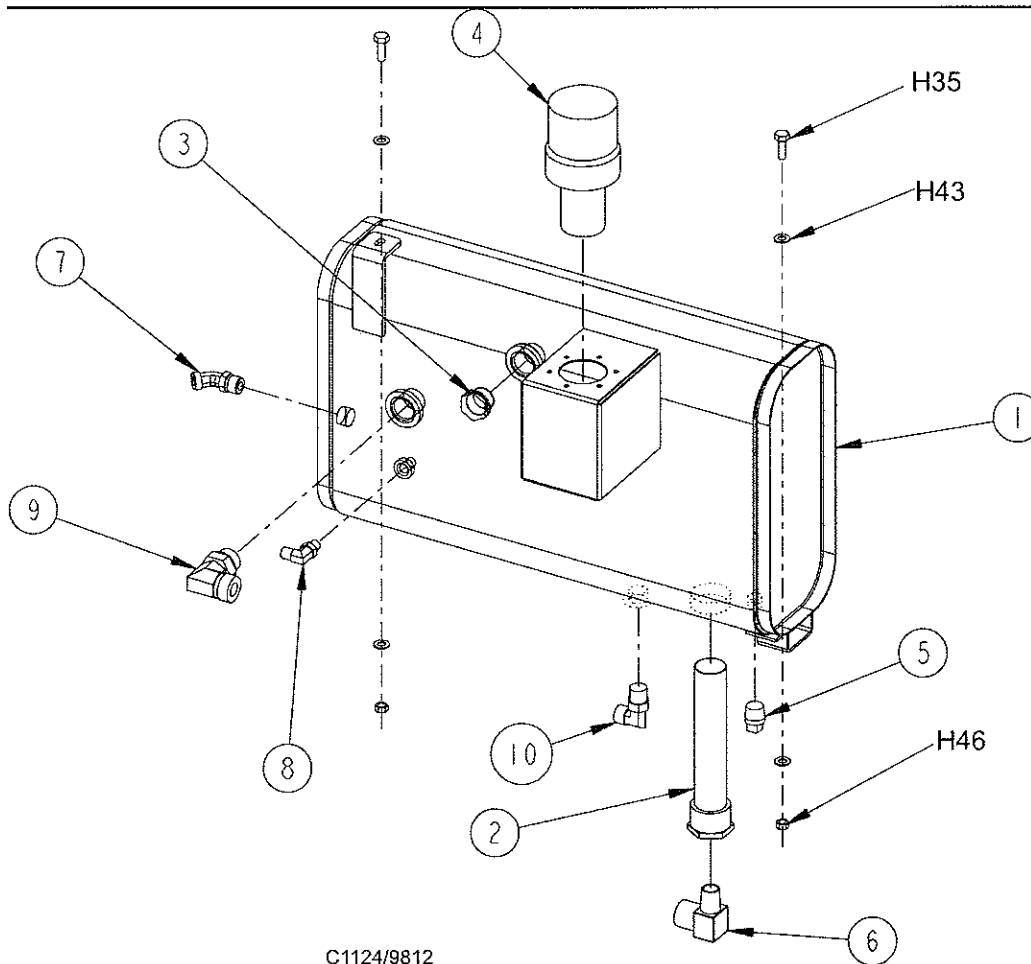
HARDWARE USED:

H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H27	2-00-03702	Washer, .625 x .281 x .063	1
H80	2-00-02196	Carriage Bolt, 1/4-20 x 1.000 RHM	1
H99	2-00-02810	Screw, 1/4-20 x 1.000 FHM	3

^A=USED ON DIESEL MACHINES ONLY

C1130/9901

RESERVOIR



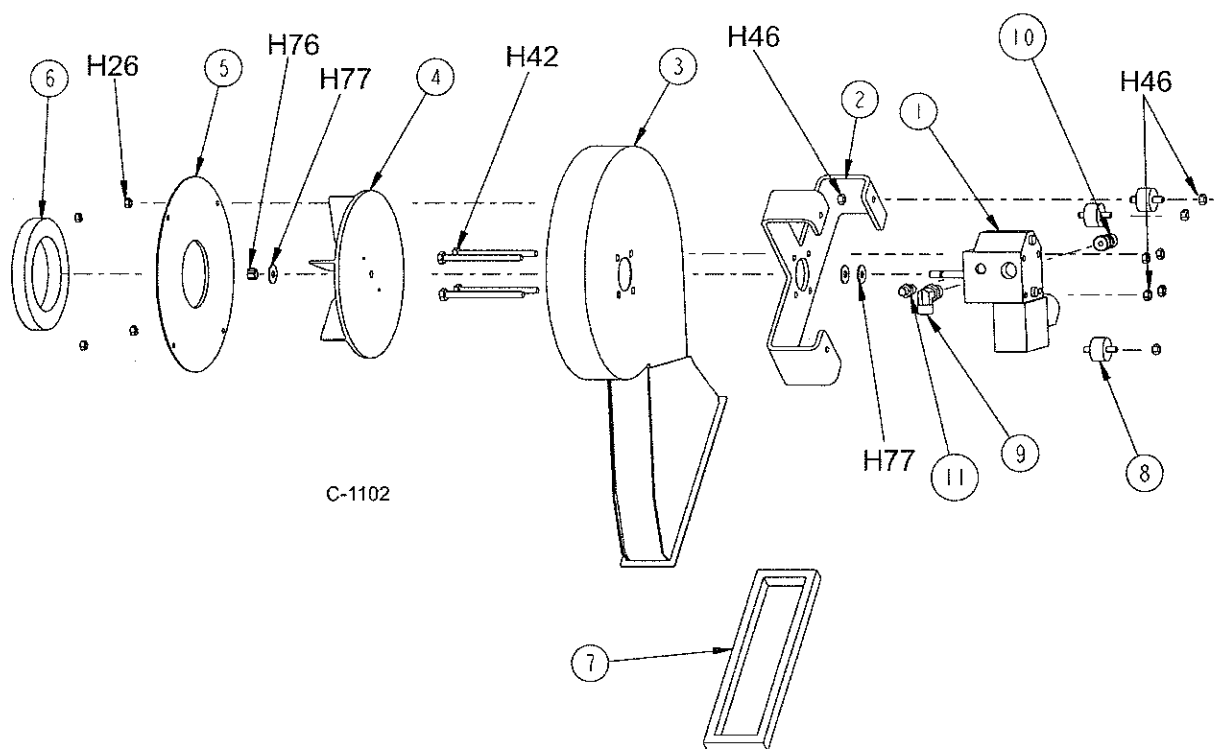
C1124/9812

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-83-04041	Reservoir	1
2	8-24-04115	Strainer	1
3	8-48-05033	Sight Gauge	1
4	8-11-00026	Filler Cap Assembly	1
5	2-00-02474	Plug	1
6	2-00-05074	Fitting, 90° Street Elbow	1
7	2-00-04975	Fitting, Connector	1
8	2-00-04892	Fitting, 90° Elbow	1
9	2-00-04972	Fitting, 90° Elbow	1
10	2-00-04885	Fitting, 90° Elbow	1

HARDWARE USED:

H35	2-00-02708	Screw, 5/16-18 x 1.000 HHM	2
H43	2-00-00409	Flat Washer, .687 x .344 x .062	4
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	2

C1124/9812



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	0882-064	Vacuum Motor	1
2	8-08-00787	Bracket, Vacuum Fan	1
3	8-20-06035	Vacuum Fan Exhaust Duct	1
4	8-23-00012	Fan Impellor	1
5	8-30-05169	Guard, Impellor	1
6	8-29-00183	Gasket, Blower	1
7	8-29-00230	Gasket, Blower Exhaust	1
8	8-50-05037	Radiator Mount Pad	3
9	2-00-04885	Fitting, 90°	1
10	2-00-04970	Fitting, Straight	1
11	2-00-04895	Fitting, Straight	1
12	0875-117	Diode Assembly	1

HARDWARE USED:

H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H42	2-00-02655	Screw, 5/16-18 x 4.500 HHC	4
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	10
H76	2-00-00632	Nut, Fiber Insert 3/8-24 Steel	1
H77	2-00-00484	Flat Washer, .625 x .375 x .046	3

C1102/9908

FLAPS (WHEEL WELL) - PARTS LIST

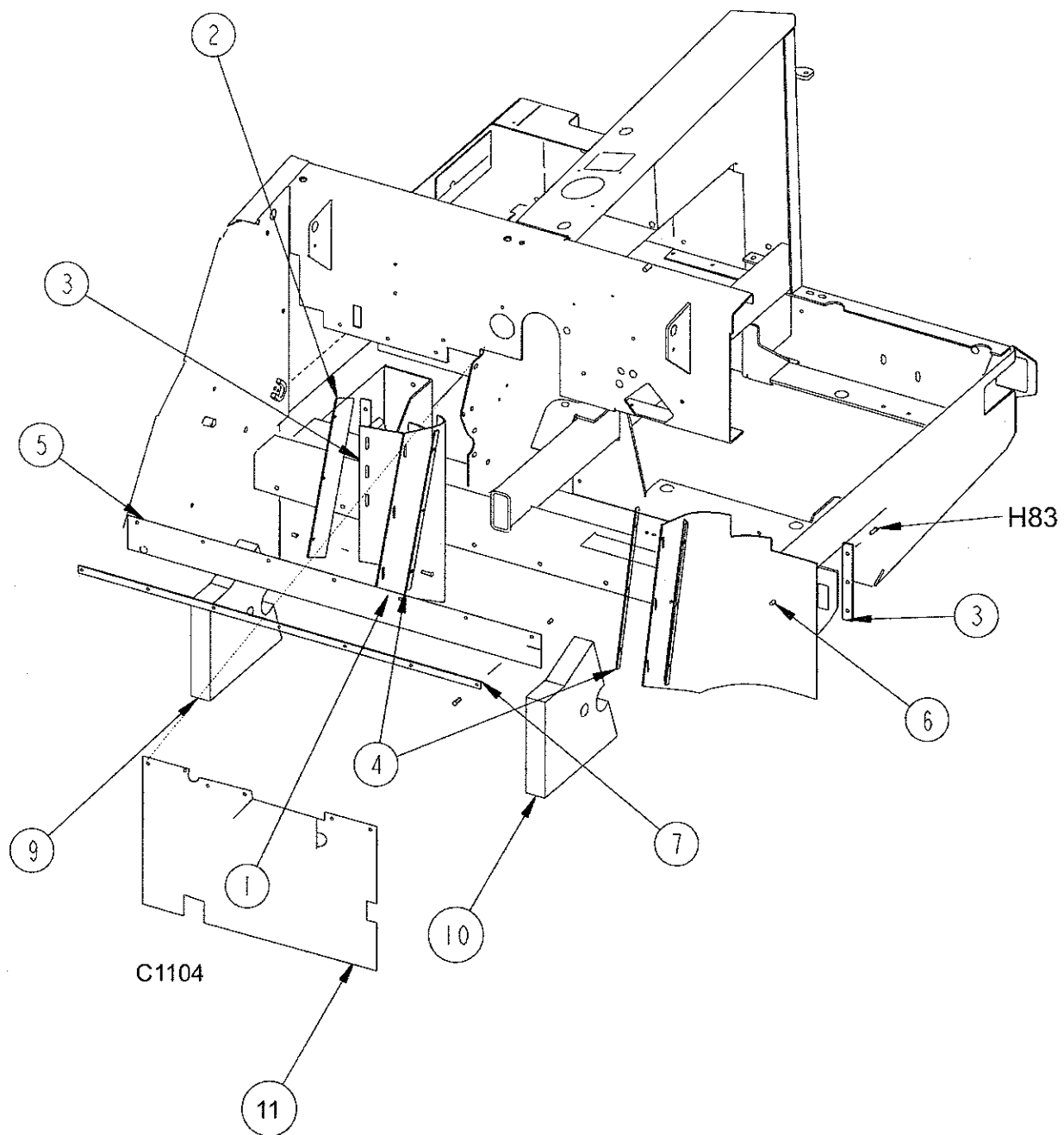
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-25-08194	Flap, Wheel Well	2
2	8-13-07113	Clamp, Wheel Well Flap, Front	2
3	8-13-07112	Clamp, Wheel Well Flap, Rear	2
4	8-13-07123	Clamp, Wheel Well Flap, Front	2
5	8-68-05078	Seal, Broom Door Chamber/Dump Door	1
6	2-00-05261	Threaded Insert	19
7	8-13-07119	Clamp, Dump Door Seal	1
8			
9	8-68-05079	Seal, Wheel Well, Right	1
10	8-68-05080	Seal, Wheel Well, Left	1

HARDWARE USED:

H83	2-00-04877	Screw, 1/4-20 x 1.000 BHS	19
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C1104

FLAPS (WHEEL WELL) - EXPLODED VIEW



BROOM CHAMBER FLAPS & SEALS - PARTS LIST

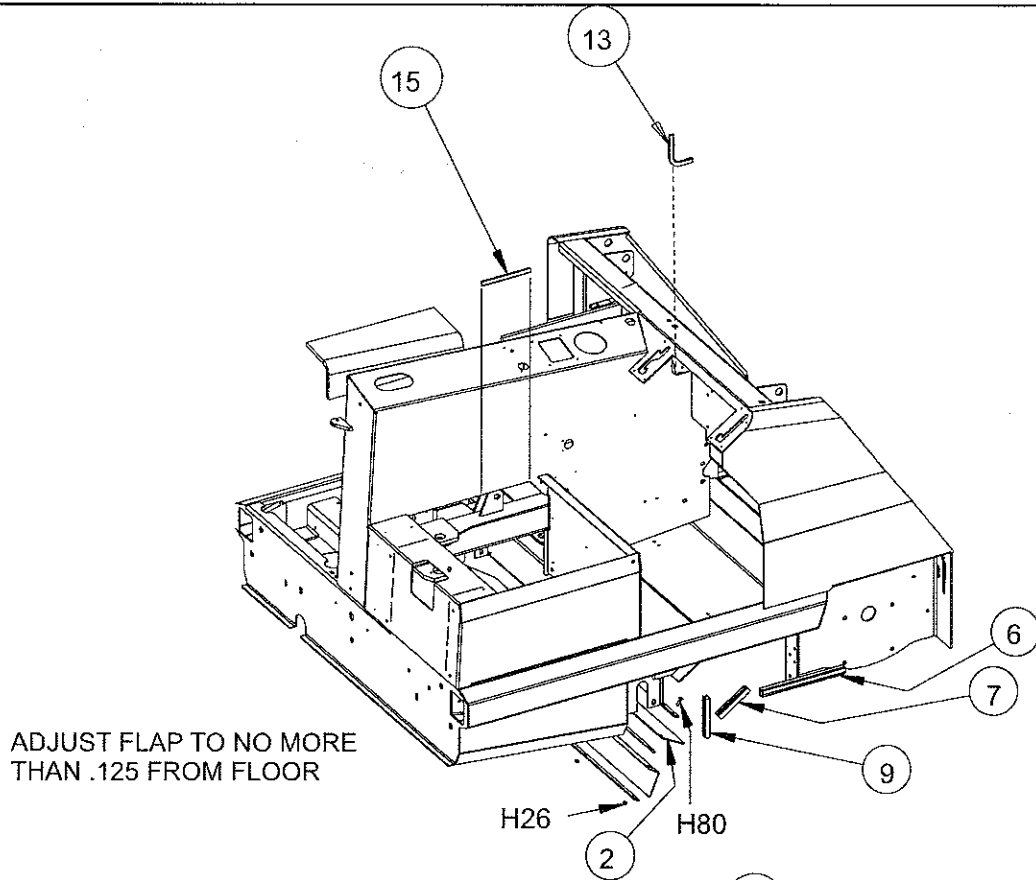
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-27-07119	Frame, Weldment	1
2	8-25-08197	Flap, Rear Inside Frame	1
3	8-13-07114	Clamp, Rear Flap Broom Chamber Inner	1
4	8-25-08196	Flap, Rear Outside Frame	1
5	8-13-07115	Clamp, Rear Flap Broom Chamber Outer	1
6	8-29-00231	Gasket	2
7	8-29-00232	Gasket	1
8	8-29-00234	Gasket	1
9	8-29-00233	Gasket	1
10	8-29-00277	Gasket-Broom Chamber	1
11	8-34-09017	Insulation	1
12	8-34-09018	Insulation	1
13	7-21-04022	Edging	2
14	7-21-04031	Edging	1
15	7-21-03003	Edging	1
16	2-00-05261	1/4 - 20 Threaded Insert	4

HARDWARE USED:

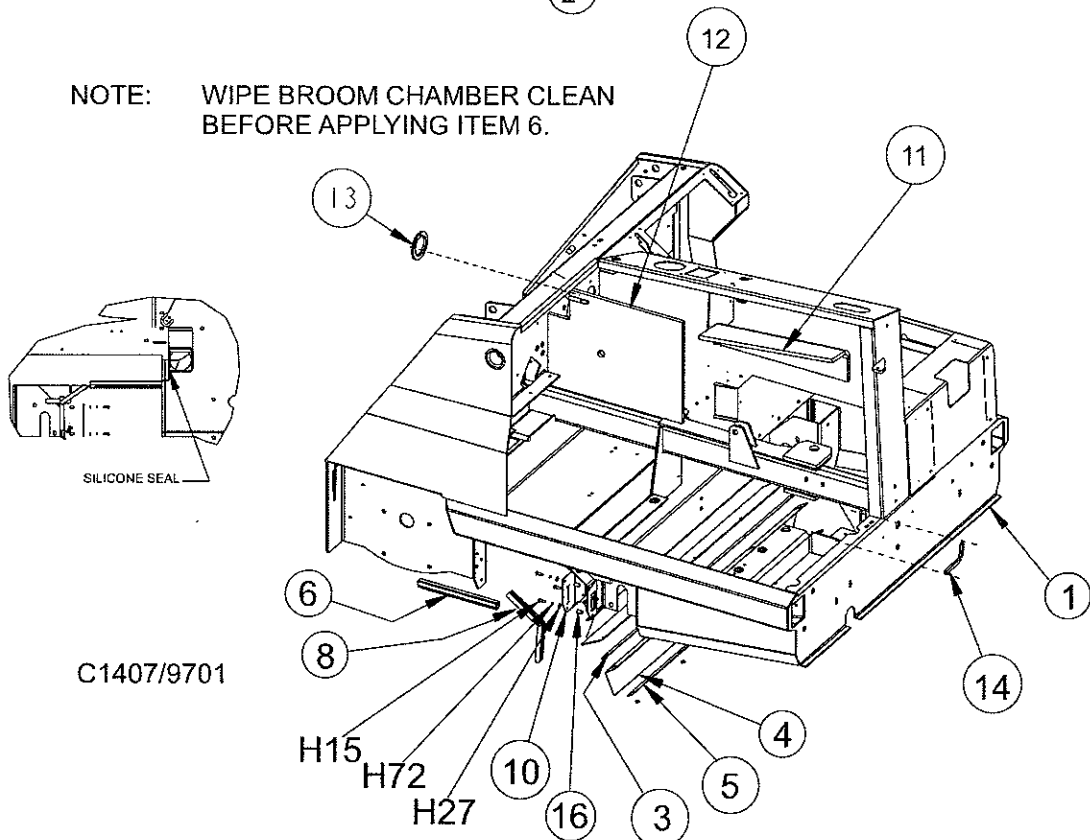
H15	2-00-00221	Screw, 1/4 - 20 x .750 HHC	4
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	5
H27	2-00-03702	Washer, .625 x .281 x .063	4
H72	2-00-00518	Lock Washer, Helical spring	4
H80	2-00-02196	Carriage Bolt, 1/4-20 x 1.000 RHM	5

C1407/9702

BROOM CHAMBER FLAPS & SEALS - EXPLODED VIEW



NOTE: WIPE BROOM CHAMBER CLEAN BEFORE APPLYING ITEM 6.

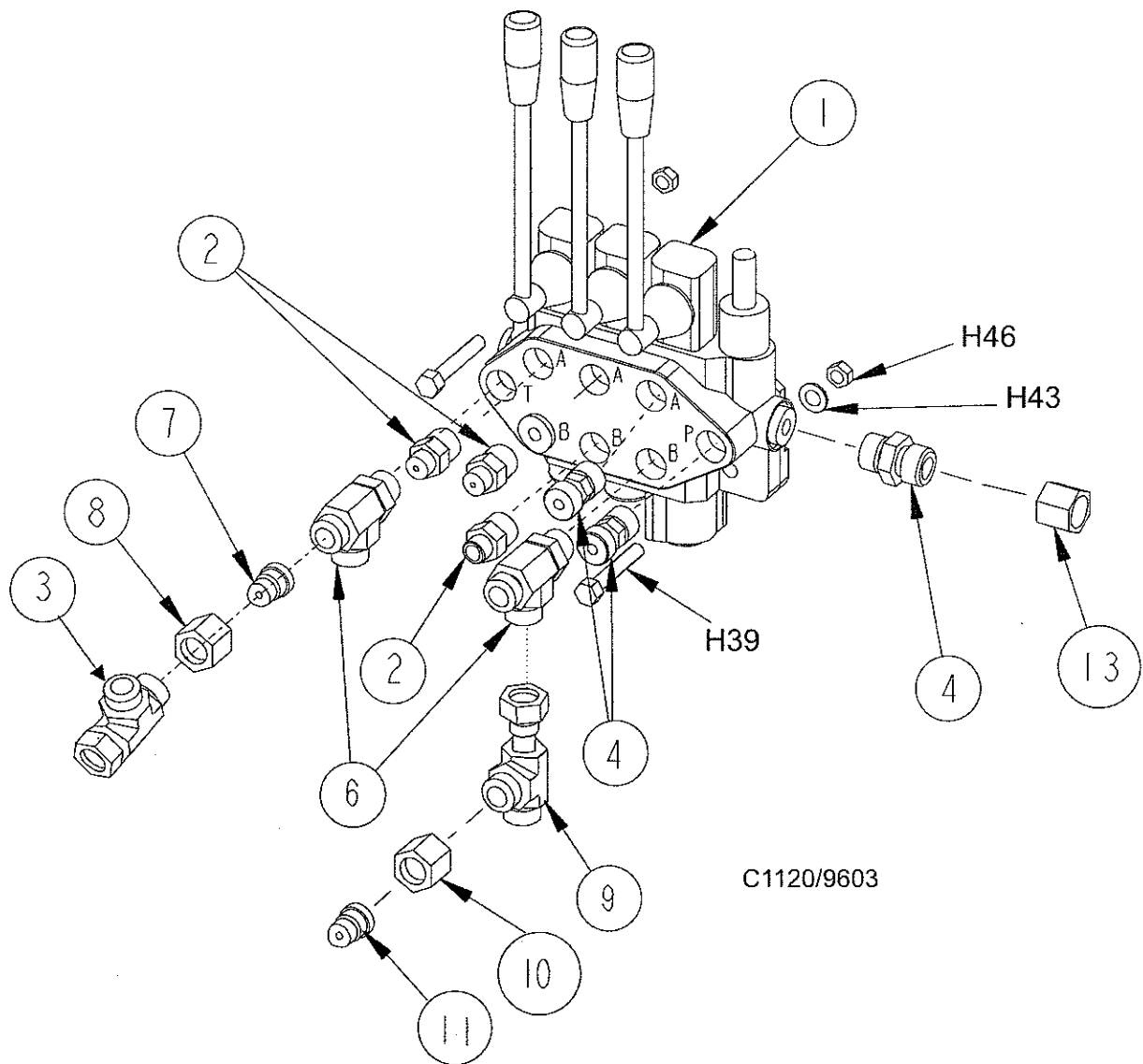


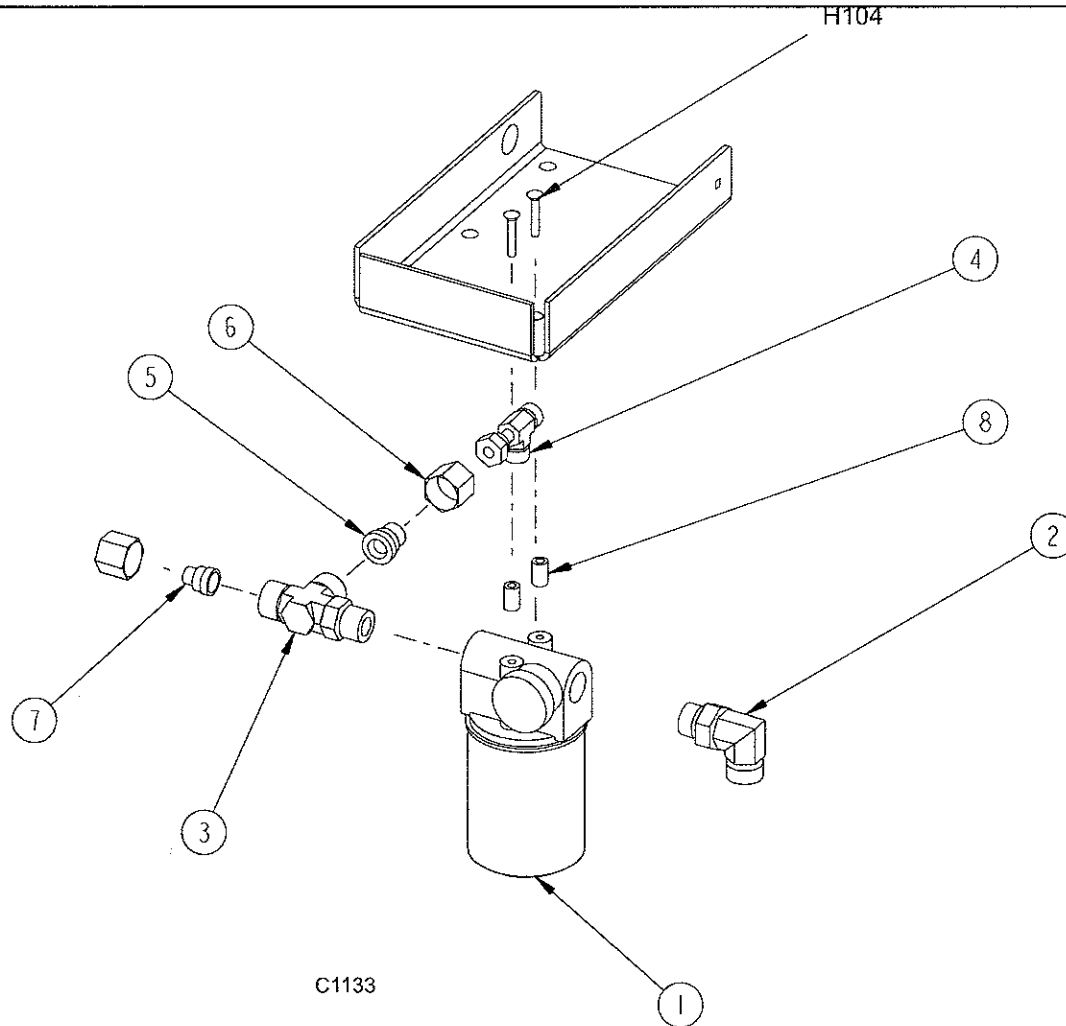
CONTROL & RELIEF VALVES - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-88-00060	Control Valve	1
	7-70-00095	Seal Kit, Control Valve (Service Part)	Ref.
	7-88-00068	Relief Valve, Control Valve (Service Part)	Ref.
2	2-00-05264	Fitting	3
3	2-00-05162	Fitting - Tee	1
4	2-00-04970	Fitting, Connector	3
5			
6	2-00-04924	Fitting, Run Tee	2
7	2-00-04929	Fitting, Reducer	1
8	2-00-04939	Fitting, Nut for Reducer	1
9	2-00-04928	Fitting, Run Tee	1
10	2-00-04939	Fitting	1
11	2-00-04929	Fitting	1
12			
13	2-00-04957	Fitting	1
HARDWARE USED:			
H39	2-00-00218	Screw, 5/16-18 x 2.000 HHC	2
H43	2-00-00409	Flat Washer, .687 x .344 x .062	1
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	2

C1120/9603

CONTROL & RELIEF VALVES - EXPLODED VIEW





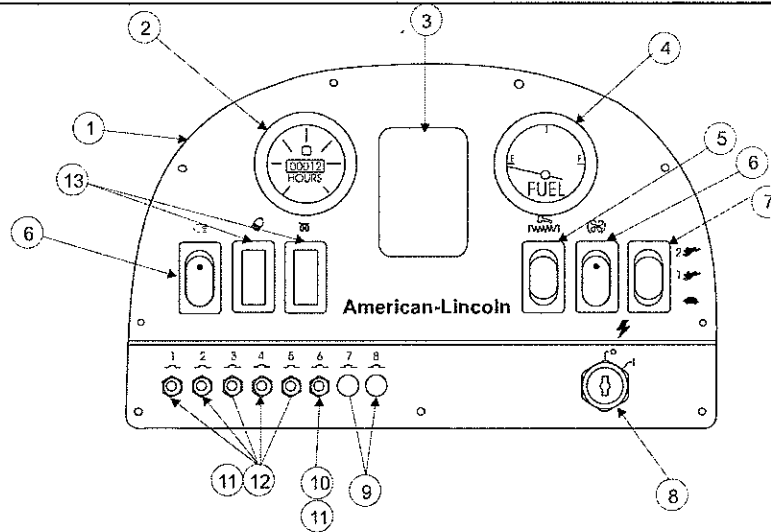
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-24-04116	Hydraulic Filter	1
	8-24-04118	Filter Element (Service Part)	
	2-60-02280	Pressure Gauge (Service Part)	
2	2-00-04972	90° Elbow	1
3	2-00-05269	Run Tee	1
4	2-00-04928	Run Tee	1
5	2-00-05271	Reducer	1
6	2-00-05270	Nut for Reducer	1
7	2-00-05282	Reducer	1
8	8-75-01199	Spacer	2

HARDWARE USED:

H104	2-00-03541	Screw, 1/4-20 x 1.500 FHSC	2
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C1133

INSTRUMENT PANEL

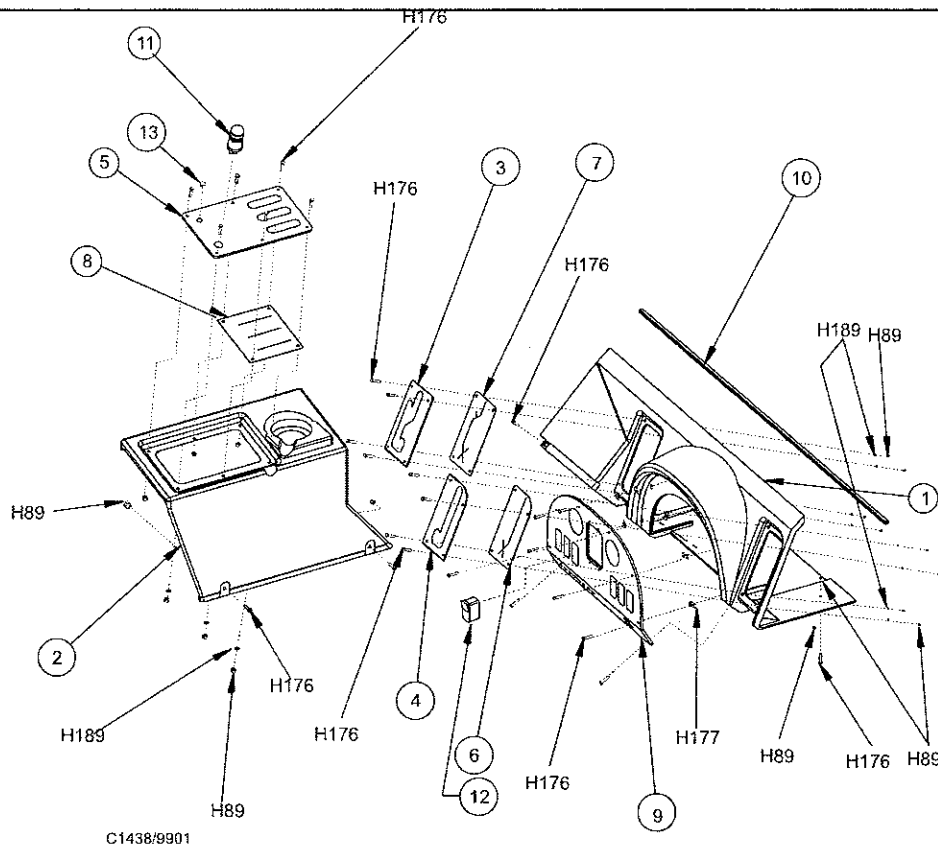


P5175/9901

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-52-00193	Instrument Panel-Fabricated	1
2	8-48-05036	Hourmeter Assy (A-D below)	1
A		Hourmeter	1
B		Hourmeter Bracket	1
C		Hex Nut #8-32	2
D		Star Washer	2
3	0875-141	Warning Panel Assy (A-F below)	1
A		Warning Panel	1
B	8-40-05056	Warning Lamp- Amber	3
C	8-40-05057	Warning Lamp- Red	3
D		Warning Light Bracket	1
E		Push Nut	6
F		X376 Spacer	4
4	8-48-05037	Fuel Gauge Assy (A-D below)	1
A		Fuel Gauge	1
B		Gauge Bracket	1
C		Hex Nut #8-32	2
D		Star Washer	2
5	8-82-00062	Switch, Momentary On-Off	1
6	8-82-00068	Switch, 2 Position On-Off and Light	2
7	8-82-00069	Switch, 3 Position On-On-Off	1
8	7-82-00026	Ignition Switch	1
9	2-00-04757	Hole Plug-.375 dia.	2
10	7-64-00022	Circuit Breaker- 20 Amp	1
11	8-11-00044	Circuit Breaker Boot	6
12	8-64-00008	Circuit Breaker- 15 Amp	5
13	2-00-05375	Switch Blank	2
N/S	0895-124	Harness	1

P5175/9901

INSTRUMENT HOUSING



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-33-05118	Instrument Housing	1
2	8-33-05119	Center Wall Housing	1
3	8-52-00194	Panel, Main Broom	1
4	8-52-00195	Panel, Side Broom	1
5	8-52-00196	Panel, Valve	1
6	8-16-07354	Cover, Side Broom Slot	1
7	8-16-07355	Cover, Main Broom Slot	1
8	8-16-07356	Cover, Valve Slot	1
9	0860-626	Instrument Panel Assembly	1
10	8-68-05081	Trim Seal	1
11	8-82-00024	Horn Button	1
12*	8-82-00062	Switch, Glow Plugs (On)/Off, SPST	1
13*	2-00-05283	Plug Button for Choke Hole on Diesel	1

HARDWARE USED:

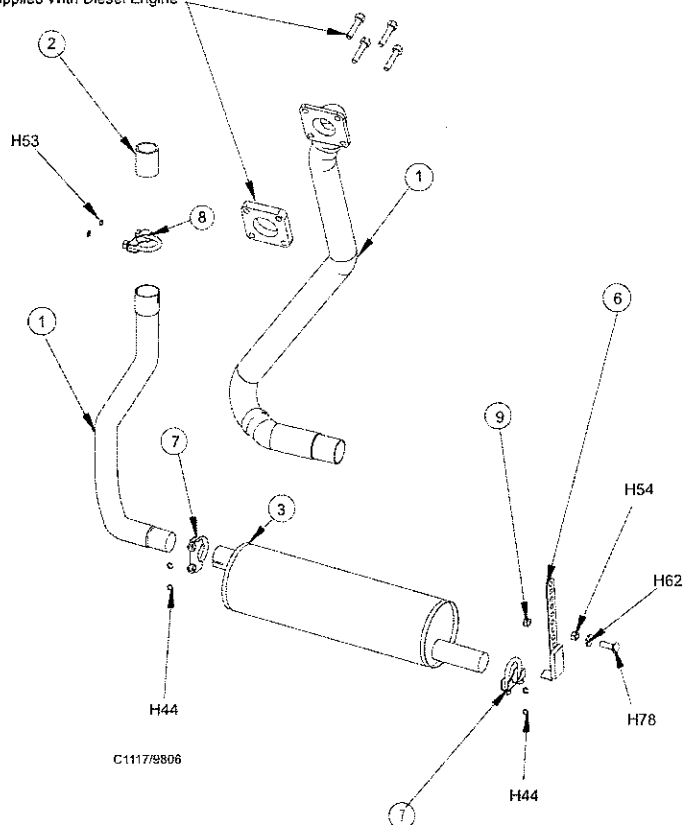
H89	2-00-01372	Nut, Fiber Insert #8-32 Steel	18
H176	2-00-05337	Screw, #8-32 x .750 BHS SS	27
H177	2-00-05324	Threaded Insert, #8-32	9
H189	2-00-00460	Flat Washer, .437 x .192 x .031 -s	14

* = USED ON DIESEL POWERED MACHINES ONLY

C1438/9901

MUFFLER

Supplied With Diesel Engine



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1*	8-56-04045	Exhaust Pipe	1
1^	8-56-04053	Exhaust Pipe (Diesel)	1
2*	8-56-05079	Fitting, Pipe Nipple	1
3	7-49-00031	Muffler	1
4			
5			
6	7-31-07017	Hanger, Muffler	1
7	2-00-04040	Clamp	2
8*	2-00-05149	Clamp	1
9	2-95-04182	Nut, Fiber	1

HARDWARE USED:

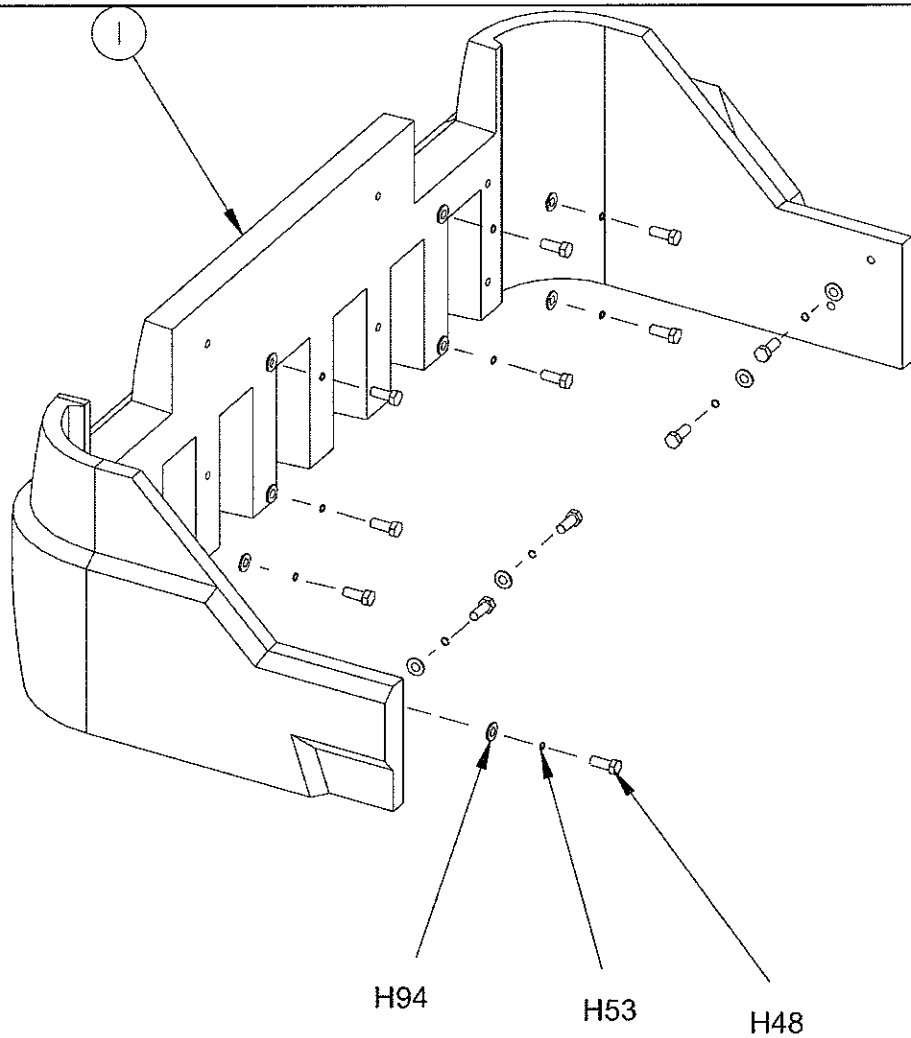
H44	2-00-00530	Lock Washer, 5/16 HS Med.	4
H53*	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	2
H54	2-00-02360	Nut, 3/8-16 Hex.	1
H62	2-00-00405	Flat Washer, 1.063 x .531 x .094	1
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250	1

^=USED ON DIESEL MACHINES ONLY

*=USED ON GAS MACHINES ONLY

C1117/9810

FRONT BUMPER

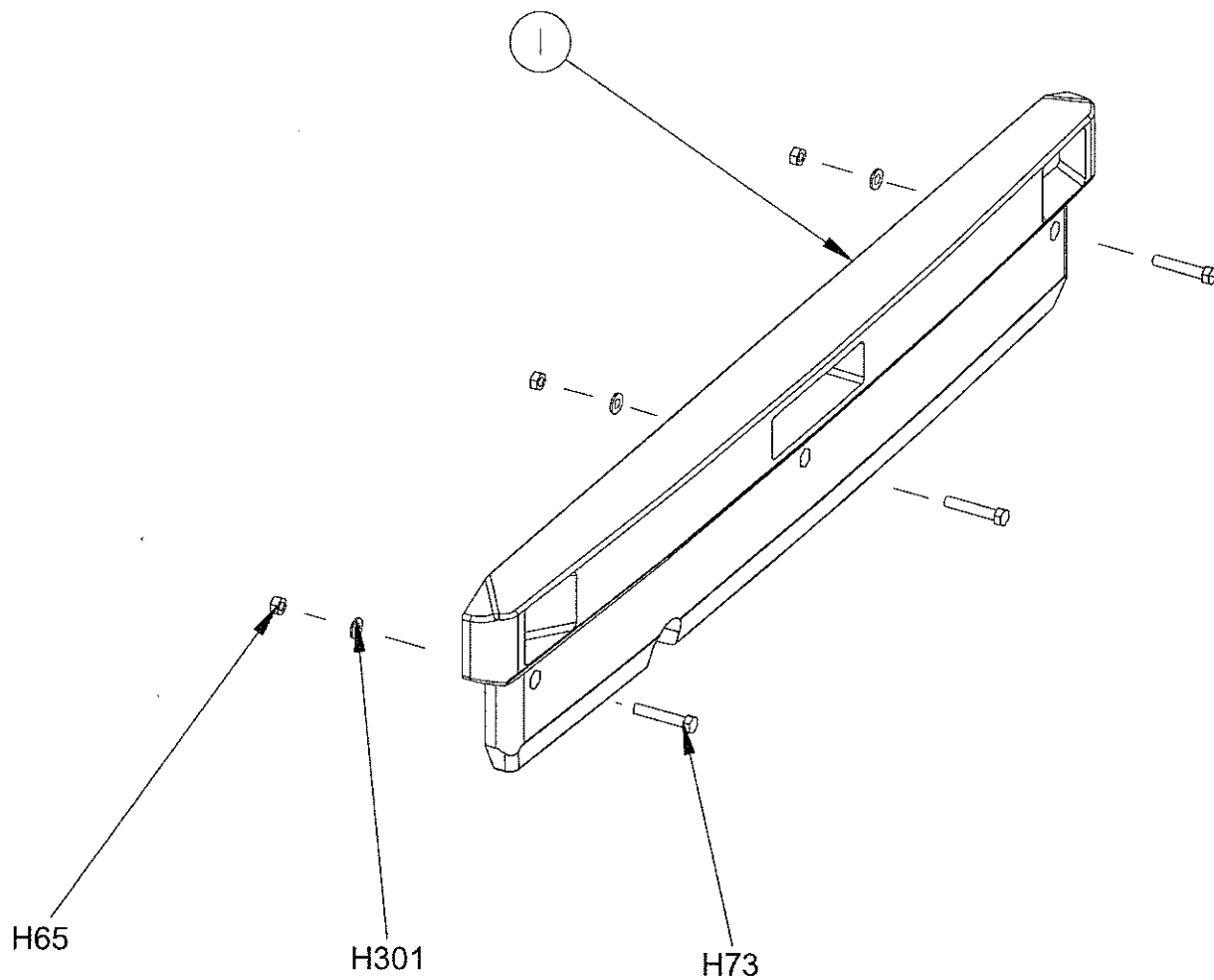


C1121

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-08-07055	Front Bumper	1
HARDWARE USED:			
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	12
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	12
H94	2-00-04851	Flat Washer	12

C-1121/9506

REAR BUMPER

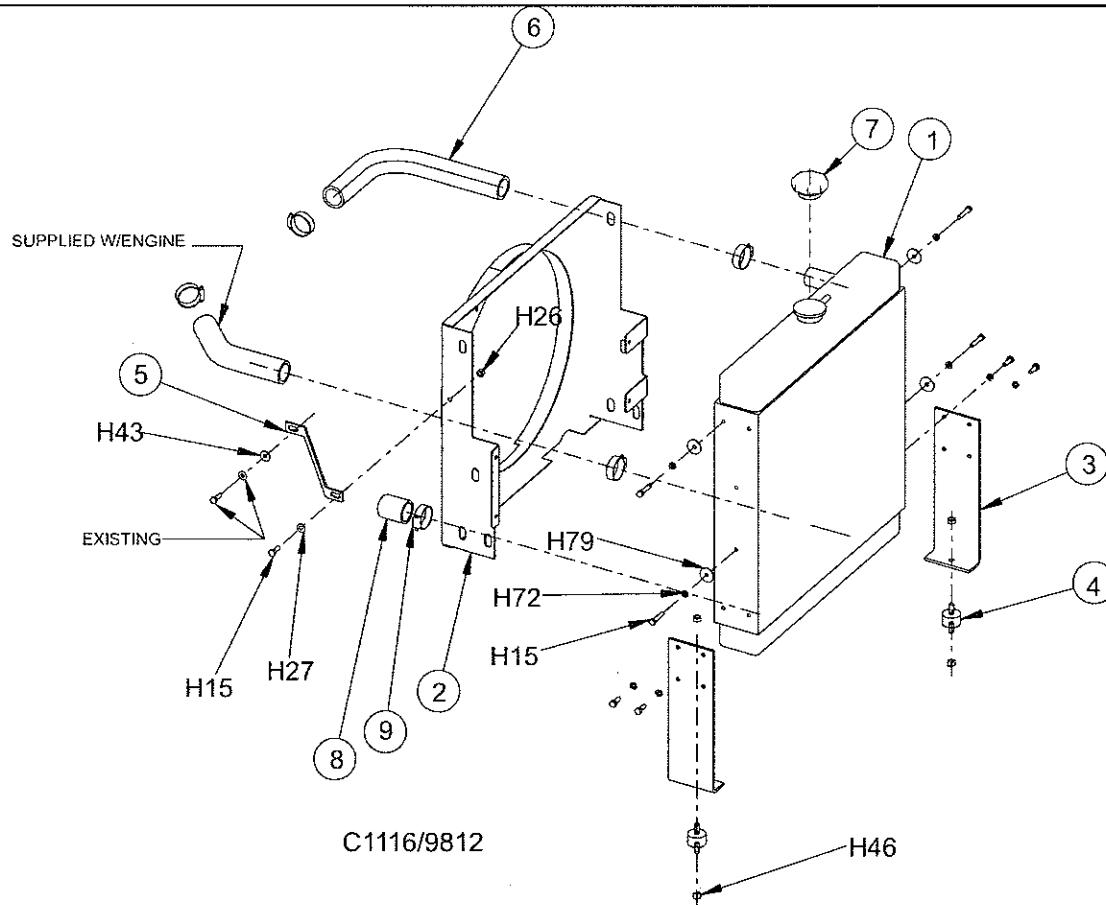


C1118/9812

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-08-07056	Rear Bumper	1
HARDWARE USED:			
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	3
H73	2-00-00247	Screw, 1/2-13 x 2.500 HHC	3
H301	2-00-04159	Flat Washer, 1.375 x .563 x .109 STL	3

C1118/9812

RADIATOR & SHROUD (DIESEL)



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-62-01011	Radiator, Four Core	1
2	8-72-00017	Radiator Shroud (Diesel)	1
3	8-08-00805	Mounting Bracket, Radiator (Diesel)	2
4	8-50-05059	Pad, Radiator Mount	2
5	8-08-00824	Radiator Support Bracket (Diesel)	1
6	8-33-02255	Hose, Upper Radiator (Diesel)	1
7	8-11-00045	Cap, Top	1
8	2-00-04913	Cap, Bottom Port	1
9	2-00-03404	Clamp	5

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	9
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	1
H27	2-00-03702	Washer, .625 x .281 x .063	1
H43	2-00-00409	Flat Washer, .687 x .344 x .062	1
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	4
H72	2-00-00518	Lock Washer, Helical Spring	8
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062	4

C1116/9812

This exploded view diagram illustrates the assembly of a mechanical component. The main body is a large rectangular block with a complex internal structure. Various parts are shown in their relative positions, indicated by dashed lines. The parts are numbered 1 through 10, and labeled with codes: H15, H91, H72, H27, H26, H79, H46, and H15. The assembly includes a curved pipe (H15), a small cylindrical component (H91), a rectangular plate (H72), a small cylindrical component (H27), a small cylindrical component (H26), a small cylindrical component (H79), a small cylindrical component (H46), a small cylindrical component (H15), and a small cylindrical component (H15). The diagram shows the assembly of the main body with the curved pipe (H15) and the small cylindrical components (H91, H27, H26, H79, H46, H15, H15). The assembly is shown in an exploded view, with the main body and the curved pipe (H15) and the small cylindrical components (H91, H27, H26, H79, H46, H15, H15) shown in their relative positions. The assembly is shown in an exploded view, with the main body and the curved pipe (H15) and the small cylindrical components (H91, H27, H26, H79, H46, H15, H15) shown in their relative positions.

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-62-01011	Radiator, Four Core	1
2	8-72-00015	Radiator Shroud	1
3	8-08-00785	Mounting Bracket, Radiator	2
4	8-50-05059	Pad, Radiator Mount	2
5	8-08-00784	Radiator Support Bracket	1
6	8-33-02317	Hose, Upper Radiator	1
7	8-33-02318	Hose, Lower Radiator	1
8	8-11-00045	Cap, Top	1
9	2-00-04913	Cap, Bottom Port	1
10	2-00-03404	Clamp	5

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	9
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	1
H27	2-00-03702	Washer, .625 x .281 x .063	1
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	4
H72	2-00-00518	Lock Washer, Helical Spring	9
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062	4
H91	2-00-05279	Screw, M6 x 1.0 x 20 mm MHHC	1

2-55

FUEL TANK - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-83-04029	Gas Tank	1
2	8-08-00791	Fuel Support Bracket	1
3	2-95-04182	Nut, Fiber Insert	2
4	2-00-04564	Clamp	2
4^	2-00-04873	Clamp	3
5	8-87-02113	Fuel Line	1
6	8-26-04003	Float/Sender	1
7	2-00-04494	Fitting	1
8	8-08-07038	Bumper	2
9	2-00-05050	Clamp	1
9^	2-00-05253	Clamp	1
10	7-11-00029	Cap	1
11^	8-56-05021	Fitting	1
12^	2-00-04618	Fitting	1
13^	2-95-04388	Hose Clamp	1

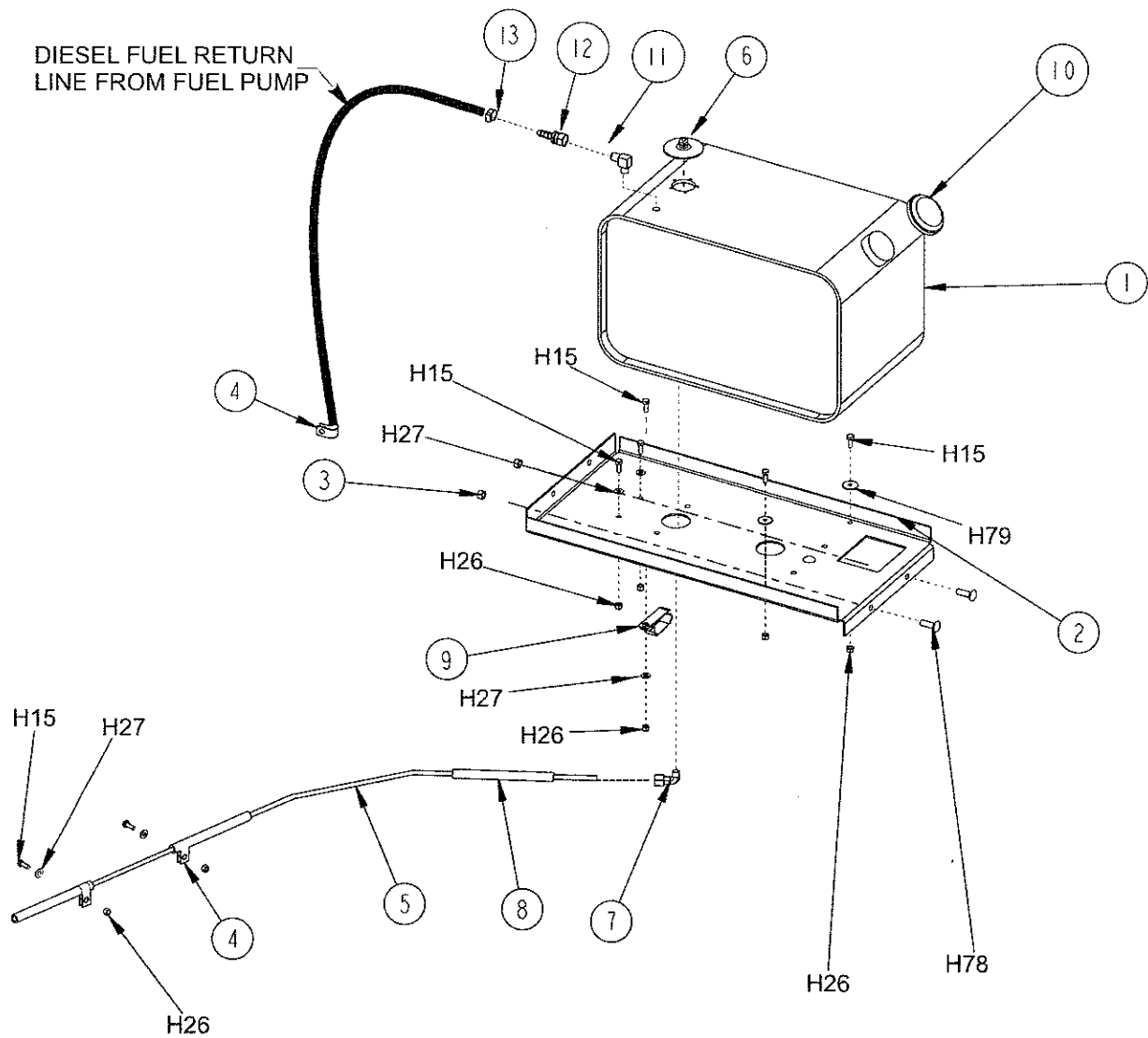
HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	7
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	7
H27	2-00-03702	Washer, .625 x .281 x .063	5
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250	2
H79	2-00-01676	Flat Washer, 1.062 x .265 x .062	2

^=USED ON DIESEL MACHINES ONLY

C1125/9506

FUEL TANK - EXPLODED VIEW



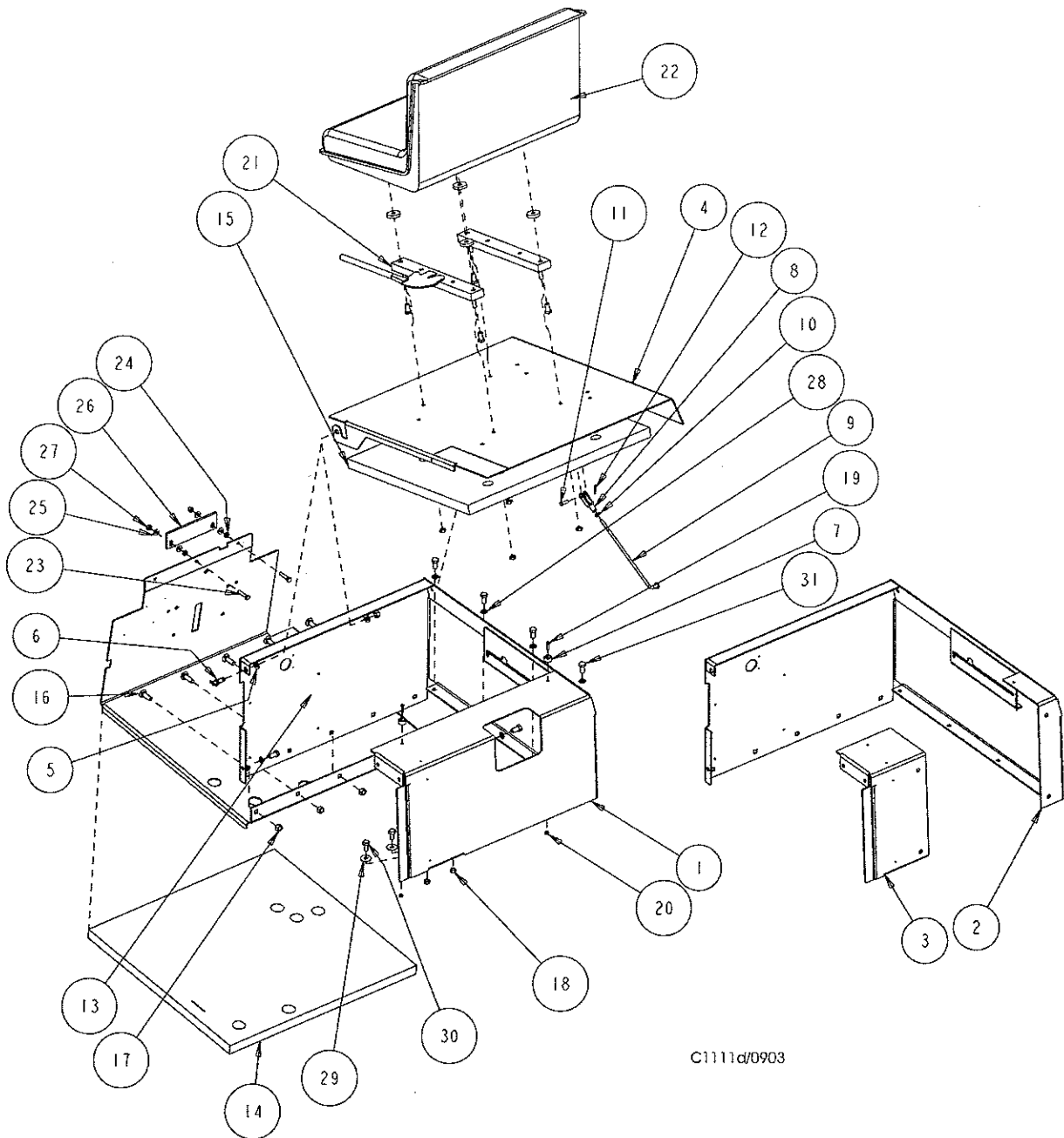
C-1125/9812

SEAT & FLOOR ASSEMBLY - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-33-05152	Housing, Seat (Gas & Diesel only)	1
2	8-33-05153	Housing, Seat (LP only)	1
3	8-08-00922	Bracket, Seat Pedestal (LP only)	1
4	8-16-07348	Seat Deck	1
5	2-00-00402	Flat Washer, .750 x .390 x .094	2
6	8-55-08121	Pin, Seat Deck Pivot	1
7	8-50-05058	Rubber Bumpers	2
8	8-14-01006	Clevis	1
9	8-66-00171	Prop Rod	1
10	2-95-01999	Nut, 1/4-28 Hex Jam	1
11	2-00-04909	Pin, 1/4 x 3/4 LG	1
12	2-00-05249	Hair Pin (Cotter)	1
13	8-52-00123	Kick Panel, Floor	1
14	8-34-09016	Insulation, Floor	1
15	8-34-09019	Insulation, Seat Deck	1
16	2-00-05187	Carriage Bolt, 3/8-16 x 1.0	5
17	2-95-04182	Nut, 3/8-16 Hex Stop	6
18	2-00-00644	Nut, 5/16-18 Hex Insert Fiber	6
19	2-00-05258	Screw, #8-32 x 3/4 SOC BHCS	2
20	2-00-01372	Nut, #8-32 Hex Fiber Lock	2
21	7-72-05005	Slide Adjuster Kit	1
22	8-69-00022	Seat	1
23	2-00-00222	Screw, 1/4-20 x 1.25 Hex Head	2
24	2-00-00589	Nut, 1/4-20	2
25	2-00-03702	Washer, .625 x .281 x .063	4
26	8-58-05270	Plate, Latch	1
27	2-00-00641	Nut, 1/4-20 Fiber Insert	2
28	2-00-02310	Lock Washer, 3/8 Helical Spring	7
29	2-00-03979	Flat Washer, 1.0 x .39 x .062	2
30	2-00-00208	Screw, 5/16-18 x .75 HHC	2
31	2-00-00232	Bolt, 3/8-16 Hex Head Finished	7

C1111d/0903

SEAT & FLOOR ASSEMBLY - EXPLODED VIEW



C1111d/0903

ENGINE COVER - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-16-07349	Engine Cover	1
1^	8-16-07363	Engine Cover (Diesel)	1
2	8-08-00776	Engine Cover Mounting Plate	1
3	8-41-00051	Rotor Latch	1
4	8-39-00014	Latch Knob	1
5	7-21-03003	Edging	1
6	8-66-05012	Roller, Engine Cover Guide	1
7	2-95-04182	Nut, Fiber 3/8-16	2
8	8-29-00236	Gasket, Engine Cover	1
9	8-29-00237	Gasket, Engine Cover	1
10	2-00-05266	Clevis Pin	1
11	2-00-05249	Cotter Pin	1
12	8-34-09020	Insulation	1
13	8-34-09021	Insulation	1

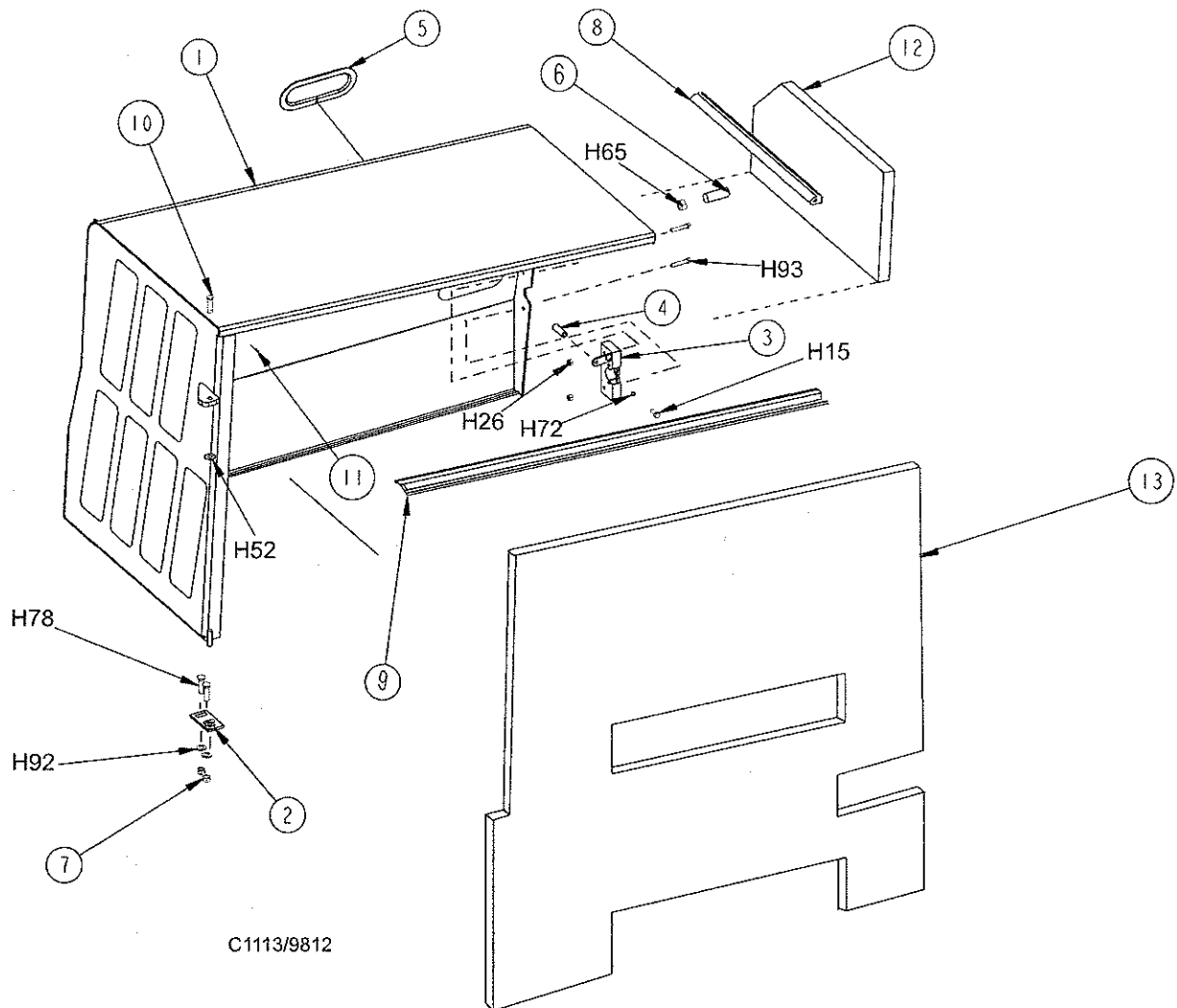
HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	1
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	2
H52	2-00-00402	Flat Washer, .750 x .390 x .094	1
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	1
H72	2-00-00518	Lock Washer, Helical Spring	1
H78	2-00-05187	Carriage Bolt, 3/8-16 x 1.250	2
H92	2-00-04801	Flat Washer, .875 x .375 x .125	2
H93	2-00-00222	Screw, 1/4-20 x 1.250 HHM	2

^=USED ON DIESEL MACHINES ONLY

C1113/9812

ENGINE COVER - EXPLODED VIEW



DIESEL ENGINE - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	0877-048-1	Perkins Engine	1
2			
3	8-33-05107	Pump Plate	1
4	8-90-07328	Ground Cable	1
5	8-08-00825	Bracket, Engine Mounting	2
6	8-24-04136	Indicator	1
7	2-00-02216	Hose Clamp	4
8	7-35-00017	Isolator Mount	4
9	8-08-00888	Bracket, Governor Mounting	1
10	7-08-00823	Air Cleaner Mounting Bracket	1
11	8-24-04093	Band Assembly	1
12	8-24-04100	Air Cleaner, Donaldson	1
13			
14	8-08-00822	Bracket, Engine Mounting - Left	1
15	8-08-00823	Bracket, Engine Mounting - Right	1
16	8-33-02332	Hose	1
17	7-33-02596	Hose, A/C Inlet	1
18	8-58-05259	Adapter Plate	1
19	0885-088	Coupling	1

HARDWARE USED:

H34	2-00-00208	Screw, 5/16-18 x .750 HHC	2
H43	2-00-00409	Flat Washer, .687 x .344 x .062	2
H44	2-00-00530	Lock Washer, 5/16 HS Med.	2
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	4
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	20
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC	2
H52	2-00-00402	Flat Washer, .750 x .390 x .094	15
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	22
H62	2-00-00405	Flat Washer, 1.063 x .531 x .094	2
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	4
H72	2-00-00518	Lock Washer, Helical Spring	1
H117	2-00-05067	Flat Washer, 1.750 x .531 x .100	6
H119	2-00-05005	Screw, M10 x 1.500 30 mm MHHC	1
H154	2-00-04363	Screw, M8-1.250 x .750	2
H155	2-00-05044	Lock Washer, M14 Split	8
H156	2-00-05079	Screw, M14 x 1.500 x 25 mm HHC	6
H158	2-00-05306	Screw, M14 x 35 mm HHC	2
H191	2-00-05279	Screw, M6 x 1.0 x 20 mm, MHHC	1
H220	2-00-02617	Screw, 50-13 x 3.25 HHC	4

C1190/9901

This diagram is an exploded view of a mechanical assembly, likely a pump or engine component. It shows the following parts and callouts:

- Numbered parts (circled):** 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 19.
- Lettered callouts:** H34, H43, H44, H46, H48, H49, H52, H53, H58, H62, H65, H117, H119, H154, H155, H156, H220.

The assembly includes a central housing (1) with various ports and mounting points. A long shaft (3) passes through the center, with a large circular flange (4) at one end. A curved pipe (16) is attached to the top. A bracket (14) is mounted on the side, and a long arm (9) extends from the bottom. Various bolts, nuts, and washers (H43, H44, H46, H48, H49, H52, H53, H58, H62, H65, H117, H220) are shown in their respective positions. A small motor or actuator (6) is connected to the top of the assembly via a vertical pipe (12). A large circular cover (11) is shown at the bottom left, and a smaller circular component (18) is shown near the center. A small rectangular component (15) is mounted on the side of the housing. A curved pipe (16) is attached to the top of the housing. A long arm (9) extends from the bottom of the housing, with a bracket (14) mounted on it. A long shaft (3) passes through the center of the housing, with a large circular flange (4) at one end. A small motor or actuator (6) is connected to the top of the assembly via a vertical pipe (12). A large circular cover (11) is shown at the bottom left, and a smaller circular component (18) is shown near the center.

DIESEL FUEL SYSTEM - PARTS LIST

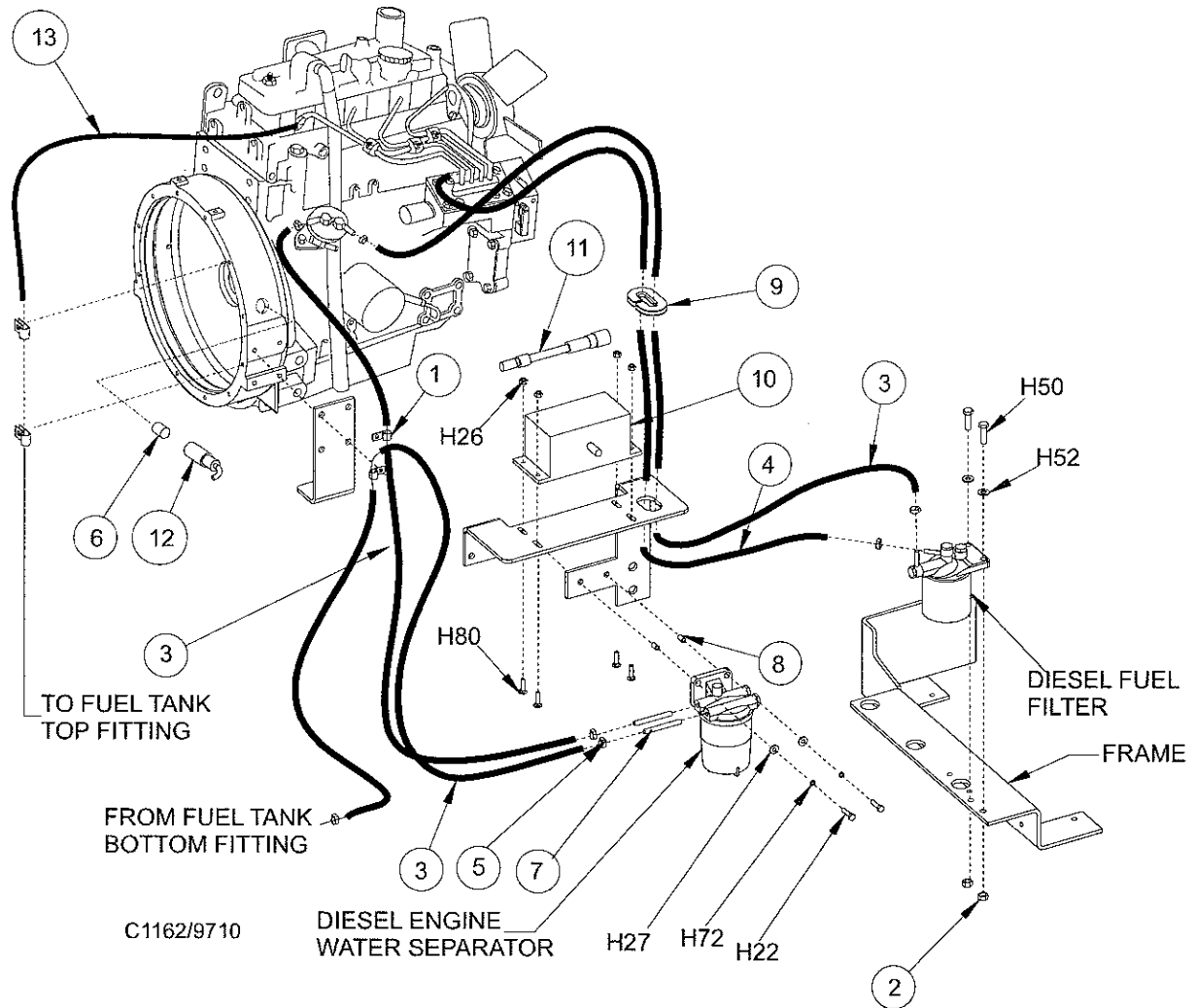
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-42-05142	Link-Governor	1
2	8-14-01006	Clevis	2
3	2-00-05363	Hose Clamp	12
4	7-74-00006	Solenoid- Throttle	2
5	2-95-01999	Jam-Nut	2
6	8-41-05089	Lever Governor	1
7	8-75-01203	Spacer	4
8	2-00-04873	Hose Clamp	4
9	8-33-02270	Hose	1
10	7-64-00031	Timer Solenoid	2
11	7-21-04031	Edging	1
12	8-08-00889	Bracket- Pivot	1
13	8-33-02154	Hose	1
14	8-33-02145	Hose	3
15	2-00-05261	Threaded Insert	2
16	7-75-01098	Tube	2
17	2-95-04182	Nut, 3/8- 16 Elastic Stop	2
18	2-00-01915	Grommet	1

HARDWARE USED:

H12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	3
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	7
H27	2-00-03702	Washer, .625 x .281 x .063	10
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC	2
H52	2-00-00402	Flatwasher, .750 x .390 x .094	2
H72	2-00-00518	Lock Washer, Helical Spring	2
H185	2-00-02588	Screw, 1/4-20 x 1.125 HHC Cad. Pl.	2
H232	2-00-04909	Yoke Pin Assy.	3
H233	2-00-02638	Screw- HHC .25-20 x 3.00	4
H234	2-00-00064	Screw-RHM #10-24 x .88	2

C1162/0009

DIESEL FUEL SYSTEM - EXPLODED VIEW

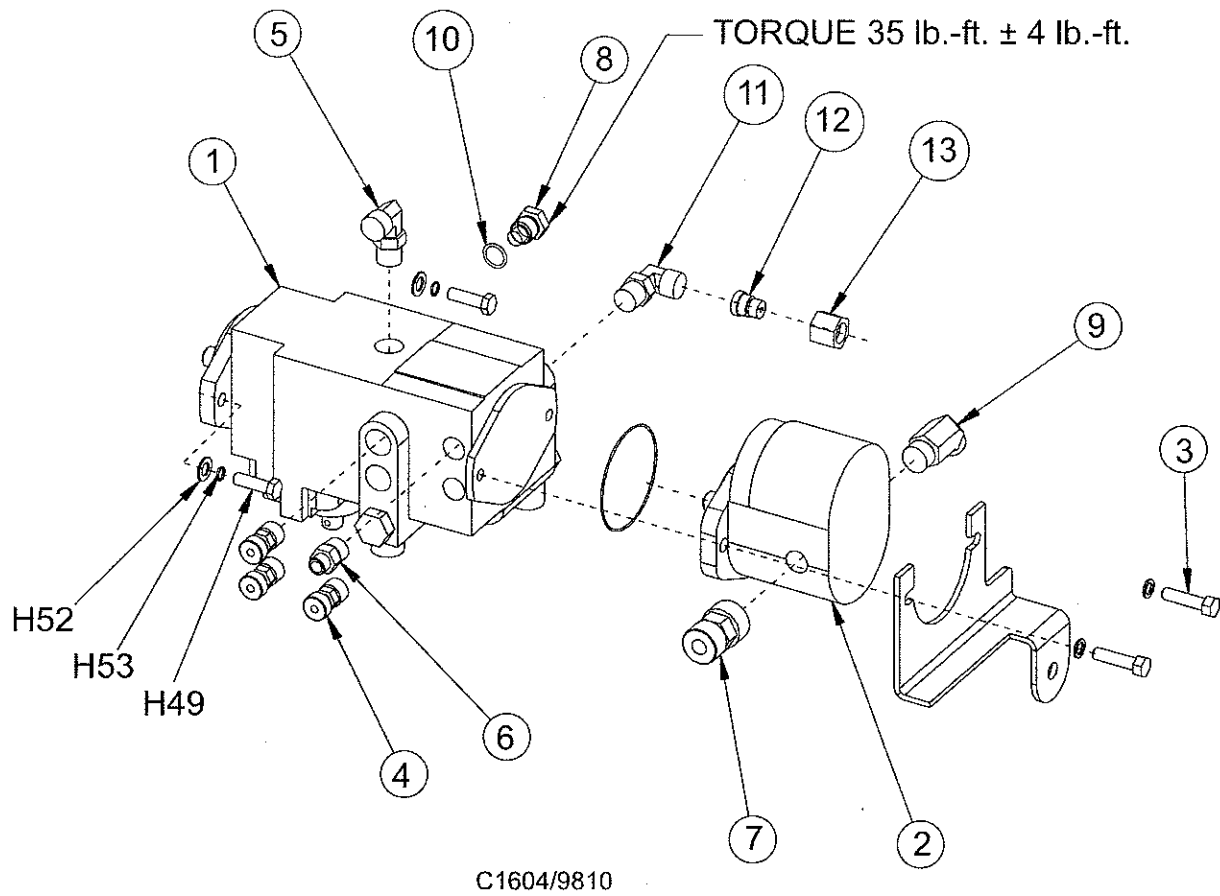


PUMP - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	7-60-05023-1	Piston Pump	1
	7-70-00093	Piston Pump Seal Kit (Service Part)	
2	0885-067	Gear Pump	1
	0780-152	Gear Pump Seal Kit (Service Part)	
3	0880-404	Seal Kit	1
4	2-00-04970	Fitting, Connector	3
5	2-00-04885	Fitting, 90° Elbow	1
6	2-00-05264	Fitting, Connector	1
7	2-00-04971	Fitting, Connector	1
8	7-78-05023	Pump Stop	1
9	2-00-04989	Fitting, 45° Elbow	1
10	2-00-04983	O-Ring	1
11	2-00-04885	Fitting, 90° #8 - #8	1
12	2-00-04929	Reducer, #8 - #4	1
13	2-00-04939	Cap Nut #8	1
HARDWARE USED:			
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC	2
H52	2-00-00402	Flat Washer, .750 x .390 x .094	2
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	2

C1604/9901

PUMP - EXPLODED VIEW



GASOLINE/LP ENGINE - PARTS LIST

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	0877-061	411 Ford Engine	1
1 [^]	0877-064	413 Ford Engine (XP Model)	1
2	2-00-05067	Washer	3
3	7-35-00017	Isolator Mount	3
4	8-08-00783	Air Filter Mounting Bracket	1
5	8-24-04093	Band Assembly	1
6	8-24-04100	Air Cleaner	1
	8-24-04106	Air Cleaner Element (Service Part)	Ref.
7	8-33-02279	Hose, Air Cleaner to Carburetor	1
8	2-00-02216	Clamp, Hose	4
9	8-08-00778	Engine Mounting Bracket	1
10	8-16-00066	Choke Cable	1
11	8-24-04101	Meter	1
12	7-33-02596	Hose, Air Cleaner Inlet	1
13	8-33-02145	Hose, Fuel	1
14	8-90-07328	Cable	1
15	2-00-04388	Clamp	2
15 [^]	2-00-05363	Clamp	2
16	8-08-00879	Bracket, Solenoid Mount	1
17	2-95-04182	Nut, Fiber	1
18 [^]	8-30-08025	Guard, Fan-Alternator	1
19 [^]	2-00-03454	Clamp, Hose	1

HARDWARE USED:

H12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	3
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	5
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	1
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	3
H101	2-00-04897	Screw, #10-24 x 1.250 THM	2
H117	2-00-05067	Flat Washer, 1.750 x .531 x .100	5
H118	2-00-02618	Screw, 1/2-13 x 3.500 HHC	3
H119	2-00-05005	Screw, M10 x 1.500 30 mm MHHC	1
H120	2-00-03829	Lock Washer, 3/8 Bolt	1
H132	2-00-00503	Lock Washer, 1/4 Ext	7

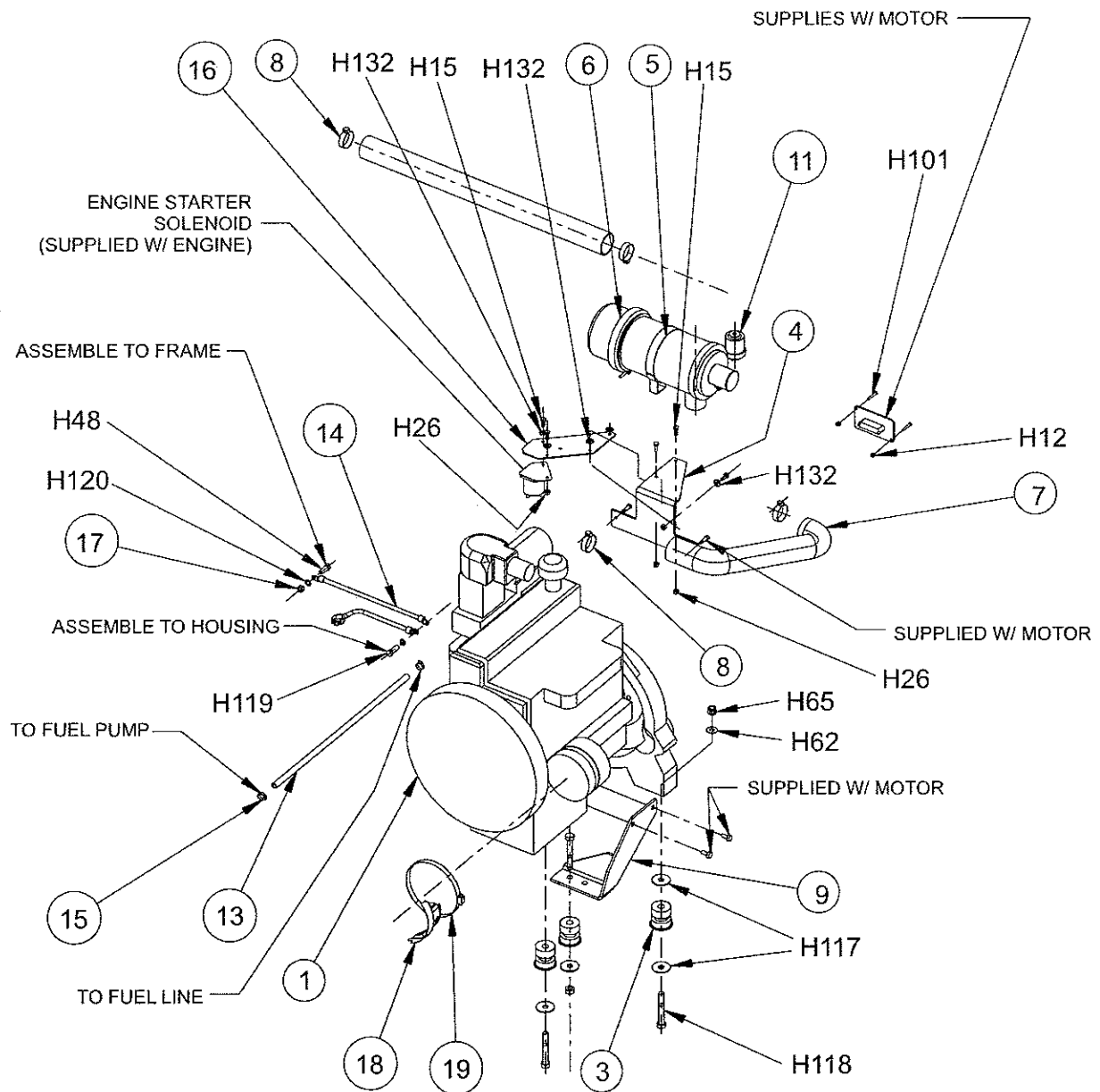
FORD ENGINE SERVICE PARTS:

8-60-05024	Water Pump W/Gasket	0875-120	Starter
8-84-08001	Thermostat	8-14-07011	Coil
8-84-00167	Thermostat Gasket	8-24-04099	Oil Filter
8-70-00066	Fuel Pump W/Gasket	8-24-04138	Fuel Filter
8-03-03005	Alternator W/Pully	8-70-00072	Spark Plug Wire Set
2-00-05248	Alternator Belt	8-75-03007	Spark Plug
0869-085	Carburetor	8-29-00217	Carburetor Gasket

[^]=USED ON GASOLINE POWERED XP MACHINES ONLY

C1405/0007

GASOLINE/LP ENGINE - EXPLODED VIEW



C1405/0007

GASOLINE/LP ENGINE - PARTS LIST

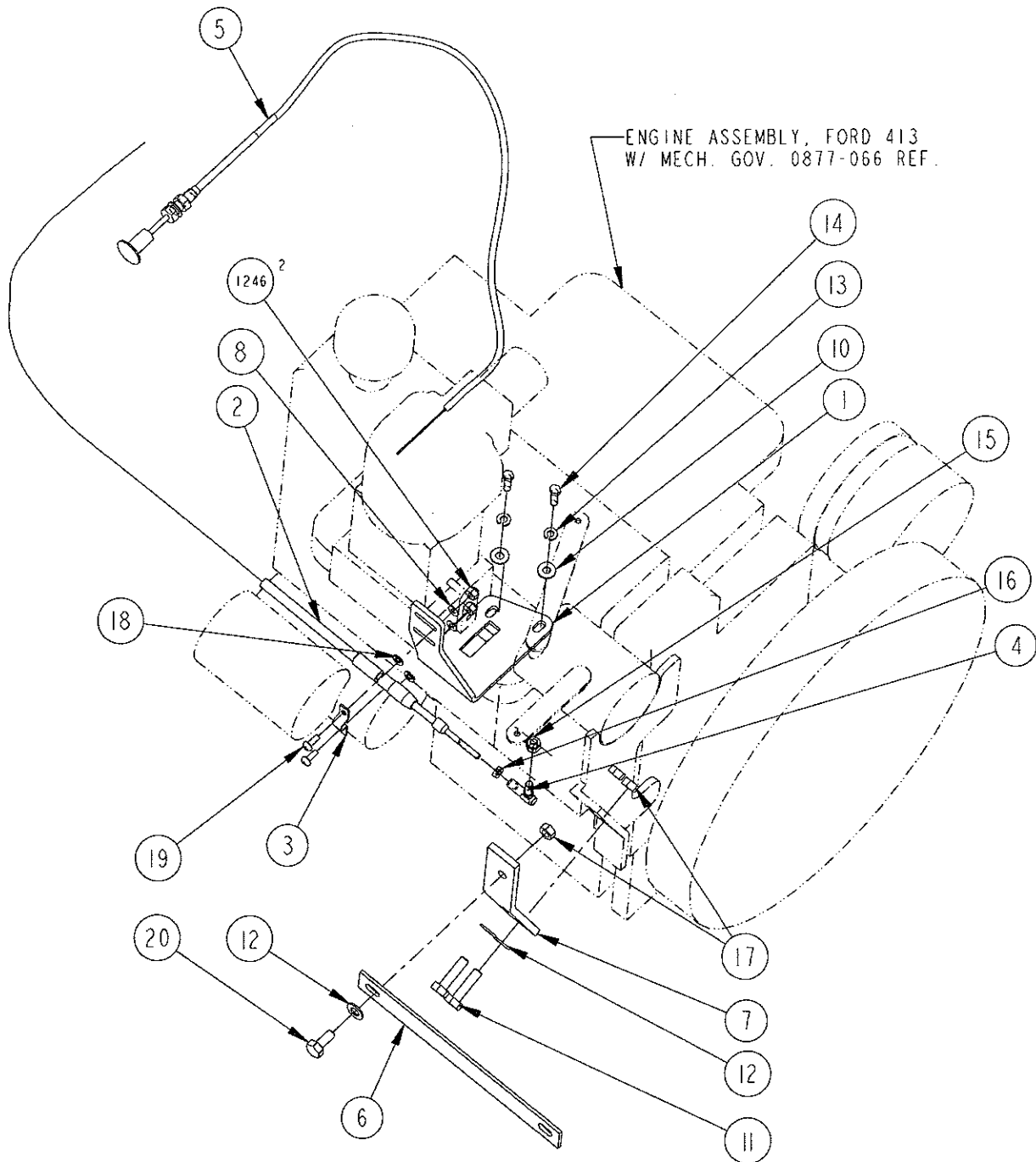
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	7-08-00999	Bracket - Mech. Gov. Cable	1
2	7-10-00024	Cable - Throttle	1
3	8-13-07094	Conduit Clamp	1
4	8-25-02036	Ball Joint Connector	1
5	8-16-00054	Choke Cable	1
6	8-89-00129	Strap - Engine/Radiator	1
7	8-08-00916	Bracket, Strap	1

HARDWARE USED:

8	2-00-00426	Flatwasher, .500 x .219 x .063	2
9	2-00-01246	Nut, Hex Fiber Insert #10-24	2
10	2-00-03702	Washer, .625 x .281 x .063	2
11	2-00-00207	Screw, .313-18 x 1.25 HHC	2
12	2-00-00409	Flatwasher, .687 x .344 x .062	3
13	2-00-00518	Lockwasher, Helical Spring	2
14	2-00-05279	Screw, M6 x 1.0 x 20 mm MHHC	2
15	2-00-00633	Nut, Fiber 1/4-28	1
16	2-00-00626	Nut, Hex MS #10-32 x .375 x .125	1
17	2-00-00644	Nut, .31-18 Fiber Insert	3
18	2-00-00501	Lock Washer, Int. Tooth ZN	2
19	2-00-00056	Screw, 10-24 x .75 RHM	2
20	2-00-02708	Screw, .313 x 1.00 HHM	1

C1445k/0103

GASOLINE/LP ENGINE - EXPLODED VIEW

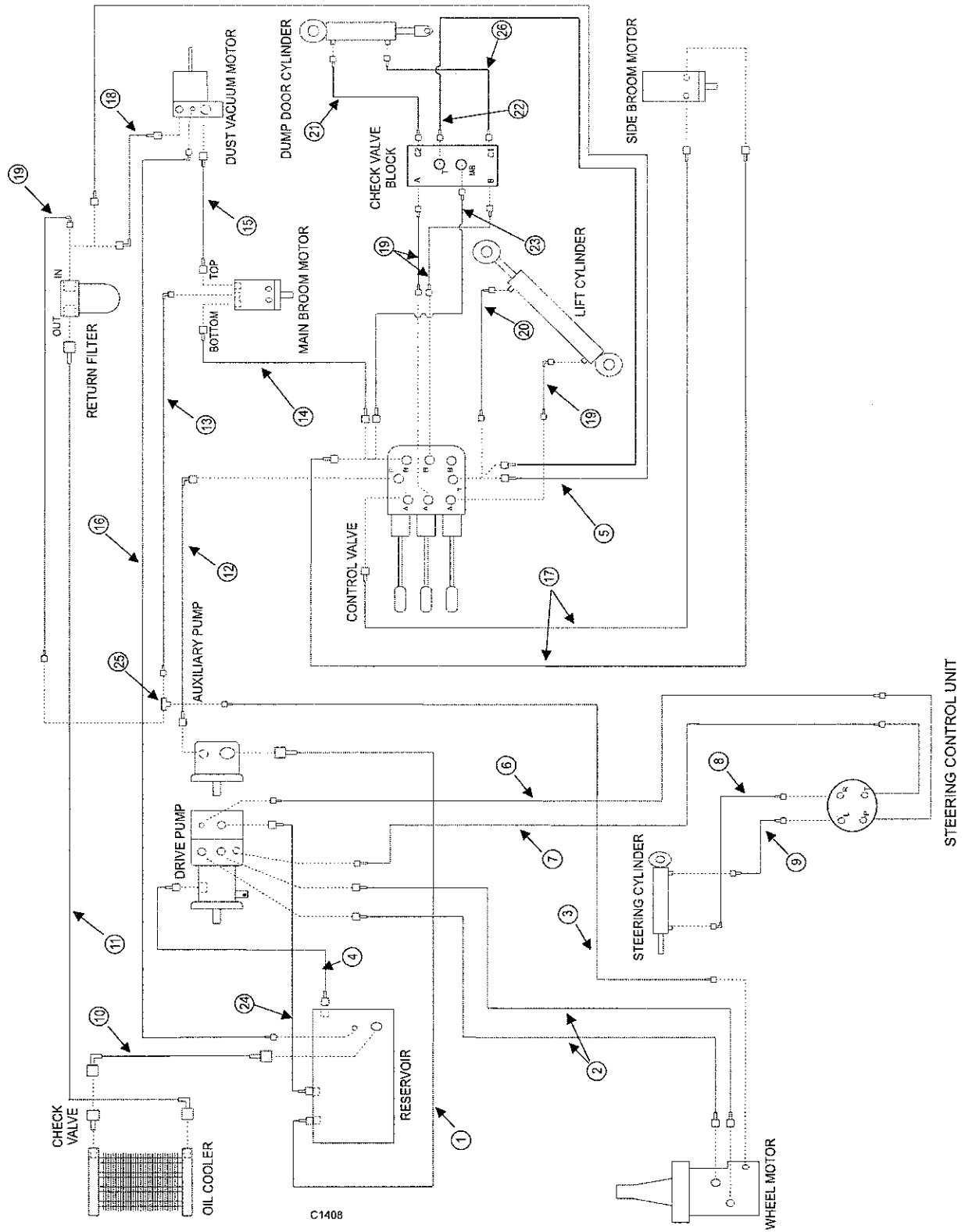


HYDRAULIC HOSE DIAGRAM - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-33-02343	Hose, # 12 x 45.0" -0-45-ORS-1WB	1
2	8-33-02344	Hose, # 8 x 55.0" -0-0-ORS-2WB	2
3	8-33-02173	Hose, # 4 x 80.0" -0-0-ORS-1WB	1
4	8-33-02214	Hose, # 8 x 29.0" -0-0-ORS-1WB	1
5	8-33-02326	Hose, # 8 x 34.5" -0-0-ORS-1WB	1
6	8-33-02185	Hose, # 4 x 56.0" -0-0-ORS-1WB	1
7	8-33-02189	Hose, # 4 x 66.0" -0-0-ORS-1WB	1
8	7-33-02193	Hose, # 4 x 49.0" -0-90-ORS-1WB	1
9	8-33-02182	Hose, # 4 x 42.5" -0-0-ORS-1WB	1
10	8-33-02322	Hose, # 12 x 47.0" -0-90-ORS-1WB	1
11	8-33-02321	Hose, #12 x 58.0" -0-90-ORS-1WB	1
12	8-33-02323	Hose, # 8 x 55.0" -0-90-ORS-1WB	1
13	8-33-02329	Hose, # 4 x 30.0" -0-90-ORS-1WB	1
14	8-33-02324	Hose, # 8 x 72.0" -0-0-ORS-1WB	1
15	8-33-02325	Hose, # 8 x 65.0" -0-0-ORS-1WB	1
16	8-33-02328	Hose, # 4 x 78.5" -0-90-ORS-1WB	1
17	8-33-02327	Hose, # 8 x 94.0" -0-0-ORS-1WB	2
18	7-33-02206	Hose, # 8 x 14.25" -0-90-ORS-1WB	1
19	7-33-02189	Hose, # 4 x 26.0" 0-90-ORS-1WB	4
20	8-33-02175	Hose, # 4 x 21.0" -0-0-ORS-1WB	1
21	7-33-02193	Hose, # 4 x49.0" - 0-90-ORS-1WB	1
22	8-33-02176	Hose, # 4 x 21.0" - 0-90-ORS-1WB	1
23	8-33-02199	Hose, # 4 x 24.5" -0-90-ors-1wb	1
24	7-33-02187	Hose, #8 x 42.0" -0-0-ORS - 1WB	1
25	2-00-04930	Fitting, Union Tee, # 4	1
26	7-33-02191	Hose, #4 x 42.0" -0-90-ORS-1 WB	1

C1408/9901

HYDRAULIC HOSE DIAGRAM - EXPLODED VIEW



ELECTRICAL ASSEMBLY RELAYS - PARTS LIST

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-08-00799	Bracket, Relay	1
2	8-64-00012	Relay	2
3	8-64-05010	Time Delay	1
4	0875-116	Diode Assembly	1
5	0895-109	Harness, Governor/Relay	1
6			
7 [^]	8-58-05279	ID Plate	1
8 [^]	8-06-05007	Terminal Strip	1
9	8-64-05009	Relay	2
10 [^]	2-00-04203	Boot	2

HARDWARE USED:

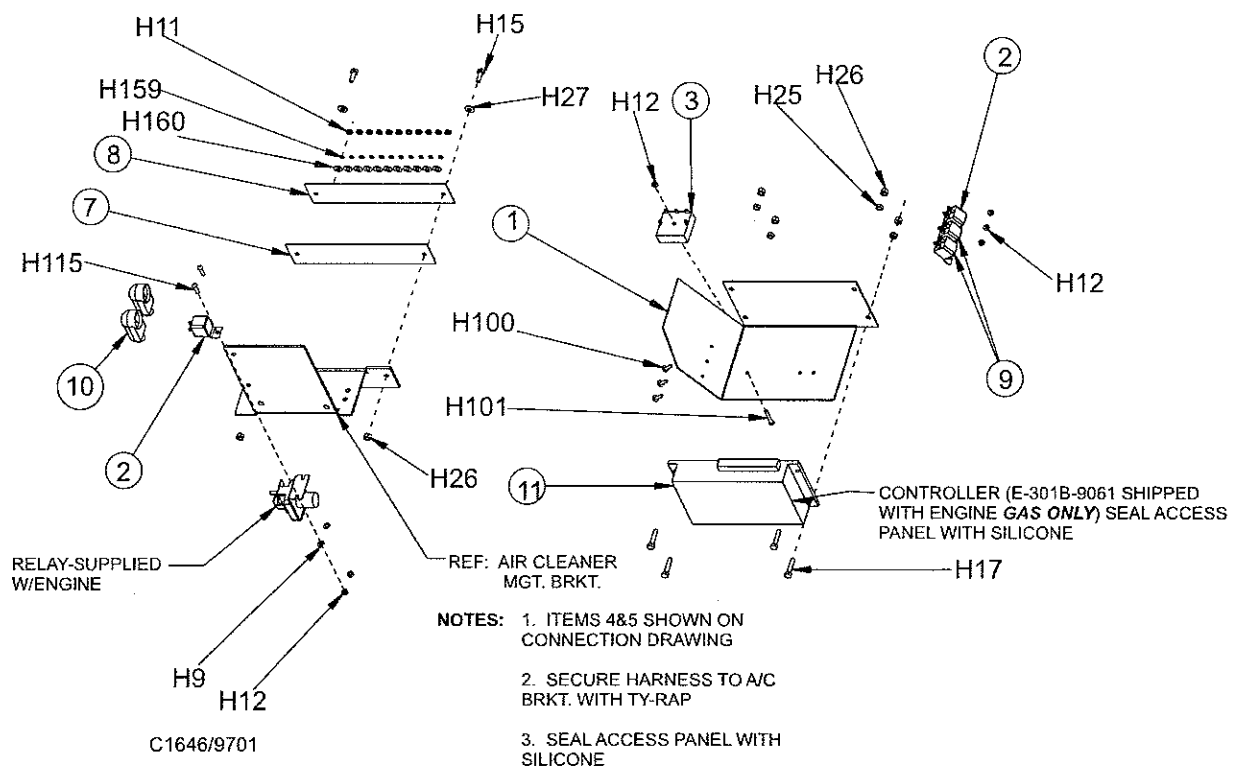
H9	2-00-00426	Flat Washer, .500 x .219 x .063	2
H11	2-00-00605	Nut, Hex MS #10 - 24 x .375 x .125	11
H12	2-00-01246	Nut, Hex Fiber Insert #10-24	6
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	2
H17	2-00-00205	Screw, 1/4-20 x 1.000	4
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	4
H26	2-00-00641	Nut, 1/4 - 20 Insert Fiber	6
H27	2-00-03702	Washer, .625 x .281 x .063	2
H100	2-00-03062	Screw, #10-24 x .625 THM	3
H101	2-00-04897	Screw, #10-24 x 1.250 THM	1
H115	2-00-03063	Screw, #10-24 x .750 THM	2
H159	2-00-00512	Lock Washer	11
H160	2-00-00441	Flat Washer, .438 x .200 x .036	11

+ = USED ON GASOLINE / LP MACHINES ONLY

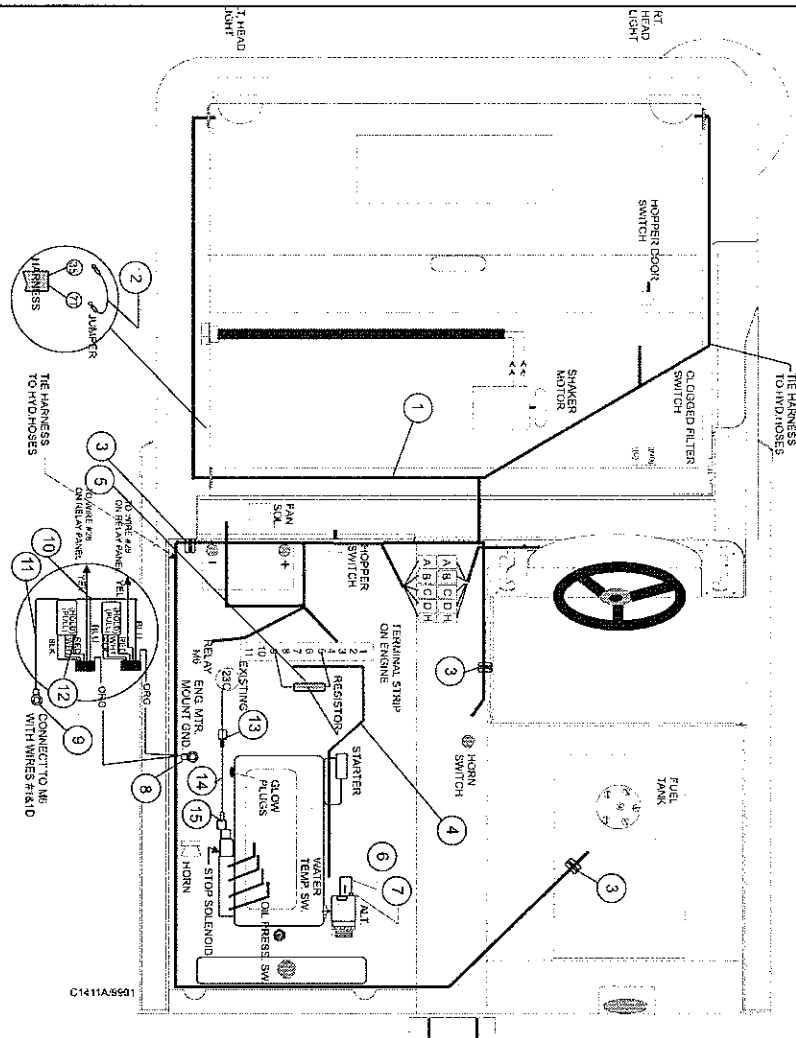
[^] = USED ON DIESEL MACHINES ONLY

C1646/9901

ELECTRICAL ASSEMBLY RELAYS - EXPLODED VIEW



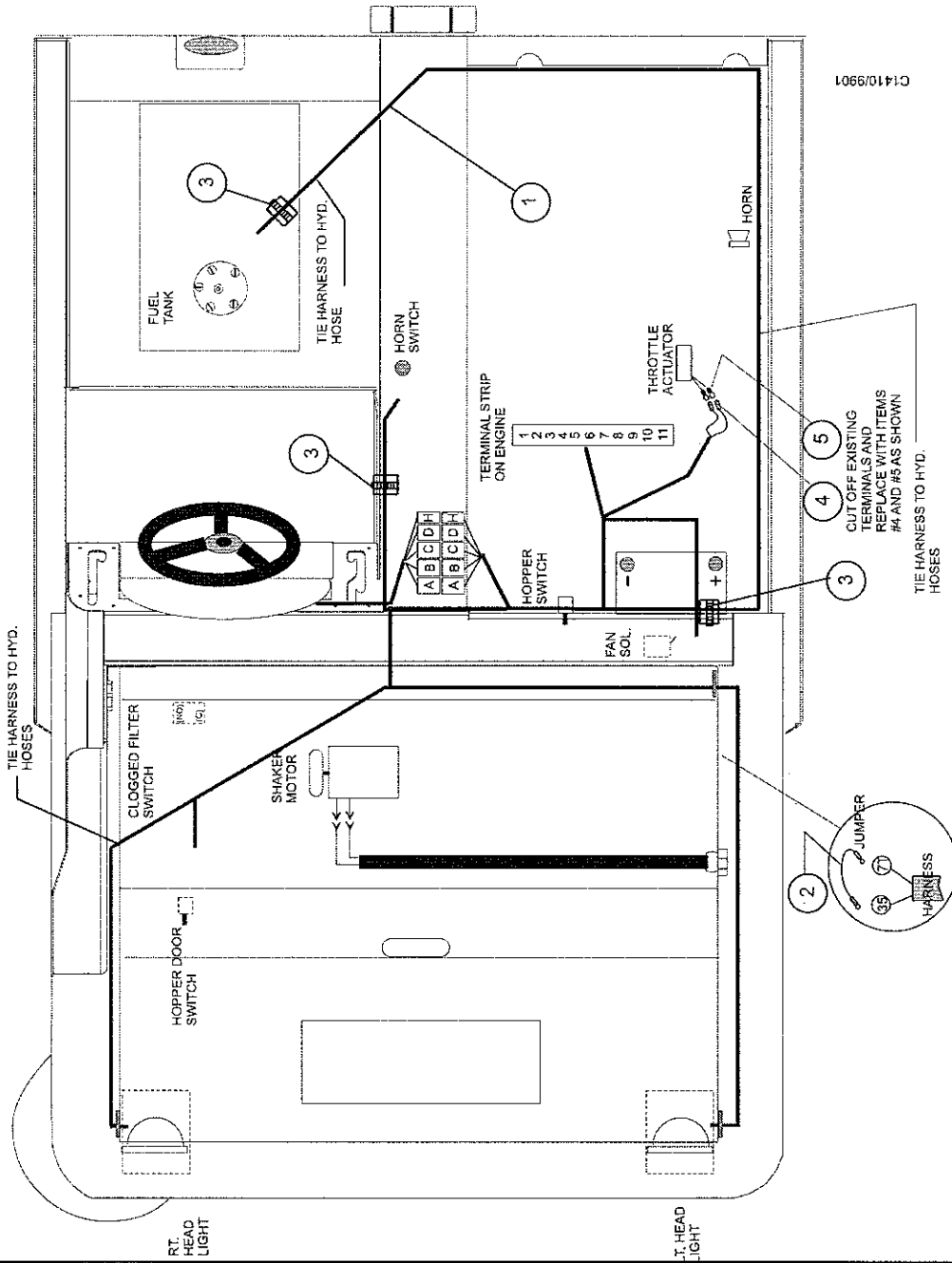
ELECTRICAL HARNESS ROUTING (DIESEL)



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	0895-110	Body Harness	1
2	8-90-07455	Wire	1
3	7-13-07096	Clamp	3
4	0895-114	Engine Harness	1
5	0875-121	Resistor Assembly	1
6	0895-092	Diode, Harness	1
7	2-00-04203	Boot	1
8	2-00-04484	Term. Ring	1
9	2-00-04284	Term. Ring	1
10	2-00-03360	Butt-Splice (Yel.)	1
11	3-61-00043	10 AWG. Blk.	1 ft.
12	2-00-04716	Term. #10 SS	6
13	8-11-00015	Term. .25 FISO	1
14	3-61-00189	16 AWG. Blk.	3 ft.
15	2-00-03418	Term. .25 FISO	1

C1411a/9901

ELECTRICAL HARNESS ROUTING (GAS)



KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	0895-110	Body Harness	1
2	8-90-07455	Wire	1
3	7-13-07096	Clamp	3
4	2-00-04626	.156 F Bullet	2
5	2-00-04578	.156 M Bullet	2

C-1410/9901

DECALS - PARTS LIST

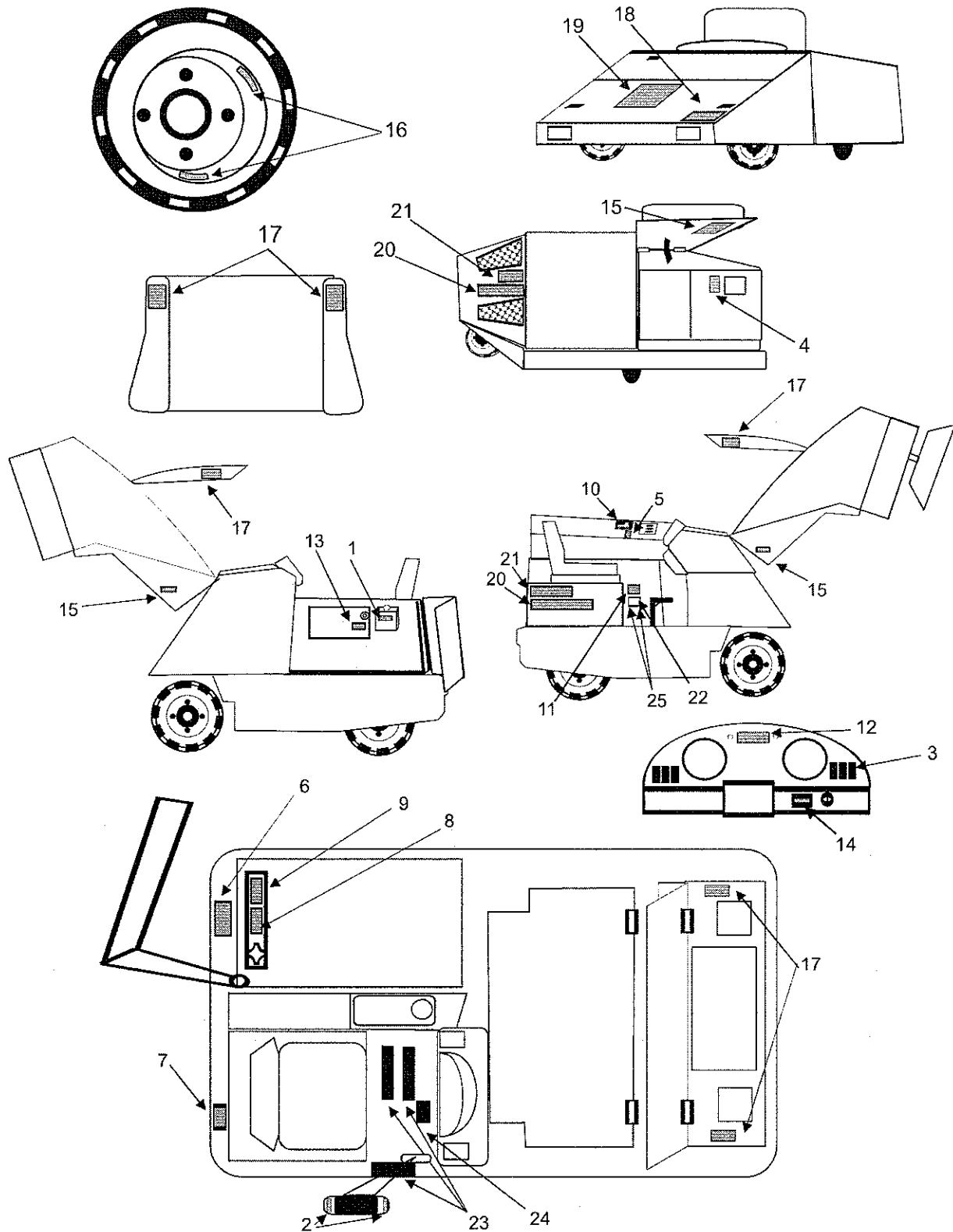
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1*	REF	ATF/Dextron Fluid Only	1
2	8-18-00490	Bi-Directional Pedal/horizontal	1
3<	8-18-00487	Blank Square-Option Covers	1
4*	REF	Gasoline Only (Gas models)	1
	REF	Diesel Fuel Only (Diesel models)	1
5*	REF	Do Not Use with Flammables	1
6*	REF	Exhaust Warning (G, LP, D)	1
7*	REF	Fire Hazard-Fuel Could Explode (G, D)	1
8*	REF	Moving Belts-Stay Clear (G, LP, D)	1
9*	REF	Moving Fan Blade-Stay Clear (G, LP, D)	1
10	8-18-00505	Throttle	1
11*	REF	Patent/Patents Pending	1
12*	REF	Read Operator's Manual	1
13*	REF	Surface Hot-Stay Clear (G, LP, D)	1
14*	REF	Turn Off-Lock Wheel	1
15*	REF	Cover/Hopper Could Close	3
16	REF	Split Rim (pneumatic tires)	3
17	REF	Pinch Point-Stay Clear	6
18	8-18-00527	ALTO	1
19	8-18-00525	American-Lincoln (medium)	1
20	8-18-00524	American-Lincoln (small)	2
21	8-18-00529	MPV 60	1
22	REF	Serial Plate	1
23	7-50-05136	Non-Skid	3
24	8-50-05055	Non-Skid	1
25	2-00-04115	Rivets	2

*Contained in Warning Decals Kit: 0760-859

<Can be ordered separately but is also included in 0760-859

C1440A/1003

DECALS - EXPLODED VIEW



TOTAL STEEL PACKAGE - PARTS LIST

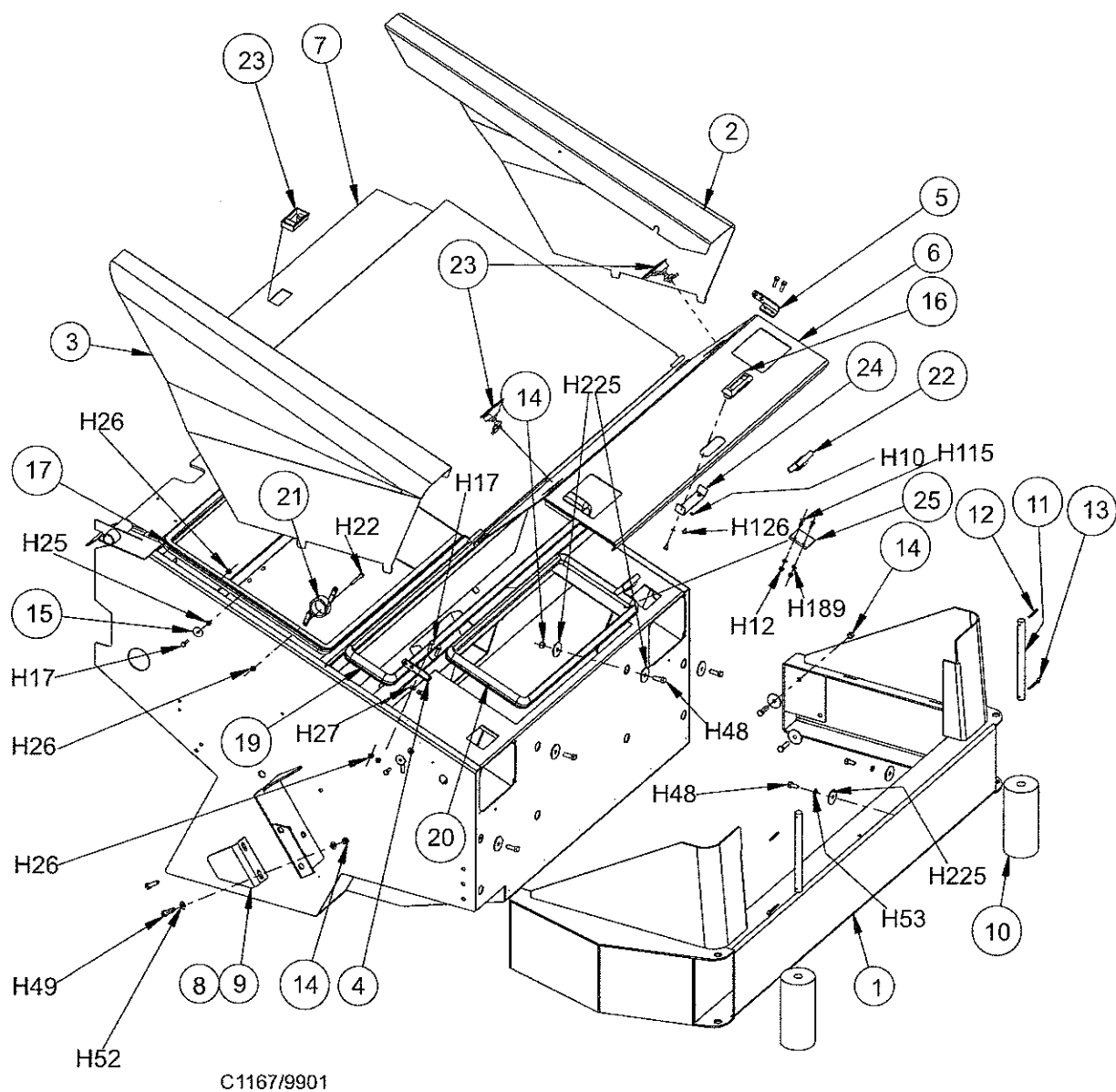
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-08-07063	Bumper, Front	1
2	8-16-07378	Side Cover (LH)	1
3	8-16-07377	Side Cover (RH)	1
4	8-08-00850	Bracket (RH)	1
5	8-08-00851	Bracket (LH)	1
6	8-16-07402	Front Cover	1
7	8-16-07401	Top Cover	1
8	8-08-00852	Bracket, Bumper Guide (RH)	1
9	8-08-00853	Bracket, Bumper Guide (LH)	1
10	8-66-05013	Roller Bumper	2
11	8-70-05304	Pin, Roller Bumper	2
12	2-00-02444	Roll Pin, 3/16 x 1.750	2
13	2-00-02436	Cotter Pin	2
14	2-95-04182	Nut, Fiber	12
15	7-23-03092	Washer	4
16	8-31-06078	Handle	1
17	8-29-00240	Gasket	1
18			
19	8-29-00278	Gasket	1
20	8-29-00279	Gasket	1
21	8-10-00027	Cable	1
22	8-08-00886	Bracket-Latch	2
23	8-41-00040	Latch, Top Cover	3
24	8-79-00098	Strap, Handle	1
25	8-05-07091	Latch Bar	2

HARDWARE USED:

H10	2-00-00519	Lock Washer, # 10 Med. HS	2
H12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	8
H22	2-00-02589	Screw, 1/4-20 x 2.000 HHC	2
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	4
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	8
H27	2-00-03702	Washer, .625 x .281 x .063	4
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	12
H49	2-00-00209	Screw, 3/8-16 x 1.250 HHC	4
H52	2-00-00402	Flat Washer, .750 x .390 x .094	4
H53	2-00-02310	Lock Washer, Helical Spring 3/8 Med.	4
H115	2-00-03063	Screw, #10-24 x .750 THM	2
H126	2-00-03466	Screw, #10-16 x .500	2
H189	2-00-00460	Flat Washer, .437 x .192 x .031-s	2
H225	2-00-04851	Washer, Engine Mount	16

C-1167/9901

TOTAL STEEL PACKAGE - EXPLODED VIEW

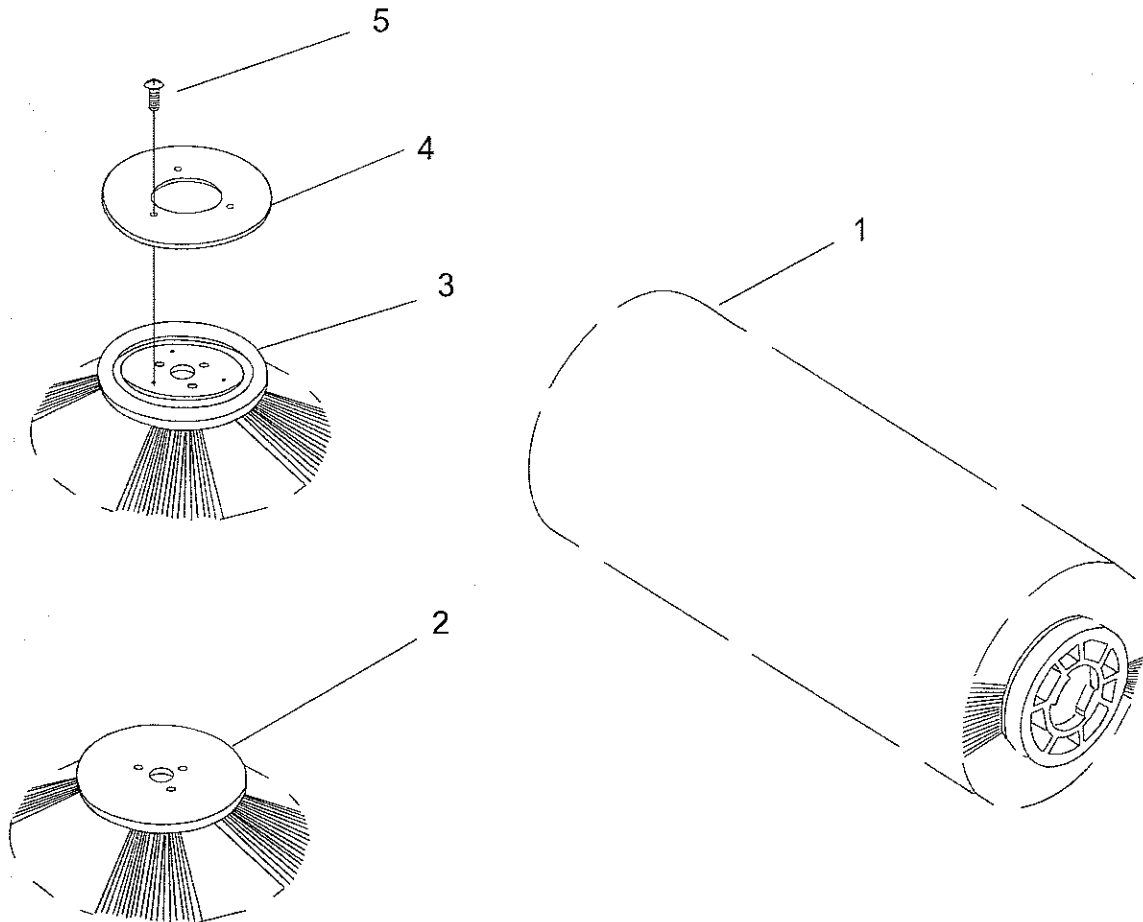


NOTES

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BROOMS OPTION



C1158

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-08-03217	Proex and Wire Main Broom	Ref.
1	8-08-03219	Nylon Main Broom	Ref.
1	8-08-03220	Nylon, High Density Main Broom	Ref.
1	8-08-03221	Fiber and Wire High Density Main Broom	Ref.
1	8-08-03218	Poly and Wire Main Broom	Ref.
1	8-08-03232	Nylon	Ref.
2	8-08-03212	Black Prolene Side Broom	Ref.
2	8-08-03211	Nylon Side Broom	Ref.

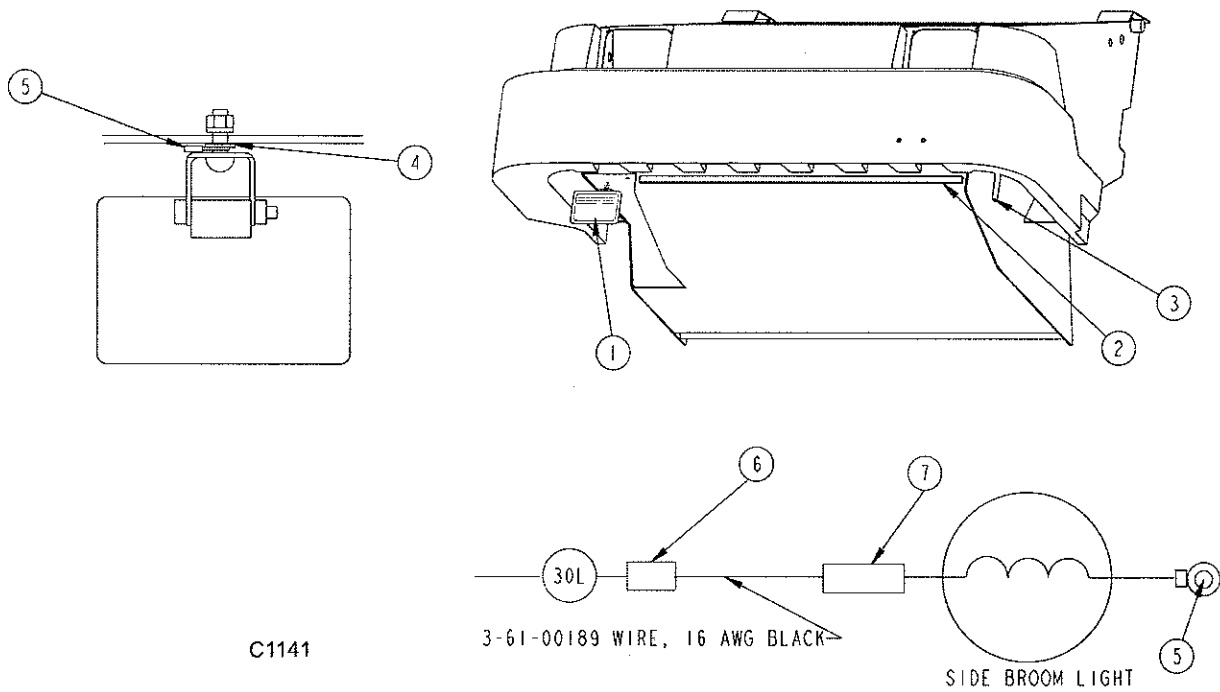
0880-439

Wire Bristle Side Broom Option

3	8-08-03199	Wire Side Broom	1
4	8-58-05248	Plate	1
5	2-00-04121	Screw #10 - 13 x .750 RHW	3

C1158

SIDE BROOM SPOTLIGHT



Side broom spotlight
OPTION NO. 0880-594

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-40-05049	Light	1
2	8-20-06038	Duct, Wire	1
3	8-20-06037	Duct, Wire	1
4	2-00-02303	Washer, Internal Lock	1
5	2-00-04282	Ring Terminal	1
6	2-00-04578	Terminal	1
7	2-00-01128	Butt Splice	1

C1141/9901

SKIRTED VACUUMIZED SIDE BROOM - PARTS LIST

OPTION 0880-607
0880-712 TOTAL STEEL

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-33-05144	Broom Guard	1
*	8-33-05146	Broom Guard	1
2^	8-08-00864	Bracket, Broom Guard	1
3	8-25-08216	Flap	1
*	8-25-08224	Flap	1
4	8-25-08266	Flap	1
*	8-25-08227	Flap	1
5^	8-13-07155	Clamp	1
6^	8-13-07156	Clamp	1
7^	8-13-07157	Clamp	3
8^	8-13-07158	Clamp	2
9^	8-13-07159	Clamp	1
10^	8-03-02043	Hose Adapter	2
11^	8-33-02357	Hose	1
12^	8-29-00253	Gasket	2
13^	2-00-02217	Clamp, Hose	2
14^	2-00-05261	Insert - 1/4 - 20	10
15^	2-00-05347	Insert - 3/8 - 16	8

* USED ON TOTAL STEEL MACHINES

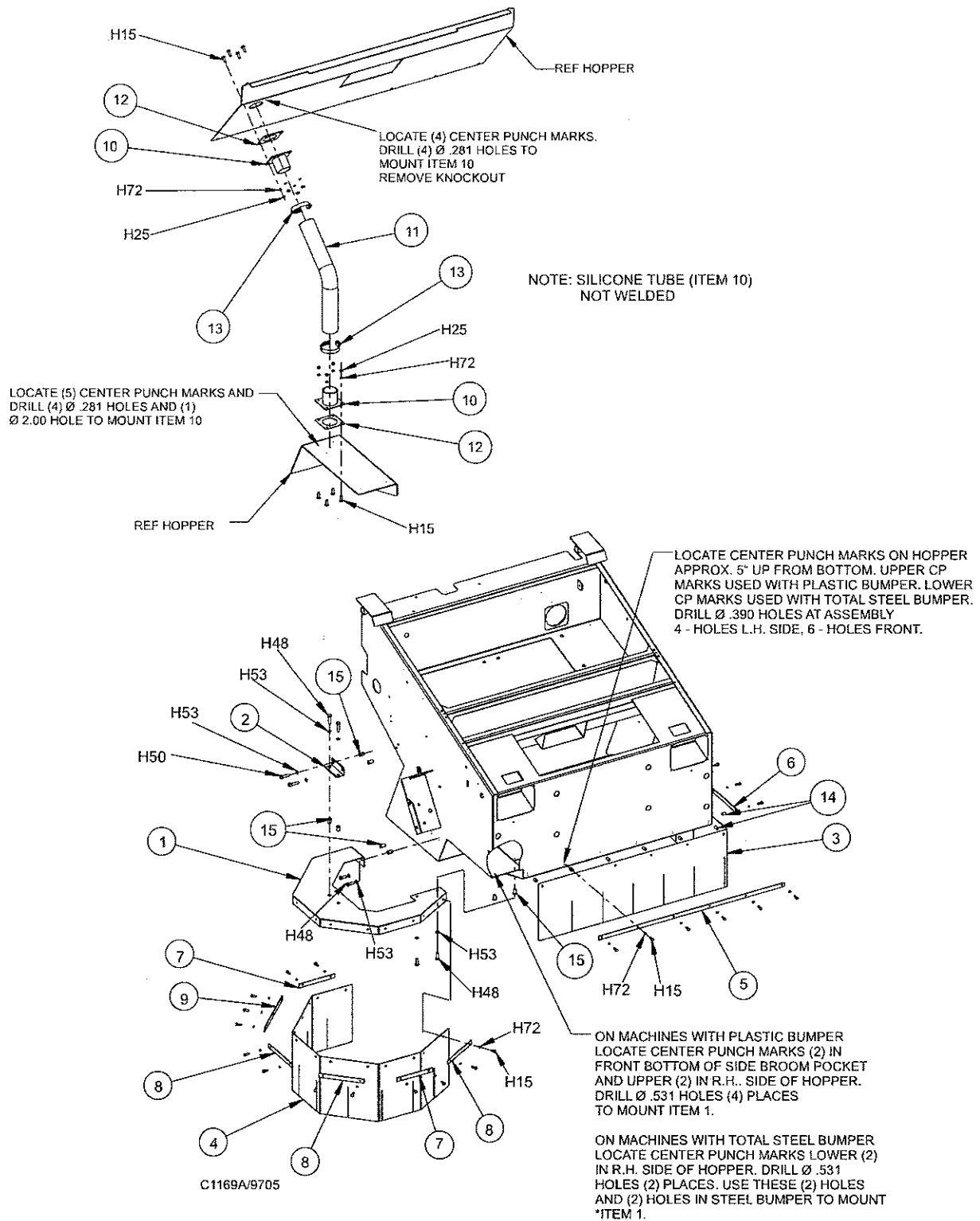
^ USED ON BOTH TOTAL STEEL AND REGULAR MACHINES

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	31
H25	2-00-00594	Nut, Hex 1/4- 20 x .437 x .218	8
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	5
H50	2-00-00234	Screw, 3/8-16 x 1.500 HHC	2
H53	2-00-02310	Lockwasher Split .375 Cad. Pl.	6
H72	2-00-00518	Lock Washer, Helical Spring	31

C-1169a/9901

SKIRTED VACUUMIZED SIDE BROOM - EXPLODED VIEW



BACK-UP ALARM OPTION - PARTS LIST

Back-up alarm OPTION NO. 0880-593

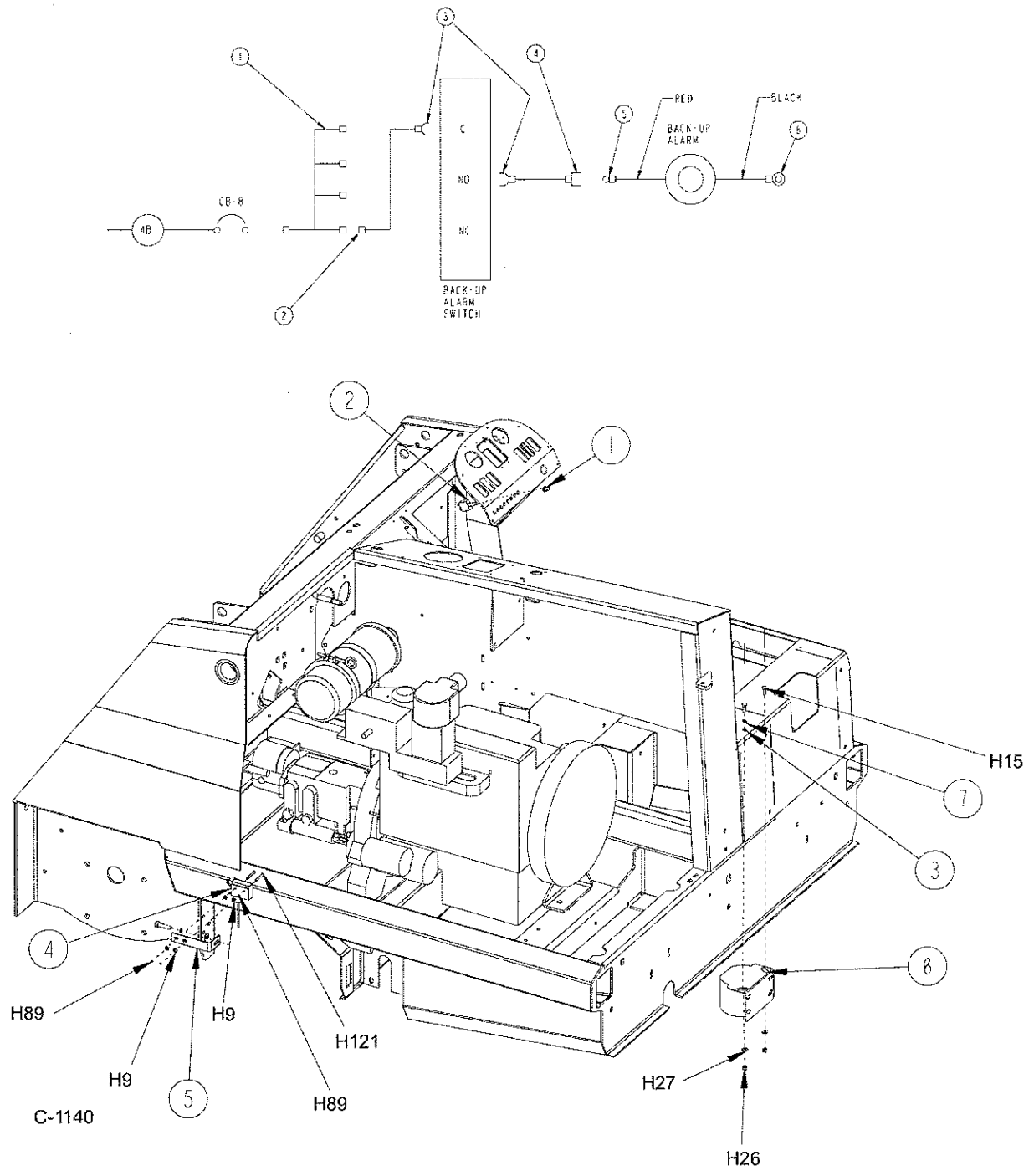
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-11-00044	Cap, Instrument Panel (Boot)	1
2	8-64-00008	Circuit Breaker, 15 amp	1
3	2-00-00501	Washer, Internal Lock	1
4	8-82-00058	Switch	1
5	8-08-02040	Bracket, Back Up Alarm Switch	1
6	8-32-09009	Alarm, Back Up	1
7	2-00-00828	Ring Terminal	REF.
8	8-90-07434	Wing Wire	1
9	8-11-00015	Terminal	1
10	2-00-04742	Terminal	2
11	2-00-04626	Terminal	1
12	2-00-04578	Terminal, Male Bullet	1
13	2-00-00828	Ring Terminal	1

HARDWARE USED:

H9	2-00-00426	Flat Washer, .500 x .219 x .063	4
H15	2-00-00221	Screw, 1/4 - 20 x .750 HHC	2
H26	2-00-00641	Nut, 1/4 - 20 Insert Fiber	2
H27	2-00-03702	Washer, .625 x .281 x .063	2
H89	2-00-01372	Nut Fiber Insert, #8 - 32 Steel	4
H121	2-00-00090	Screw, #8 - 32 x 1.500 RHM	2

C1140/9901

BACK-UP ALARM OPTION - EXPLODED VIEW



BRAKE LIGHT OPTION - PARTS LIST

OPTION NO. 0880-617

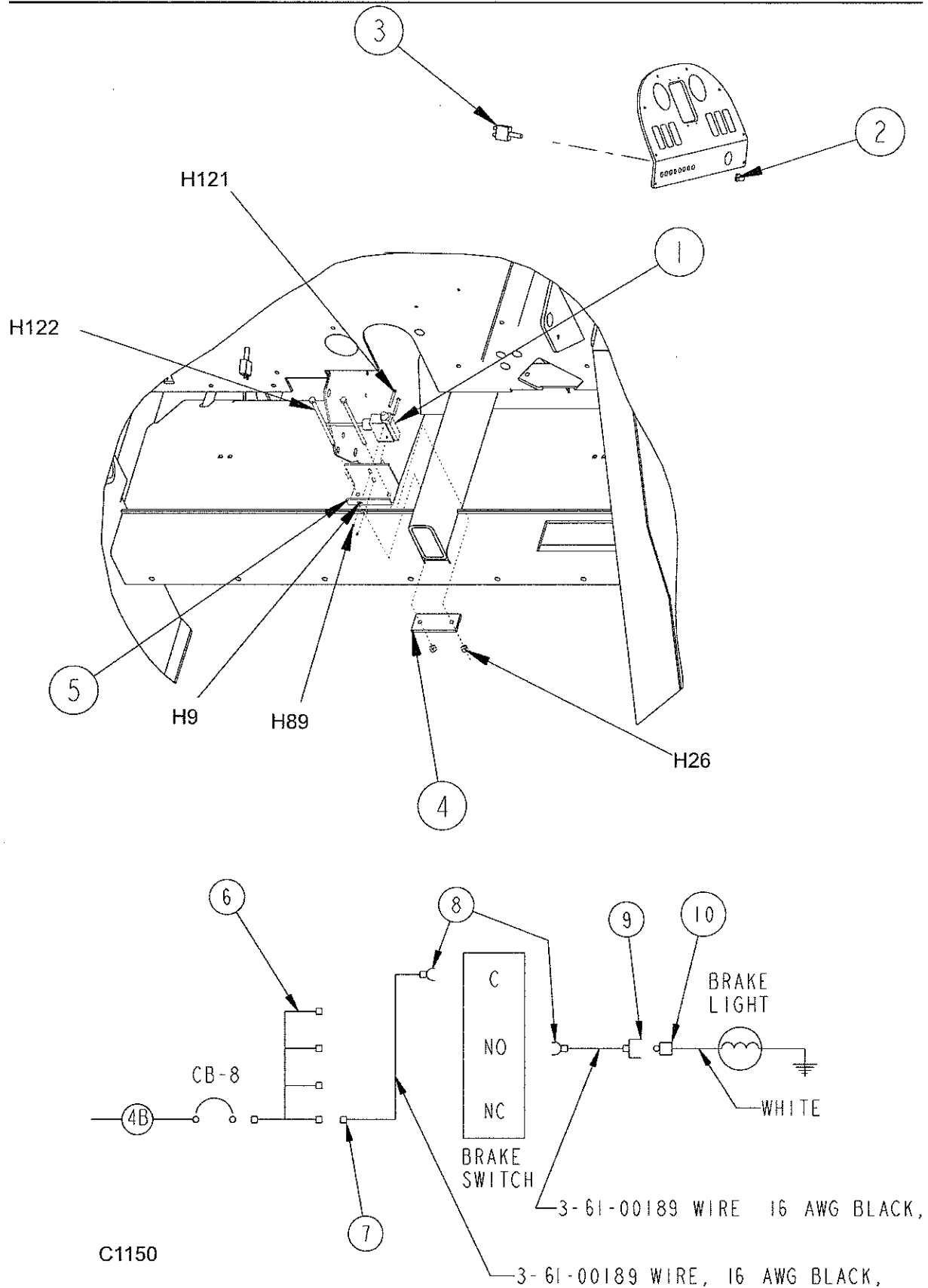
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-82-00058	Switch	1
2	8-11-00044	Cap, Instrument Panel Boot	1
3	8-64-00008	Circuit Breaker, 15 amp	1
4	8-13-07132	Clamp, Brake Switch	1
5	8-08-00818	Bracket, Brake Switch	1
6	8-90-07434	Wing Wire	1
7	8-11-00015	Terminal	1
8	2-00-04742	Terminal	2
9	2-00-04626	Terminal	1
10	2-00-04578	Terminal	1
	2-00-05291	Bulb, Brake Light	(Service Part)

HARDWARE USED:

H9	2-00-00426	Flat Washer, .500 x .219 x .063	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	2
H89	2-00-01372	Nut, Fiber Insert #8-32 Steel	2
H121	2-00-00090	Screw, #8-32 x 1.500 RHM	2
H122	2-00-05216	Screw, 1/4-20 x 5.000 HHC	2

C1150/9901

BRAKE LIGHT OPTION - EXPLODED VIEW



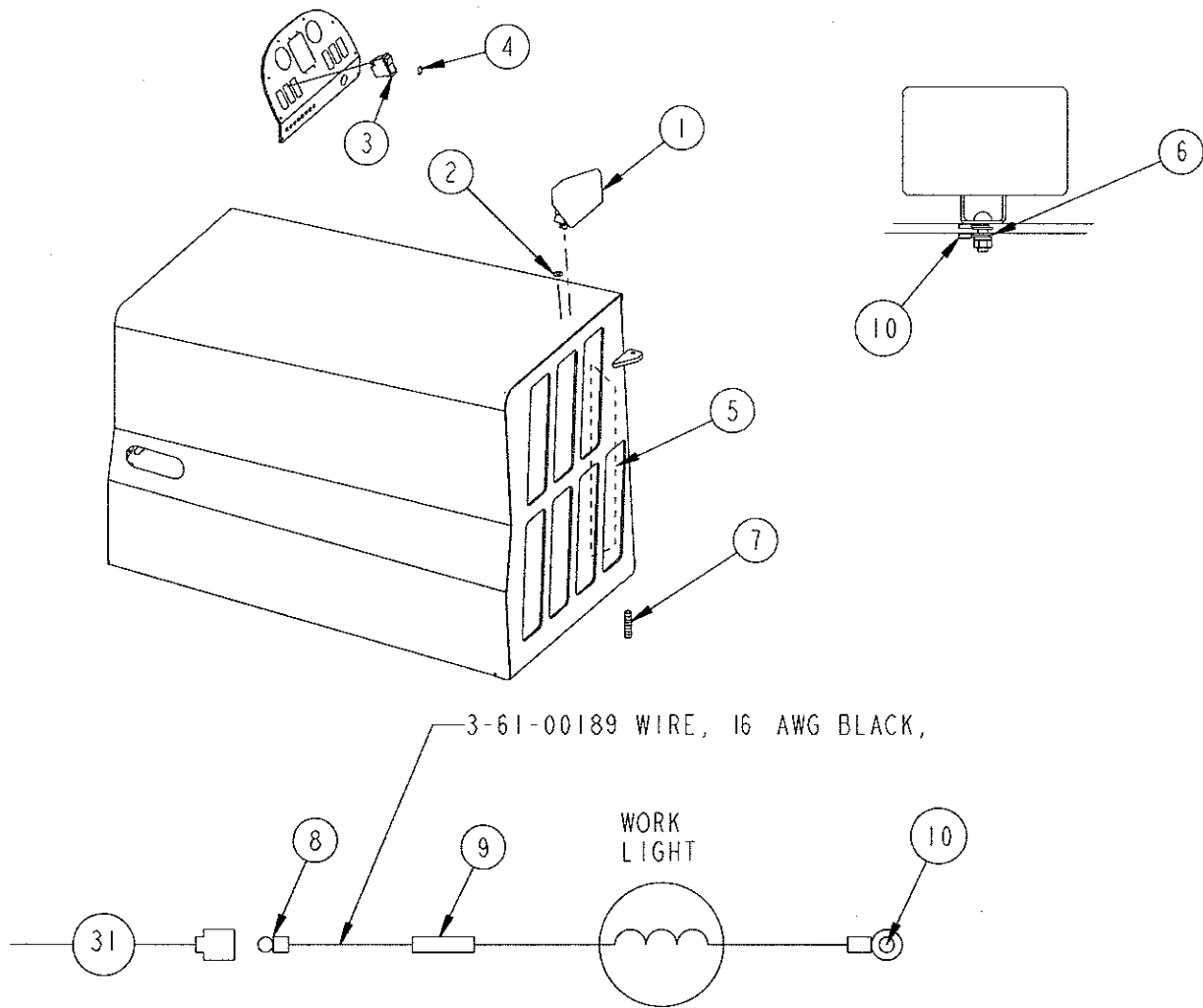
REAR WORK LIGHT OPTION - PARTS LIST

OPTION NO. 0880-595

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-40-05049	Light	1
2	2-00-00491	Grommet	2
3	8-82-00053	Switch	1
4	8-41-03004	Lens, Work Light	1
5	8-20-06037	Duct, Wire	1
6	2-00-02303	Washer, Internal Lock	1
7	3-61-02014	Convolute Tube	1
8	2-00-04578	Terminal	1
9	2-00-01128	Butt Splice	1
10	2-00-04282	Ring Terminal	1

C1142/9901

REAR WORK LIGHT OPTION - EXPLODED VIEW



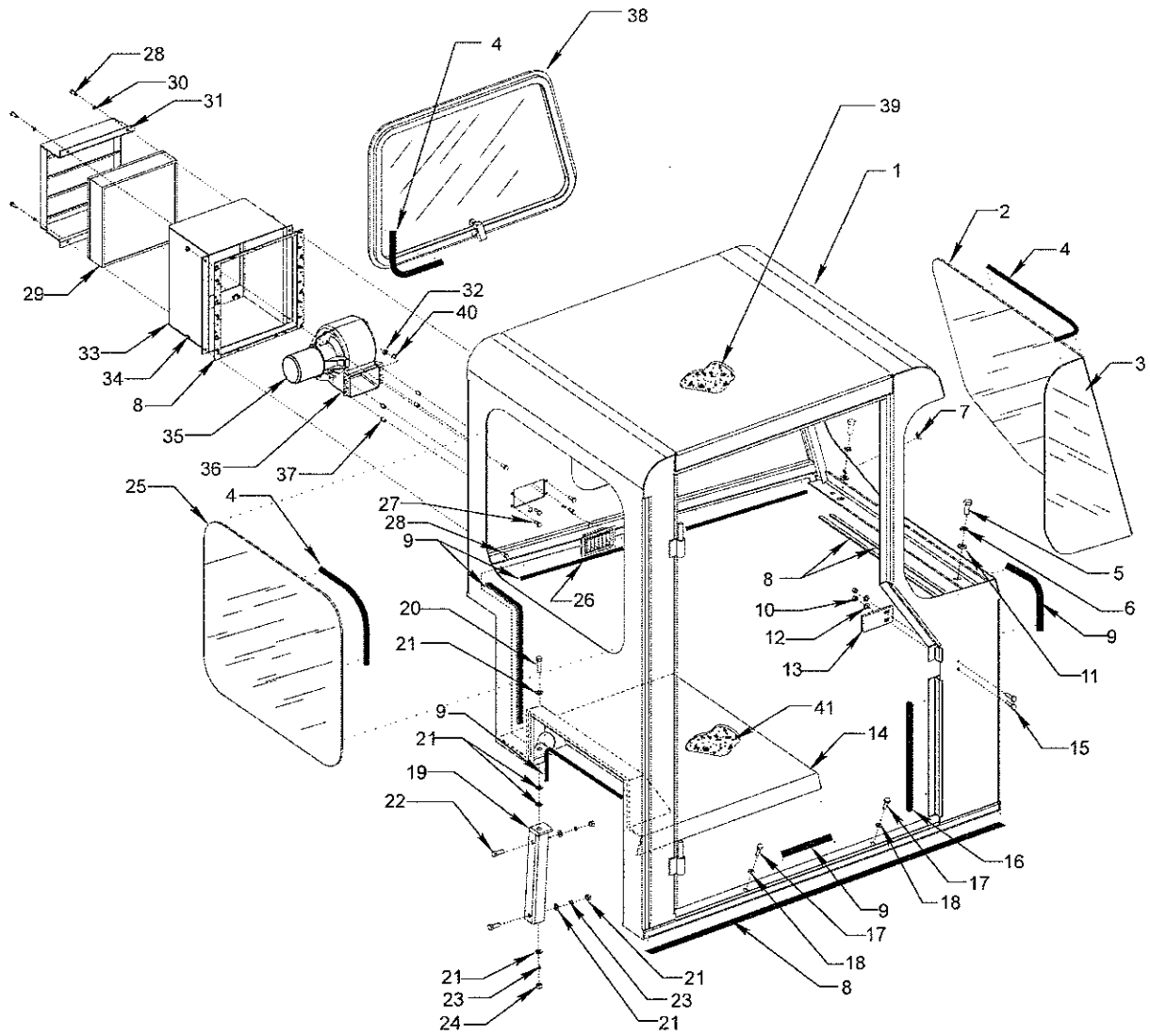
C1142

CAB OPTION - PARTS LIST**OPTION 0880-602 SHT. 1 & 2**

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-09-05001	Cab Weldment	1
2	8-90-01003	Window, Front	1
3	8-90-01004	Window, Side	1
4	3-73-00082	Seal, Glass .13 St'l x .19/.25 Glass	35'
5	2-00-00240	Screw, 1/2-13 x 1.250 HHC	2
6	2-00-02312	Lock Washer, 1/2 H.S. Med.	2
7	2-00-04604	Plug Button	1
8	3-73-00056	1/8 x 1/2 C.C. Spring. w/Adhesive	18'
9	3-73-00075	Gasket, Straight Seal	15'
10	2-00-00644	Nut, Hex 5/16-18 Fiber Insert	2
11	2-00-00405	Flat Washer, 1.063 x .531 x .094	2
12	2-00-00409	Flat Washer, .687 x .344 x .062	2
13	8-45-05009	Lug, Striker	1
14	8-16-07365	Seat Deck	1
15	2-00-00207	Screw, 5/16-18 x 1.250 HHC	2
16	3-73-00061	Gasket, 90° Seal	13'
17	2-00-05315	Screw, 1/4-14 x 1.000 TEKS	2
18	2-00-03702	Flat Washer, .625 x .281 x .063	4
19	8-81-00178	Brace	1
20	2-00-00234	Screw, 3/8-16 x 1.500 HHC	1
21	2-00-00402	Flat Washer, .750 x .390 x .094	6
22	2-00-00233	Screw, 3/8-16 x 1.000 HHC	2
23	2-00-02310	Lock Washer, 3/8 H.S. Med.	3
24	2-00-02360	Nut, Hex 3/8-16 x .562 x .328	3
25	8-90-01005	Window, Rear	1
26	8-18-03025	Adj. Louver Vent Cover	1
27	2-00-03042	Screw, 1/4-20 x 1.500 HSHC-Black	4
28	2-00-00221	Screw, 1/4-20 x .750 HHC	10
29	8-24-04141	Filter	1
30	2-00-00518	Lock Washer, 1/4 H.S. Med.	8
31	8-33-05140	Clamp, Filter	1
32	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	7
33	8-33-05139	Blower Housing	1
34	2-00-00641	Nut, Fiber Insert, 1/4-20	9
35	0882-055	Motor	1
36	8-23-00015	Blower Assembly	1
37	8-75-01205	Spacer	4
38	8-90-01001	Canopy Window	1
39	8-34-09026	Cab Insulation, Top	1
40	2-00-00501	Lockwasher, 1/4 Int.	1
41	8-34-09019	Insulation Seat Deck	1
42	8-34-09036	Insulation-Cab Left Side Interior	1

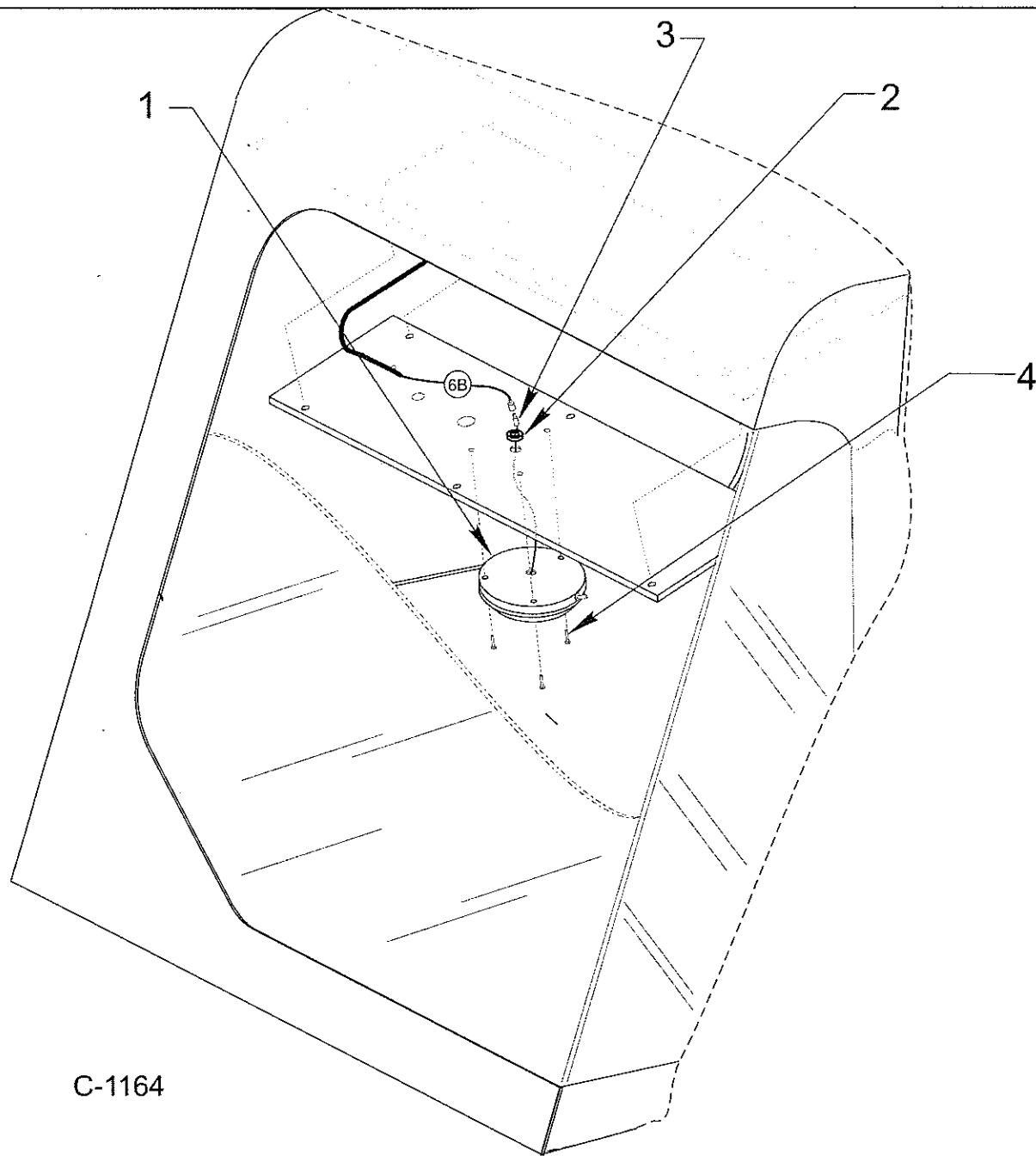
C-1191/9901

CAB OPTION - EXPLODED VIEW



C-1191

CAB DOME LIGHT OPTION



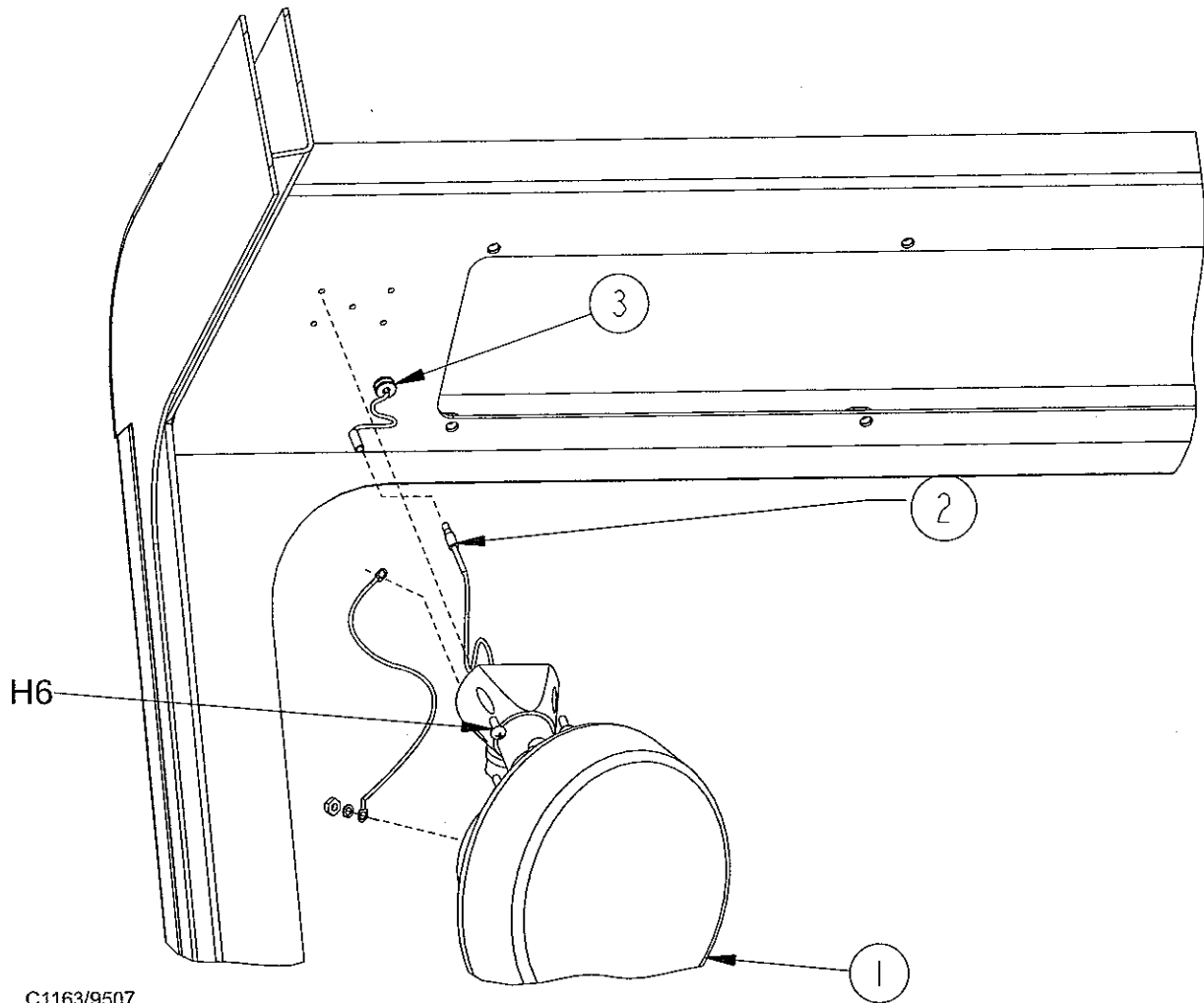
C-1164

OPTION NO. 0880-616

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-40-05031	Dome Light	1
2	2-00-00491	Grommet	1
3	2-00-04578	Terminal, .156 Male Bullet	1
4	2-00-00044	Screw, # 8-32 x .500 RHM	3

C1164/9901

CAB FAN OPTION



OPTION NO 0880-615

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	8-23-00016	Defroster Fan	1
2	2-00-04578	Terminal, .156 Male Bullet	1
3	2-00-04200	Grommet	1
HARDWARE USED			
H6	2-00-00049	Screw, #10-24 x .500 RHM	4

C1163-9507

CAB DOOR - PARTS LIST

OPTION 0880-602 SHT 2

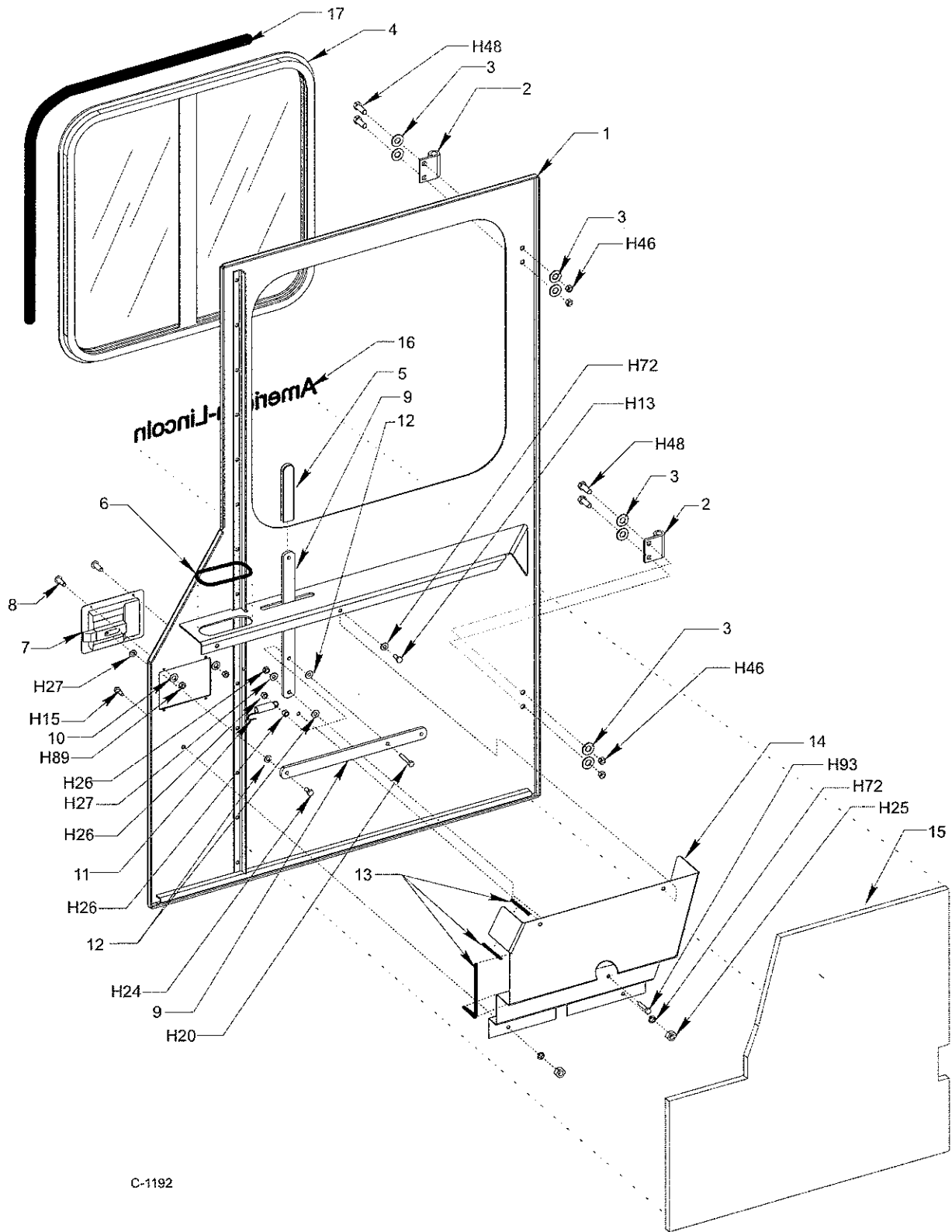
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-19-08065	Door	1
2	8-32-00048	Hinge	2
3	2-00-00419	Flat Washer .625 x .328 x .032	8
4	8-90-01002	Sliding Window	1
5	7-31-06066	Handle Grip 1.00 x .250	1
6	3-73-00054	Edging	1'
7	8-41-00062	Door Latch	1
8	2-00-00044	Screw #8-32 x .500 RHM	4
9	8-31-06089	Latch Handle	2
10	2-00-00460	Flat Washer, .437 x .192 x .031	4
11	7-76-00051	Spring	1
12	7-23-03048	Washer, Bevel	3
13	3-73-00024	Edging	1.5'
14	8-16-07368	Cover, Door Linkage	1
15	8-34-09027	Insulation, Cab Door	1
16			
17	3-73-00082	Seal, Glass.13 St'l x .19/.25 Glass	35'

HARDWARE USED:

H13	2-00-00054	Screw, 1/4-20 x .500 RHM	1
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	1
H20	2-00-00203	Screw, 1/4-20 x 1.500 HHC	1
H24	2-00-00220	Screw, 1/4-20 x .625 HHC	1
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	3
H27	2-00-03702	Washer, .625 x .281 x .063	4
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	4
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	4
H72	2-00-00518	Lock Washer, Helical Spring	4
H89	2-00-01372	Nut, Fiber Insert #8-32 Steel	4
H93	2-00-00222	Screw, 1/4-20 x 1.250 HHM	1

C-1192/9901

CAB DOOR - EXPLODED VIEW



C-1192

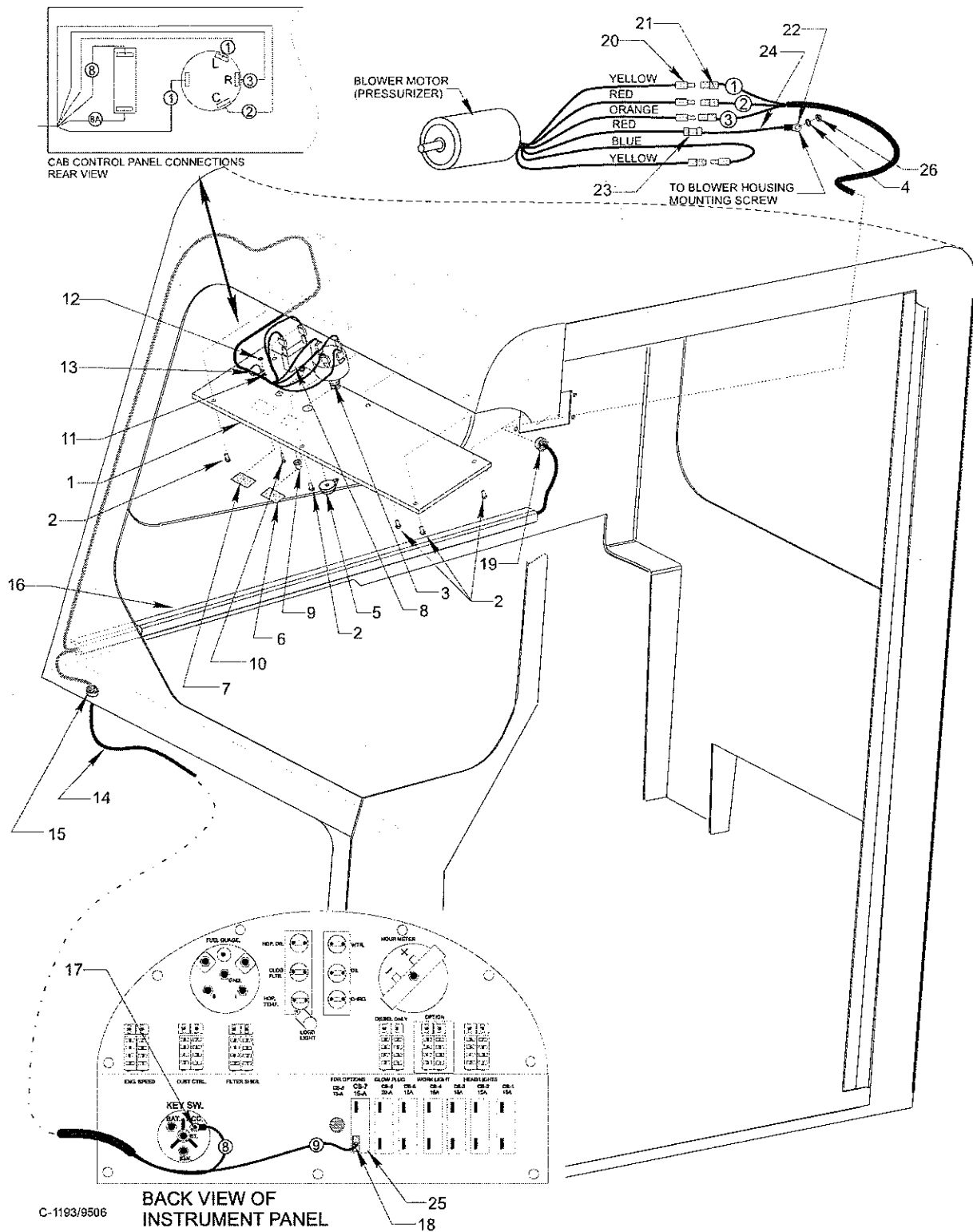
CAB ELECTRICAL ASSEMBLY - PARTS LIST

OPTION 0880-602 SHT. 1

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-16-07364	Access Cover	1
2	2-00-00054	Screw, 1/4-20 x .500 RHM	8
3	7-82-00011	Switch, 4 Position Rotary w/Mtg. Nut	1
4	2-00-00501	Lock Washer, 1/4 INT.	1
5	7-39-00019	Knob	1
6	8-18-00449	Decal, Fan	1
7	8-18-00422	Decal, CB-11	1
8	7-64-00022	Circuit Breaker, 20 Amp.	1
9	8-11-00044	Boot	1
10	2-00-00039	Screw, #10-24 x 1.000 RHM	1
11	2-00-00605	Nut, Hex MS #10-24 x .375 x .125	1
12	2-00-01246	Nut, Hex Fiber Insert, #10-24	1
13	2-00-04937	Wire Tie	1
14	0895-117	Cab Harness	1
15	2-00-01915	Grommet	1
16	8-20-06038	Wire Duct, 36"	1
17	2-00-04281	Terminal, #10Stud, 14-16ga. Ins. Ring	1
18	2-00-03418	Terminal, 1/4 Spade (Female Insulated)	1
19	2-00-00491	Grommet	1
20	2-00-04578	Terminal, Bullet (Male)	3
21	2-00-04626	Terminal, Bullet (Female)	3
22	2-00-00828	Terminal, 1/4 Non-Ins Ring 14-16 ga.	1
23	2-00-01128	Terminal, Butt Connector	1
24	3-61-00193	16 ga., Red Insulated Wire	1
25	8-64-00008	Circuit Breaker, 15 amp.	1
26	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	1

C-1193/9901

CAB ELECTRICAL ASSEMBLY - EXPLODED VIEW



CAB HEATER OPTION - PARTS LIST

OPTION NO. 0880-603-1

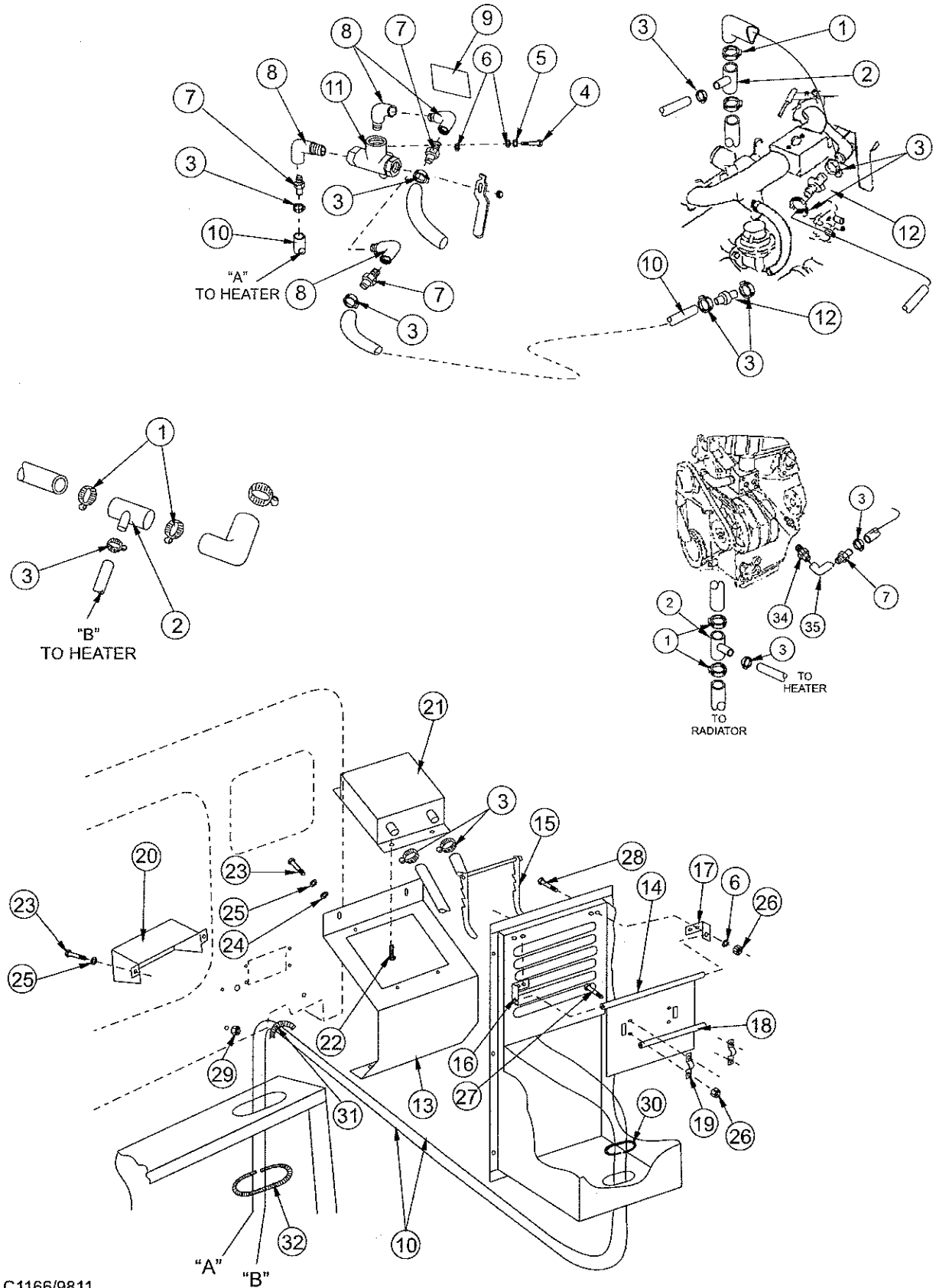
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	2-00-03404	Hose Clamp	2
2	8-03-00055	Adapter Fitting	1
3^	2-00-03407	Hose Clamp	10
3*	2-00-03407	Hose Clamp	6
4	2-00-03059	Screw, #10-24 x .38 RHM	2
5	2-00-00519	Lock Washer #10 Med. H.S.	2
6	2-00-00426	Flat Washer, .500 x .219 x .063	8
7	7-25-02040	Fitting 1/2 NPT x 5/8 Hose	3
8^	2-00-04328	Street Elbow 1/2 NPT	4
8*	2-00-04328	Street Elbow 1/2 NPT	3
9	8-18-00331	Decal - Heater	1
10^	3-71-00125	Hose - Heater 5/8 I.D.	25'
10*	3-71-00125	Hose - Heater 5/8 I.D.	20'
11	8-88-00043	Valve	1
12^	2-00-05318	Fitting - Union, Barb 5/8 I.D. Hose	2
13	8-08-00893	Heater Bracket	1
14	8-33-05141	Blower Housing Door	1
15	8-33-05142	Blower Housing Door Handle	1
16	8-32-00052	Hinge (R.H.)	1
17	8-32-00053	Hinge (L.H.)	1
18	8-55-08135	Cab Heater Door Pivot Pin	1
19	8-13-07094	Conduit Clamp	2
20	8-16-07403	Cover	1
21	8-62-01015	Heater Core	1
22	2-00-01994	Screw, TF/RH #8-15 x .75 Type A	4
23	2-00-00220	Screw, 1/4-20 x .62 HHC	6
24	2-00-03702	F.W. - .625 x .281 x .063	4
25	2-00-00518	L.W. - 1/4 HS Medium	6
26	2-00-01246	Nut, Hex Fiber Insert #10-24	8
27	2-00-00006	Screw, #10-24 x .63 FHM	4
28	2-00-00049	Screw, #10-24 x .50 RHM	4
29	2-00-00641	Nut, 1/4-20 Fiber Insert	2
30	8-21-04015	Edging	1
31	8-21-04034	Edging	1
32	8-21-04039	Edging	1
33*	2-00-02474	Pipe Plug, 1/2 NPT	1
34*	2-00-04638	Nipple 3/8 x 1/2 NPT	1
35*	2-00-04616	45° Elbow 1/2 NPT	1

* = USED ON DIESEL MACHINES ONLY

^ = USED ON GAS MACHINES ONLY

C1166/9901

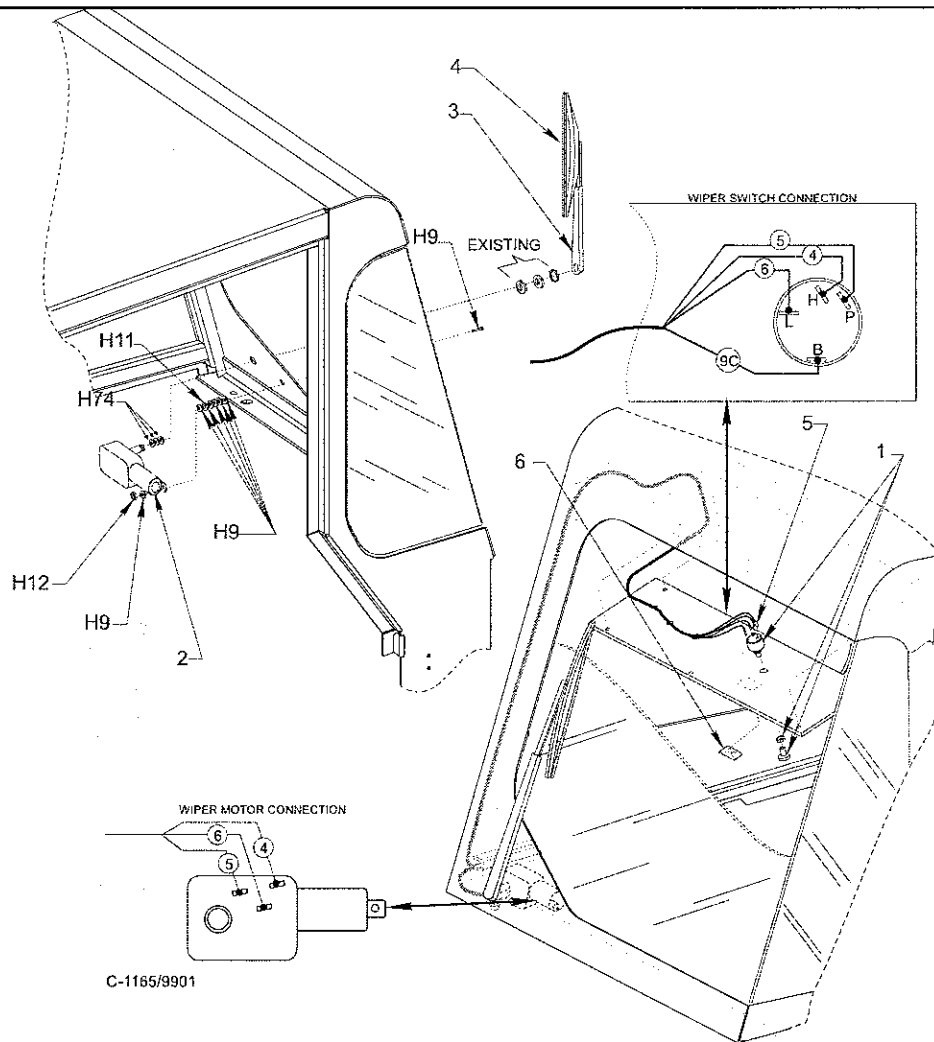
CAB HEATER OPTION - EXPLODED VIEW



C1166/9811

American-Lincoln
MPV 60

CAB WINDSHIELD WIPER OPTION



OPTION NO. 0880-614

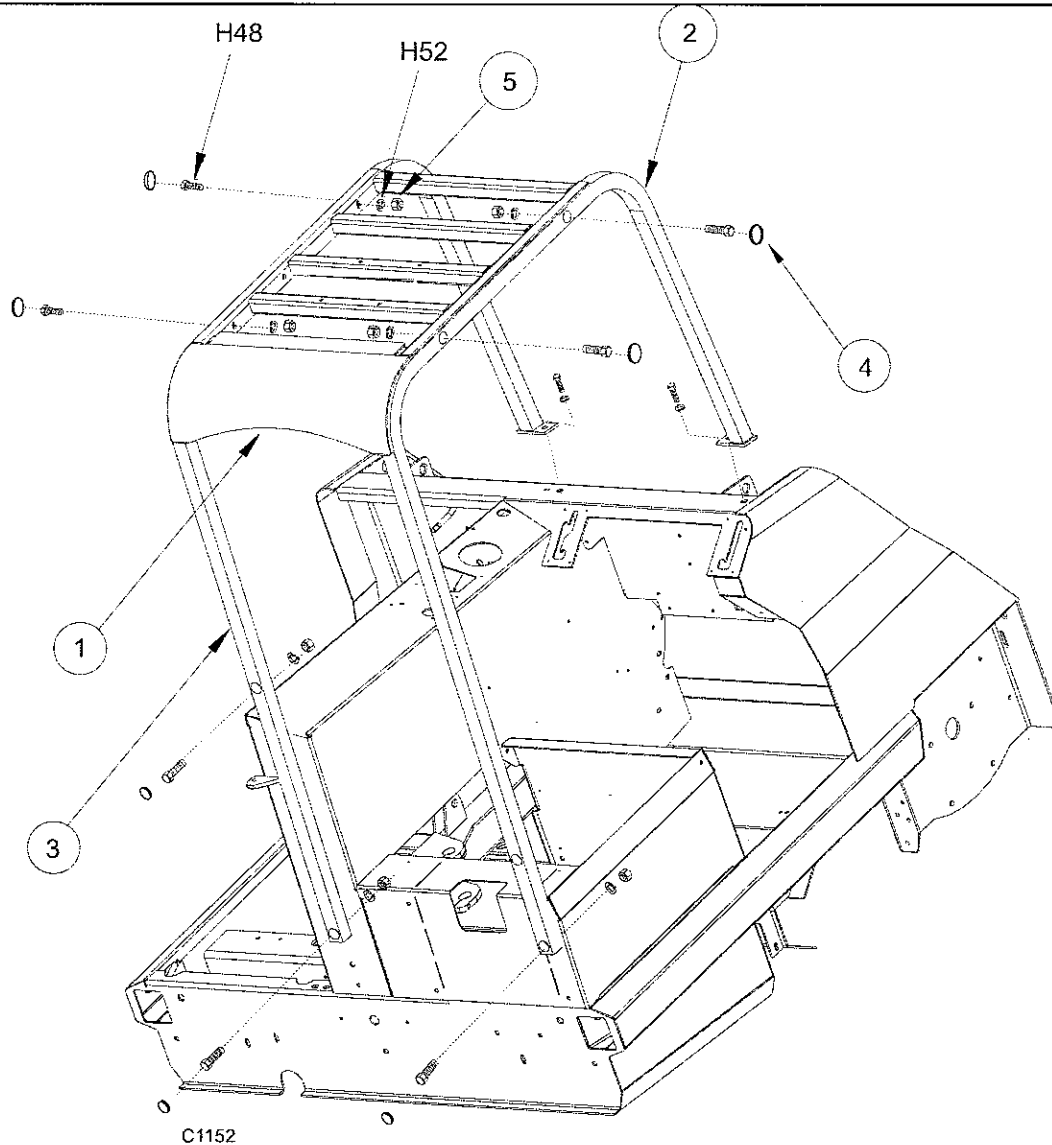
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-82-00061	Wiper Switch	1
2	0882-056	Wiper Motor	1
3	8-03-04315	Wiper Arm	1
4	8-06-03004	Wiper Blade	1
5	2-00-03418	Terminal, .25 FISO Female	3
6	8-18-00424	Decal, Windshield Wiper	1

HARDWARE USED:

H9	2-00-00426	Flat Washer, .500 x .219 x .063	5
H11	2-00-00605	Nut, Hex MS # 10-24 x .375 x .125	1
H12	2-00-01246	Nut, Hex Fiber Insert # 10-24	1
H74	2-00-03170	Flat Washer, 1.500 x .750 x .125	3

C1165/9901

OVERHEAD GUARD OPTION



OPTION NO. 0880-601

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-30-05174	Overhead Guard, Top Weld	1
2	8-30-05172	Overhead Guard, Leg Weld R.H.	1
3	8-30-05173	Overhead Guard, Leg Weld L.H.	1
4	2-00-05134	Plug Button	8
5	2-95-04182	Nut, Fiber	8

HARDWARE USED:

H48	2-00-00233	Screw 3/8 - 16 x 1.000 HHC	2
H52	2-00-00402	Flat Washer, .750 X .390 X .094	4
H57	2-00-00240	Screw, 1/2 - 13 x 1.250 HHC	8
H63	2-00-02312	Lock Washer, 1/2 HS Med.	2

C1152-1/9901

STROBE LIGHT WITH OVERHEAD GUARD OPTION - PARTS LIST

OPTION NO. 0880-600 (Amber Strobe)

OPTION NO. 0880-599 (Red Strobe)

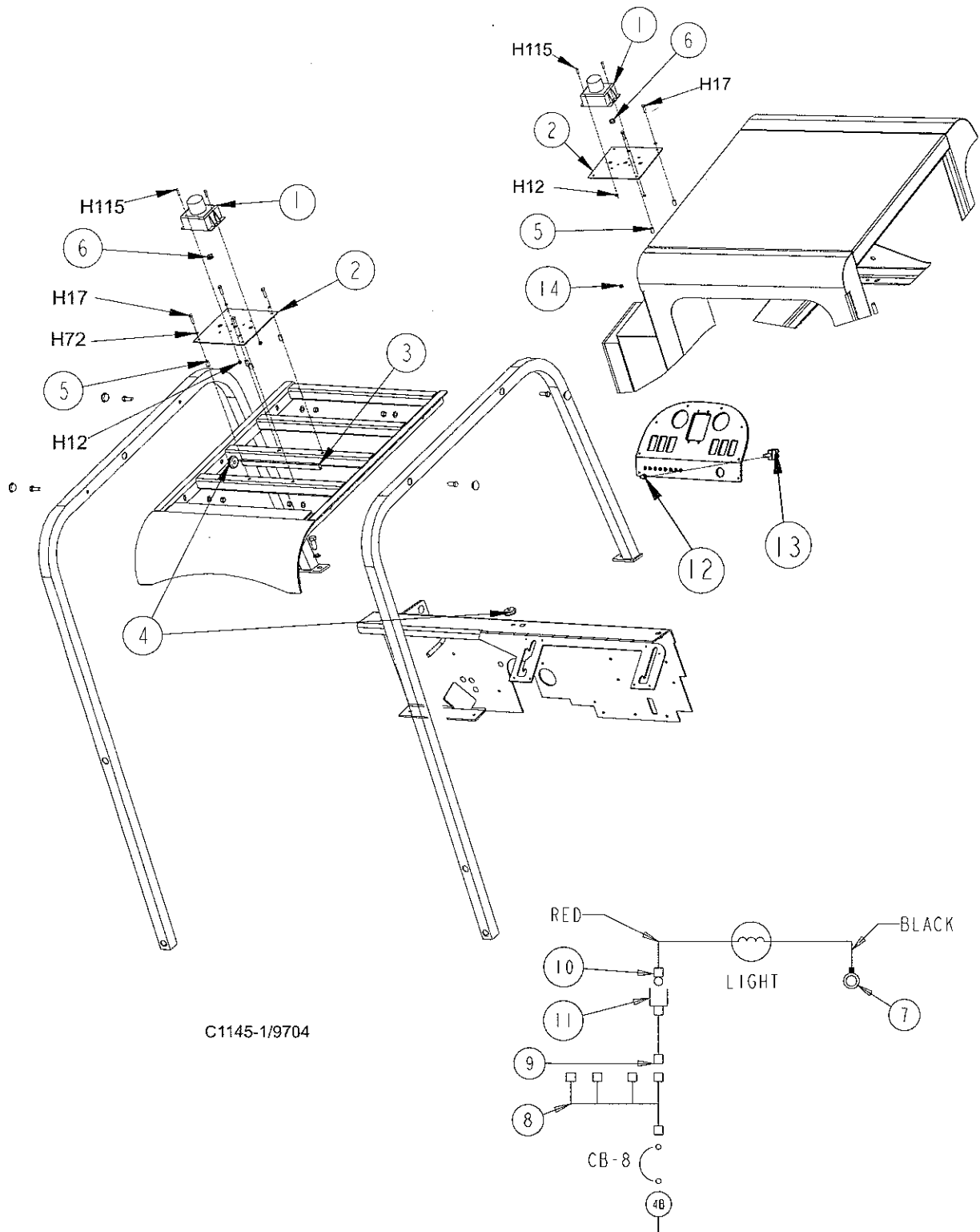
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-40-05036	Strobe, Amber	1
	8-40-05020	Strobe, Red	1
2	8-58-05228	Panel, Light Support	1
3	8-20-06036	Duct, Wire	1
4	2-00-01915	Grommet	2
5	2-00-05261	Threaded Insert	4
6	2-00-00491	Grommet	1
7	2-00-04281	Terminal	1
8	8-90-07434	Wing Wire	1
9	8-11-00015	Terminal	1
10	2-00-04578	Terminal	2
11	2-00-04626	Terminal	2
12	8-11-00044	Cap, Boot	1
13	8-64-00008	Circuit Breaker, 15 amp	1
14	2-00-04200	Grommet	1

HARDWARE USED:

H12	2-00-01246	Nut, Hex Fiber Insert #10-24	4
H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	6
H72	2-00-00518	Lock Washer, Helical Spring	4
H115	2-00-03063	Screw, #10-24 x .750 THM	4

C1145/9901

STROBE LIGHT WITH OVERHEAD GUARD OPTION - EXPLODED VIEW



C1145-1/9704

STROBE LIGHT WITHOUT OVERHEAD GUARD OPTION - PARTS LIST

OPTION NO. 0880-598 (Amber Strobe)

OPTION NO. 0880-597 (Red Strobe)

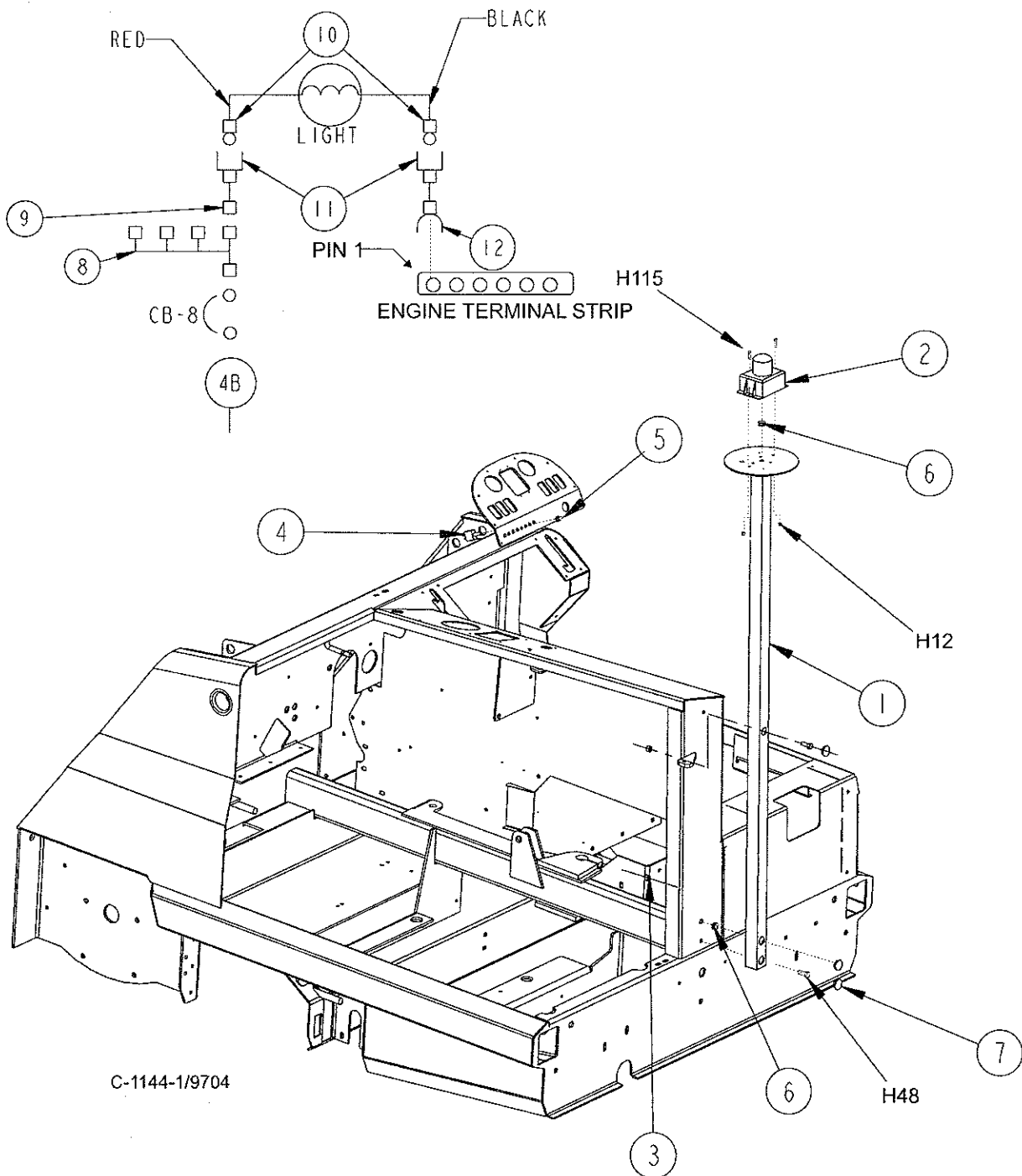
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-81-00173	Light Pole	1
2	8-40-05036	Strobe, Amber	1
	8-40-05020	Strobe, Red	1
3	2-95-04182	Nut, Elastic Stop	2
4	8-64-00008	Circuit Breaker, 15 amp	1
5	8-11-00044	Cap, Instrument Panel Boot	1
6	2-00-00491	Grommet	2
7	2-00-05134	Plug Button	3
8	8-90-07434	Wing Wire	1
9	8-11-00015	Terminal	1
10	2-00-04578	Terminal	2
11	2-00-04626	Terminal	2
12	2-00-04742	Terminal	1

HARDWARE USED:

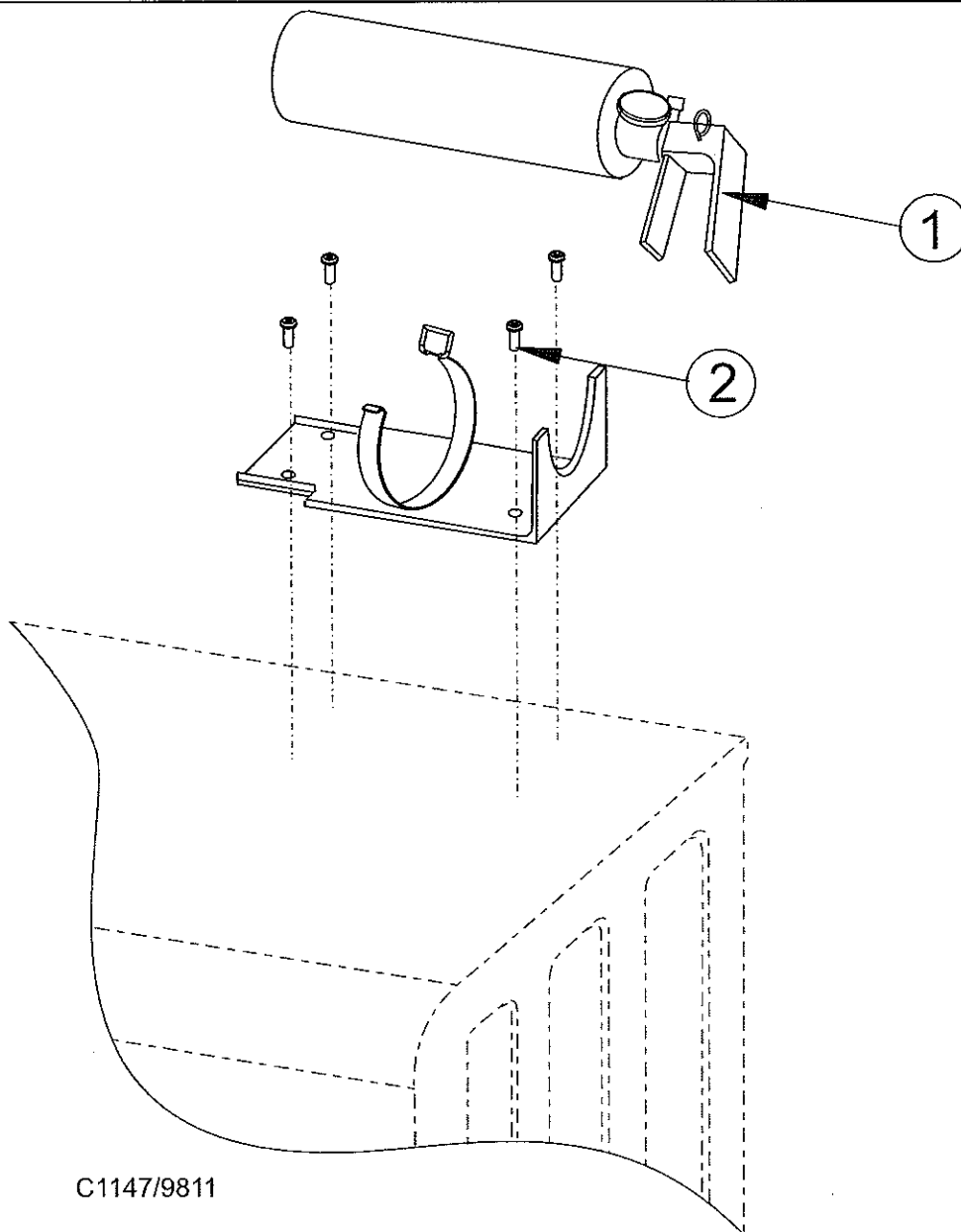
H12	2-00-01246	Nut, Hex Fiber Insert #10-24	2
H48	2-00-00233	Screw 3/8 - 16 x 1.000 HHC	2
H115	2-00-03063	Screw, #10-24 x .750 THM	2

C1144/9901

STROBE LIGHT WITHOUT OVERHEAD GUARD OPTION - EXPLODED VIEW



FIRE EXTINGUISHER OPTION

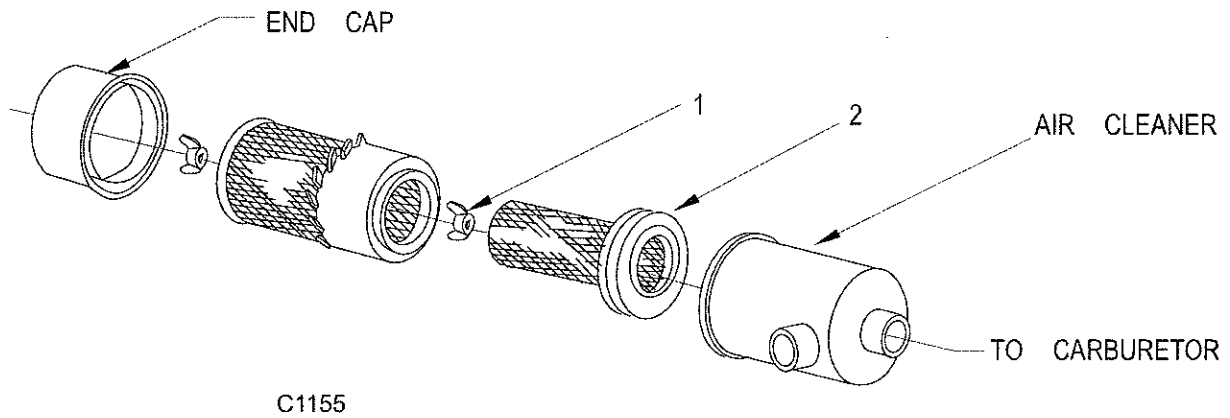


OPTION NO. 0880-609

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
<u>1</u>	<u>8-83-04033</u>	<u>Fire Extinguisher</u>	<u>1</u>
<u>2</u>	<u>2-95-01998</u>	<u>Screw, #14-10 x .750 T/F R.H.</u>	<u>2</u>

C1147/9901

HEAVY DUTY AIR CLEANER OPTION



OPTION NO. 0880-369

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-23-03064	Wing Nut Assembly	1
2	8-24-04111	Filter Element	1

C1155/9901

PULSE AIR OPTION - PARTS LIST

OPTION NO. 0880-637 (GAS & LP MACHINES)

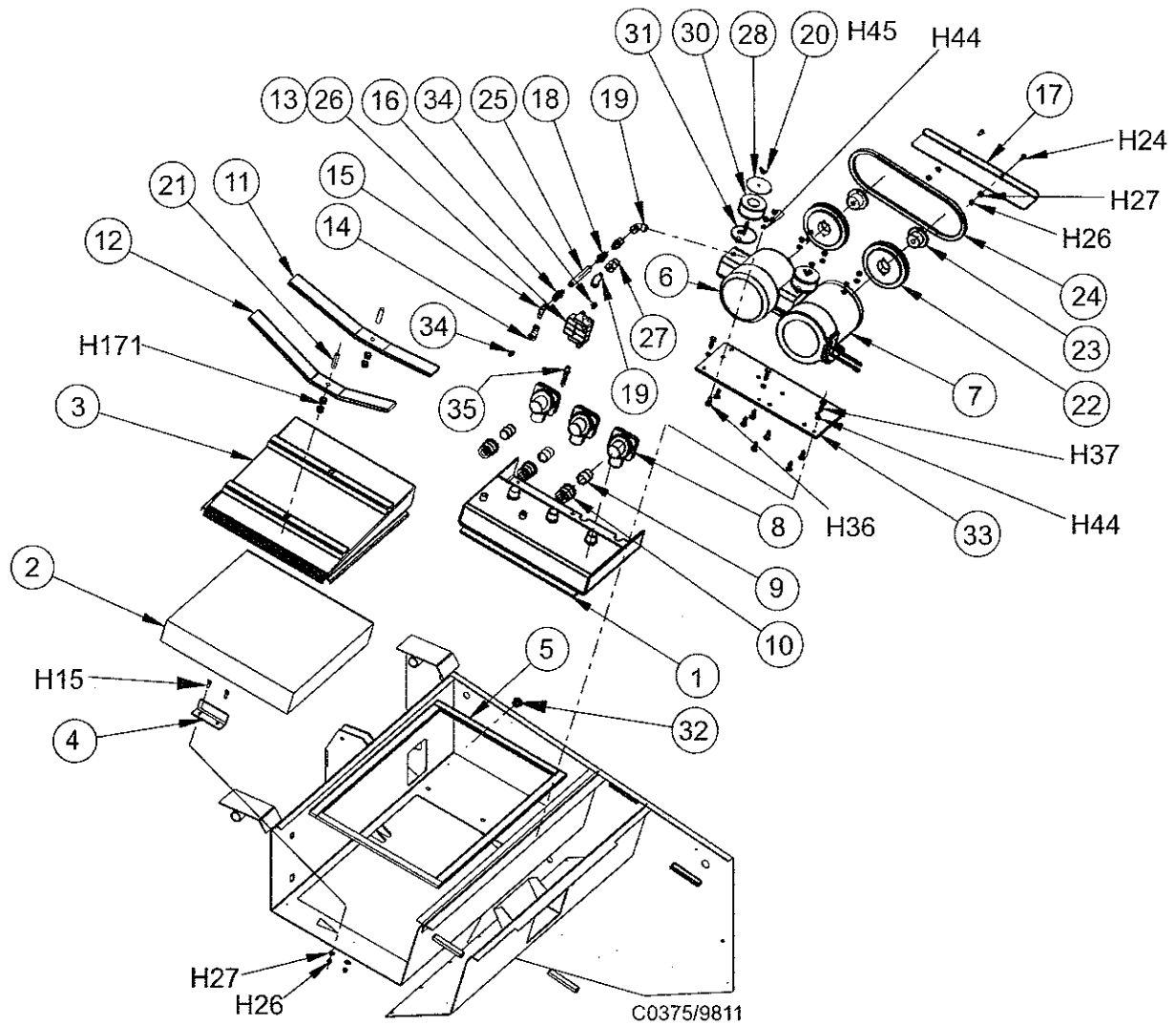
OPTION NO. 0880-667 (DIESEL MACHINES)

SHT 1 OF 3

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-48-00020	Manifold (Weldment)	1
2	8-24-04154	Filter	1
3	8-20-06040	Filter Duct (Weldment)	1
4	8-78-05024	Stop	1
5	3-73-00050	Gasket, (4pcs)	6'
6	0890-006	Compressor	1
7	0782-091	Motor	1
8	8-88-00061	Valve - Pilot Operated	3
9	8-56-05080	Fitting - 1" NPT Close Nipple	3
10	2-00-03859	Fitting - Reducer 1 - 3/4" NPT	3
11	8-13-07149	Clamp - Filter Duct (LH)	1
12	8-13-07150	Clamp - Filter Duct (RH)	1
13	8-88-00062	Valve	3
14	2-00-04515	Fitting - Tee (1/4 STR)	1
15	2-00-04477	Fitting - 90 ELL	1
16	2-00-04856	Fitting	2
17	8-16-07408	Cover, V-Belt	1
18	2-00-04499	Fitting	1
19	8-56-05061	Fitting - 90 STR EL	2
20	2-00-02407	Nut-Wing 1/4 - 20 Flat Type	2
21	8-80-05045	Stud	2
22	8-60-00165	Pulley	2
23	8-60-00171	Bushing	2
24	2-00-01062	Belt	1
25	8-33-02335	Hose - Compressor to Manifold	1
26	8-58-05787	End Plate Assy	1
27	8-82-00063	Pressure Switch	1
28	8-33-05147	Housing-Filter Cover	2
29	8-03-03007	Alternator - 12V - 94 Amp	1
30	8-24-04157	Filter	2
31	8-33-05145	Weldment-Filter Base	2
32	8-09-01082	Bushing	1
33	8-58-05786	Plate, Comp Mtg.	1
34	2-00-02471	Plug, 1/4 NPT	2
35	8-25-02037	Fitting	1
HARDWARE USED:			
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	2
H24	2-00-00220	Screw, 1/4-20 x .625 HHC	2
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H27	2-00-03702	Washer, .625 x .281 x .063	4
H36	2-00-00196	Carriage Bolt, 5/16-18 x 1.000	8
H37	2-00-00207	Screw, 5/16-18 x 1.250 HHC	3
H44	2-00-00530	Lock Washer, 5/16 HS Med.	11
H45	2-00-00585	Nut, Hex. 5/16-18 x .500 x .265	8
H171	2-00-02371	Nut, Hex Jam .50-13 STL.	4

C-0375/9901

PULSE AIR OPTION - EXPLODED VIEW



PULSE AIR OPTION - PARTS LIST (cont.)

OPTION NO. 0880-637 (GAS & LP MACHINES)
OPTION NO. 0880-667 (DIESEL MACHINES)
SHT 2 OF 3

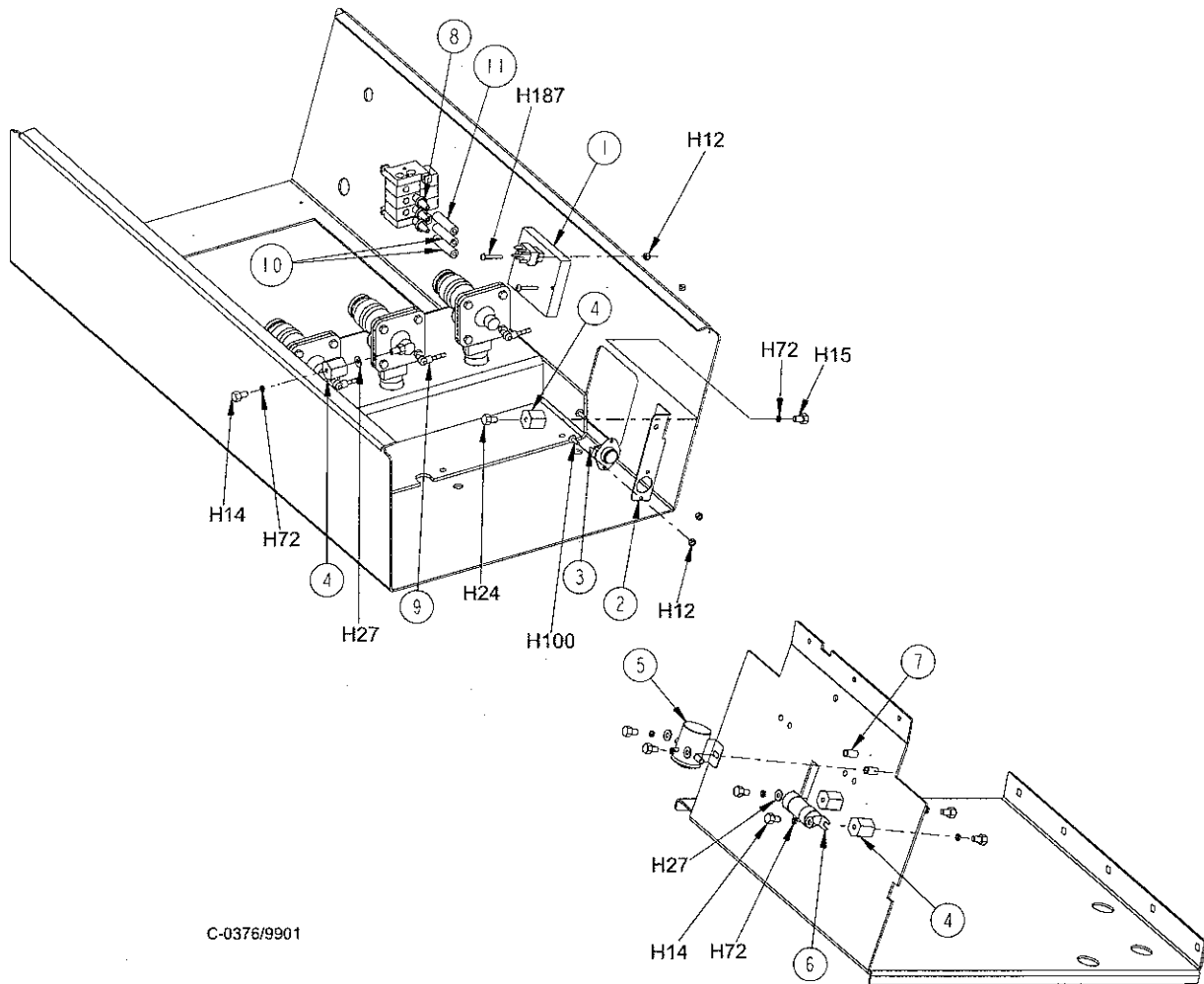
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-64-00016	Relay	1
2	8-08-00859	Bracket - Temp SW	1
3	8-82-00056	SW - Temp	Ref.
4	8-35-00021	Isolator	4
5	7-74-00002	Solenoid	1
6	7-28-00002	Fuse - 80 Amp	1
7	2-00-05261	1/4 - 20 THD Insert	2
8	2-00-04518	Fitting - 1/8 NPT Straight	3
9	2-00-04787	Fitting - 1/8 NPT Ell	3
10	3-71-00082	Hose (12" Lg.)	2
11	3-71-00082	Hose (6" Lg.)	1

HARDWARE USED:

H12	2-00-01246	Nut, Hex Fiber Insert #10-24	4
H14	2-00-00219	Screw, 1/4-20 x .500 HHC	14
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	1
H24	2-00-00220	Screw, 1/4 - 20 X .625 HHC	2
H27	2-00-03702	Washer, .625 x .281 x .063	9
H72	2-00-00518	Lock Washer, Helical Spring	17
H100	2-00-03062	Screw, #10-24 x .625 THM	2
H187	2-00-00071	Screw, #10-24 x 1.250 RHM	2

C-0376/9901

PULSE AIR OPTION - EXPLODED VIEW (cont.)



PULSE AIR ELECTRICAL ASSEMBLY - PARTS LIST

OPTION NO. 0880-637 (GAS & LP MACHINES)
OPTION NO. 0880-667 (DIESEL MACHINES)
SHT 3 OF 3

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1*	0895-092	Harness Assy - Wire	1
2*	2-00-04440	Terminal, .25	1
3	2-00-04738	Terminal, .38 Ring	3
4	2-00-04659	Terminal, .25 Ring	5
5	2-00-04284	Terminal, .31 Ring	2
6	3-61-00021	Wire 6 Awg. Black	15'
7	3-61-00144	Wire 14 Awg. Black	10'
8	2-00-03418	Terminal, .25 FISO	2
9	2-00-04584	Terminal, .156 Female Bullet	4
10	2-00-04578	Terminal, .156 Male Bullet	6
11	8-28-05020	Fuse, 5 Amp ATC	1
12	2-00-04479	Terminal, 3-Way	1
13	2-00-04657	Terminal, .31 Ring	2
14	3-61-00189	Wire 16 Awg. Black	5'
15*	2-00-04281	Terminal, # 10 Ring	1
16	0875-121	Resistor Assembly	1
17	2-00-04345	Tye Raps	10
18	7-32-03019	In-Line Fuse Holder	1
19	2-00-01862	Terminal, .25 Ring	3
20	2-00-04626	Terminal, .156 Male Bullet	2

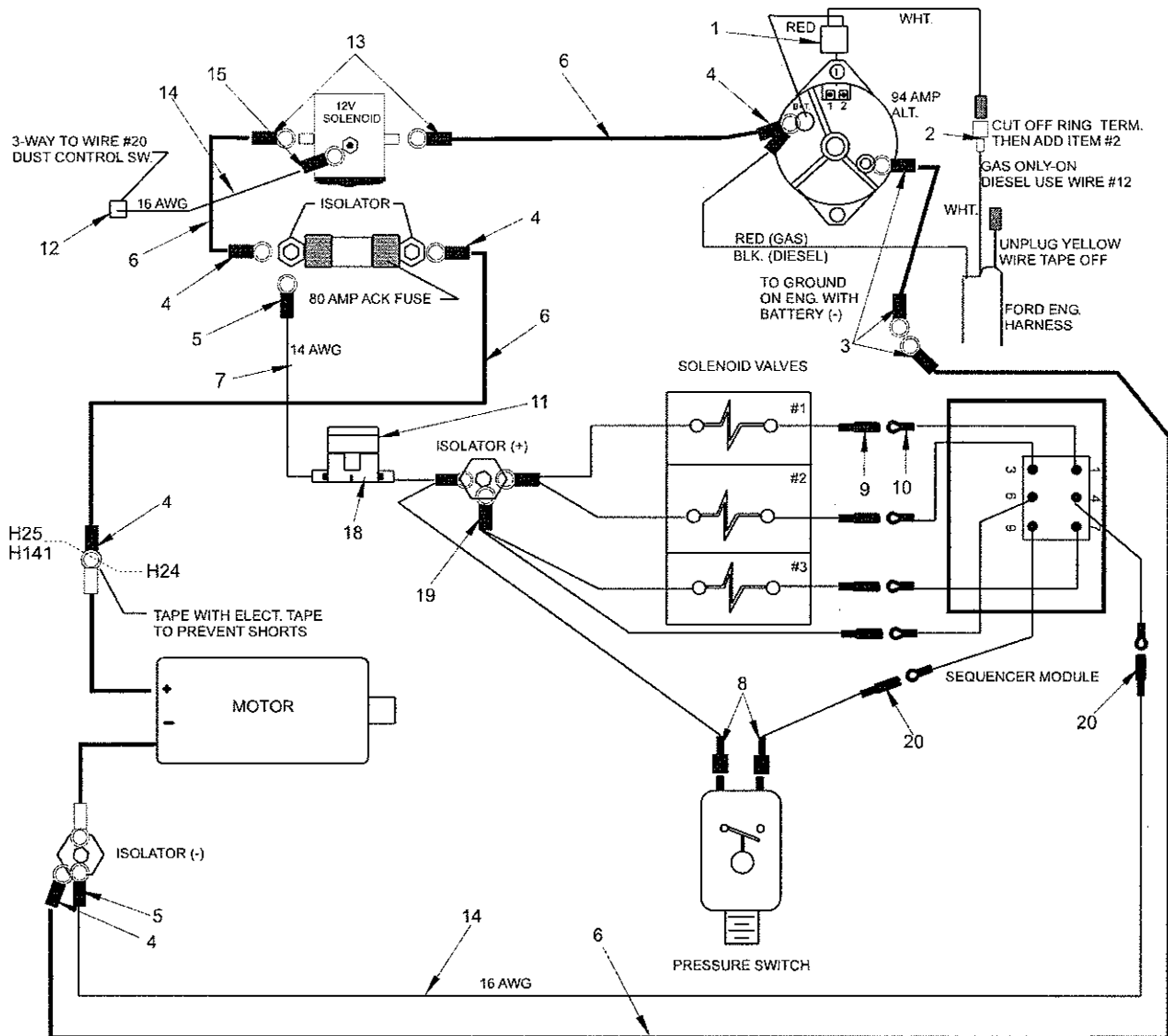
HARDWARE USED:

H24	2-00-00220	Screw, 1/4-20 x .625 HHC	1
H25	2-00-00594	Nut, Hex 1/4-20 x .437 x .218	1
H141	2-00-00501	Lock Washer, Int.	1

*Used on Gas Machines Only

C-0377/9901

PULSE AIR ELECTRICAL ASSEMBLY - EXPLODED VIEW



C-0377/9510

LITTER VAC OPTION - PARTS LIST

OPTION 0880-713 SHT. 1 OF 3

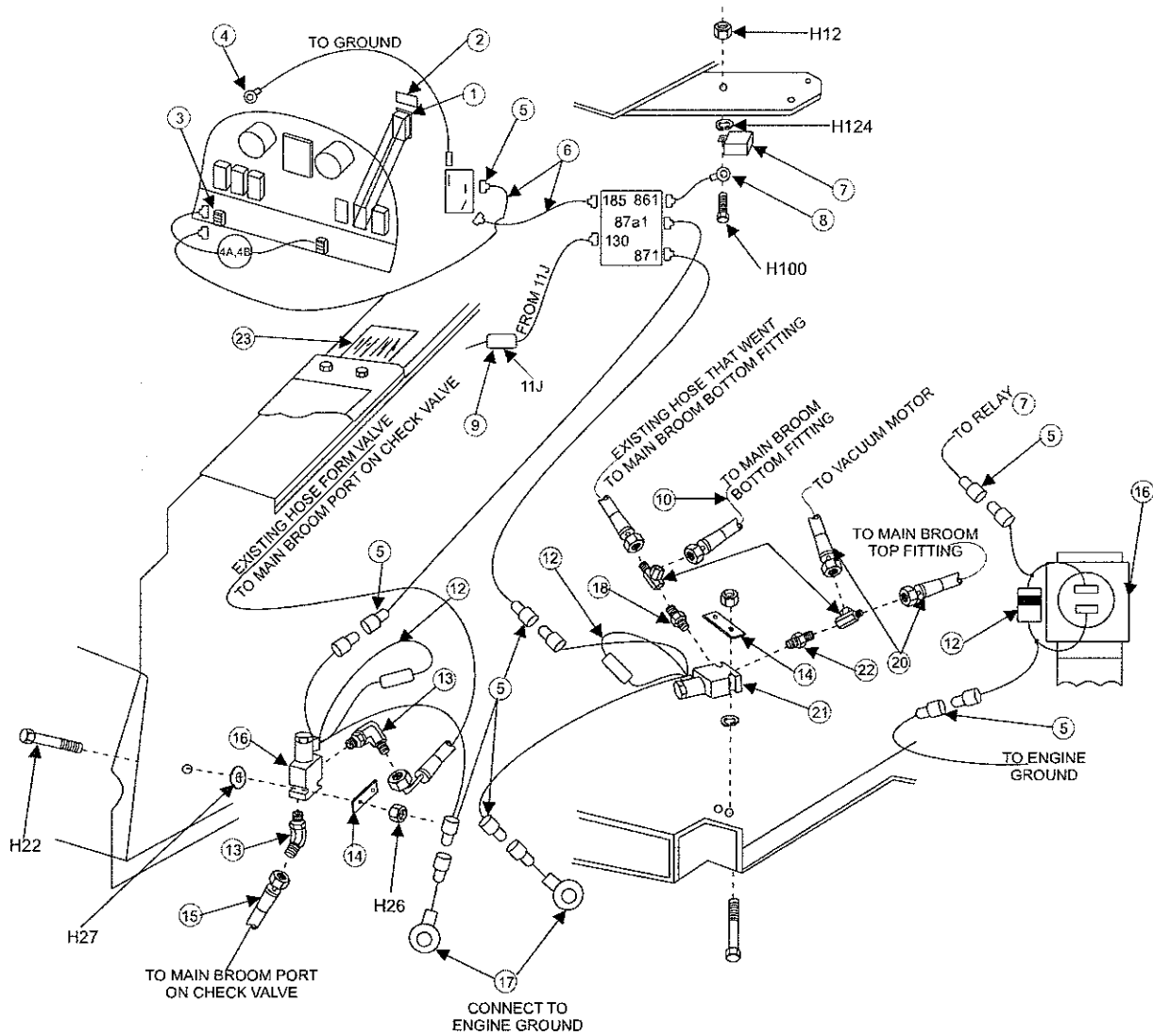
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-82-00068	Switch 2 Position On-Off & Light	1
2	8-18-00445	Decal-LitterVac	1
3	8-64-00008	Circuit Breaker-15 Amp.	1
4	2-00-04742	Terminal, #6 Spring Spade	1
5	2-00-03418	Terminal, .25 FISO	13
6	3-61-00189	Wire, Black 16 AWG	11'
7	8-64-05009	Relay	1
8	2-00-00833	Terminal- #10 Ring	1
9	2-00-04479	Splice, 3-Way	1
10	8-33-02326	Hose, #8 ORS 0-0 34.5	1
11			
12	0875-117	Diode Assembly	2
13	2-00-04926	Fitting, 90° SAE 6 x ORS 4	2
14	8-08-00590	Bracket- Valve Mount	2
15	7-33-02189	Hose, #4 ORS 0-90° 26.00"	1
16	8-88-00044	Valve	1
17	2-00-05048	Terminal- Ring	2
18	2-00-04885	Fitting 90° SAE 8 x ORS 8	1
19	2-00-04928	Run Tee ORS 8 x 8 x 8	2
20	8-33-02214	Hose, #8 ORS 0-0 29.00"	2
21	8-88-00042	Valve	1
22	2-00-04970	Fitting, Strt. SAE 8 x ORS 8	1
23	8-18-00444	Decal- LitterVac Instructions	1

HARDWARE USED:

H12	2-00-01246	Nut, Hex Fiber Insert #10-24	1
H22	2-00-02589	Screw, 1/4-20 x 2.000HHC	4
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H27	2-00-03702	Washer, .625 x .281 x .063	8
H100	2-00-03062	Screw, #10-24 x .625 THM	1
H124	2-00-02296	Lock Washer, #10 Ext. Shakeproof	1

C1441/9901

LITTER VAC OPTION - EXPLODED VIEW



C-1441/9709

LITTER VAC OPTION - PARTS LIST (cont.)

OPTION 0880-713 SHT. 2 OF 3

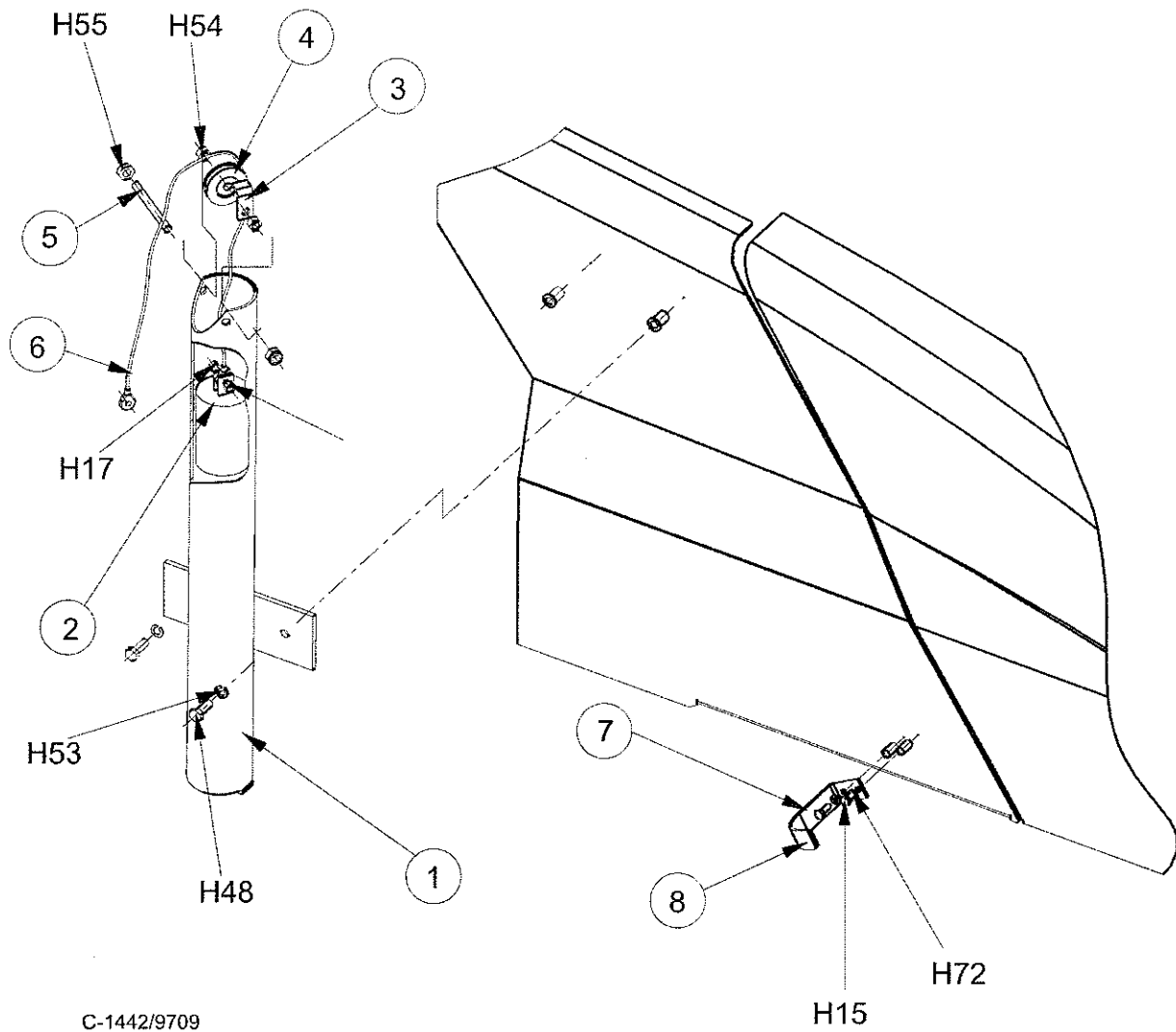
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-81-00180	Support-Litter Vac Hose	1
2	8-89-04020	Counter Weight	1
3	7-13-07130	Cable Retainer	1
4	7-60-00160	Pulley	1
5	8-80-05047	Threaded Rod, 3/8-16	1
6	8-10-00036	Cable	1
7	8-08-00881	Bracket- Vac. Wand	1
8	7-31-06065	Edging	1

HARDWARE USED:

H15	2-00-00221	Screw, 1/4-20 x .750 HHC	2
H17	2-00-00205	Screw, 1/4-20 x 1.000 HHC	1
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	1
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	2
H53	2-00-02310	Lock Washer, HS, 3/8-16 x 1.000	2
H54	2-00-02360	Nut, 3/8-16 Hex.	2
H55	2-00-00643	Nut, 3/8-16 Stop	2
H72	2-00-00518	Lock Washer, Helical Spring	2

c1442/9901

LITTER VAC OPTION - EXPLODED VIEW (cont.)



LITTER VAC OPTION - PARTS LIST (cont.)**OPTION 0880-713
SHT. 3 OF 3**

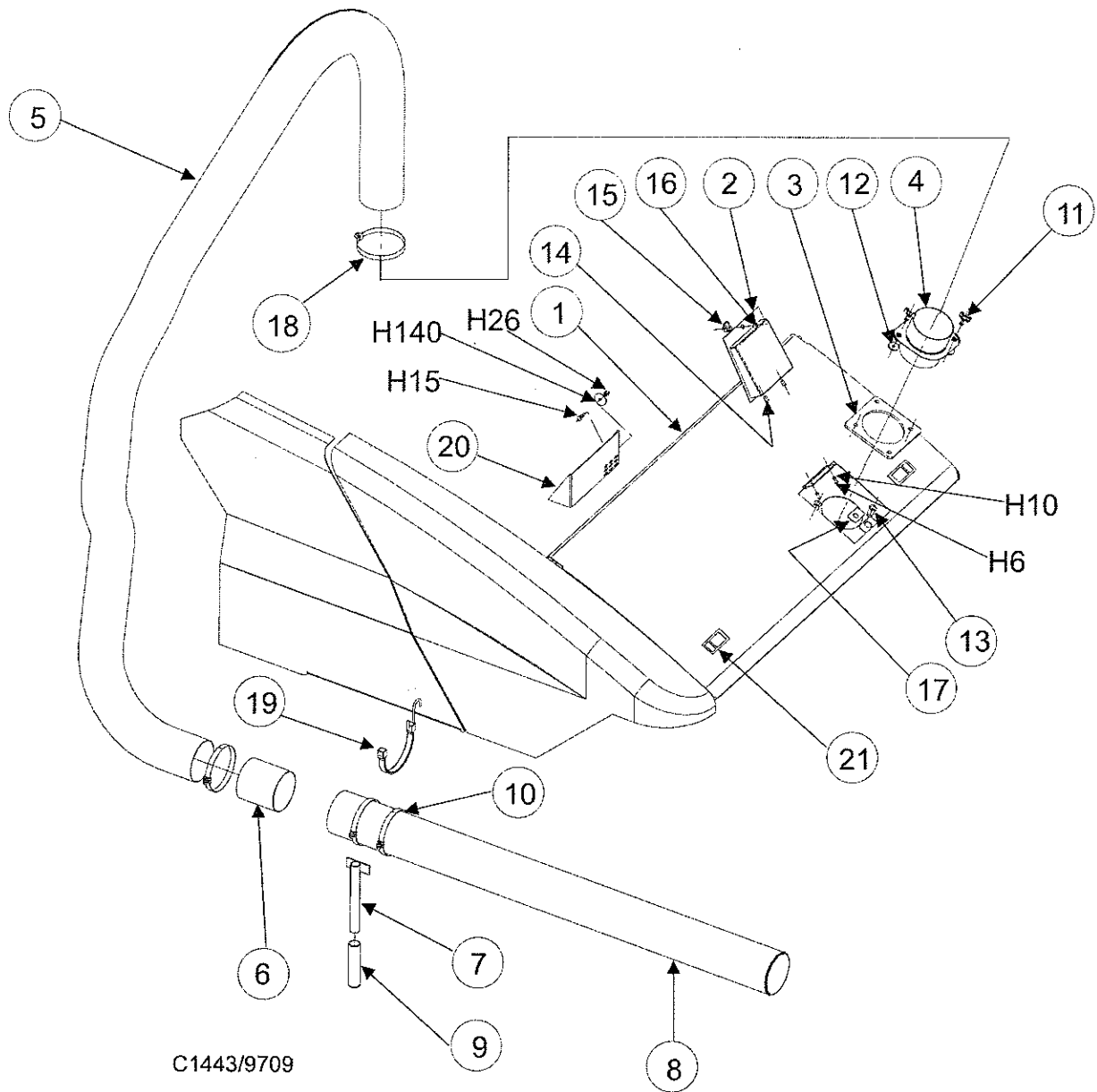
<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-16-07400	Cover	1
2	8-16-07404	Cover	1
3	8-29-00281	Gasket	1
4	8-87-02117	Hose Connector	1
5	8-33-02359	Hose	1
6	8-87-02119	Interconnect	1
7	8-08-00883	Handle	1
8	8-87-02118	Wand Tube (Plastic)	1
9	2-95-03355	Handle-Grip	1
10	2-00-03959	Clamp-Hose	2
11	2-00-04066	Wing Screw-5/16-18	2
12	2-14-03197	Washer-Rubber	2
13	2-00-05330	Insert-5/16-18	2
14	2-00-05262	Insert- #10-24	2
15	7-23-03113	Fastener, QTR Turn	1
16	7-23-03107	Grommet	1
17	7-23-03108	Clip	1
18	8-13-07171	Bridge Clamp	2
19	8-79-00128	Strap-Bungee	1
20	8-30-05180	Guard	1
21	8-41-00040	Latch	2
22		Print of 0880-715	1

HARDWARE USED:

H6	2-00-00049	Screw #10-24 x .500 RHM	2
H10	2-00-00519	Lock Washer, #10 Med. HS	2
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	2
H26	2-00-00641	Nut, 1/4-20 Fiber Insert	2
H140	2-00-00447	Flatwasher, 1.250 x .280 x .090	2

c1443/9901

LITTER VAC OPTION - EXPLODED VIEW (cont.)



LP FORD 411 ENGINE OPTION - PARTS LIST

OPTION NO. 0880-707SHT 3

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-83-04016	LP Tank	1
2	8-41-00055	Bracket, LP Tank	1
3	8-08-00813	Bracket, LP Tank	1
4	8-30-05171	Guard, LP Tank Weld	1
5	8-43-05005	Locate Pin, LP Tank	1
6	2-95-04182	Nut, Fiber	4
7	2-00-05281	Plug Button	1
8	2-00-05283	Plug Button	1
9	8-08-00895	Bracket	1
	8-11-04023 MPV60 Ford 411 LP Kit		1

HARDWARE USED:

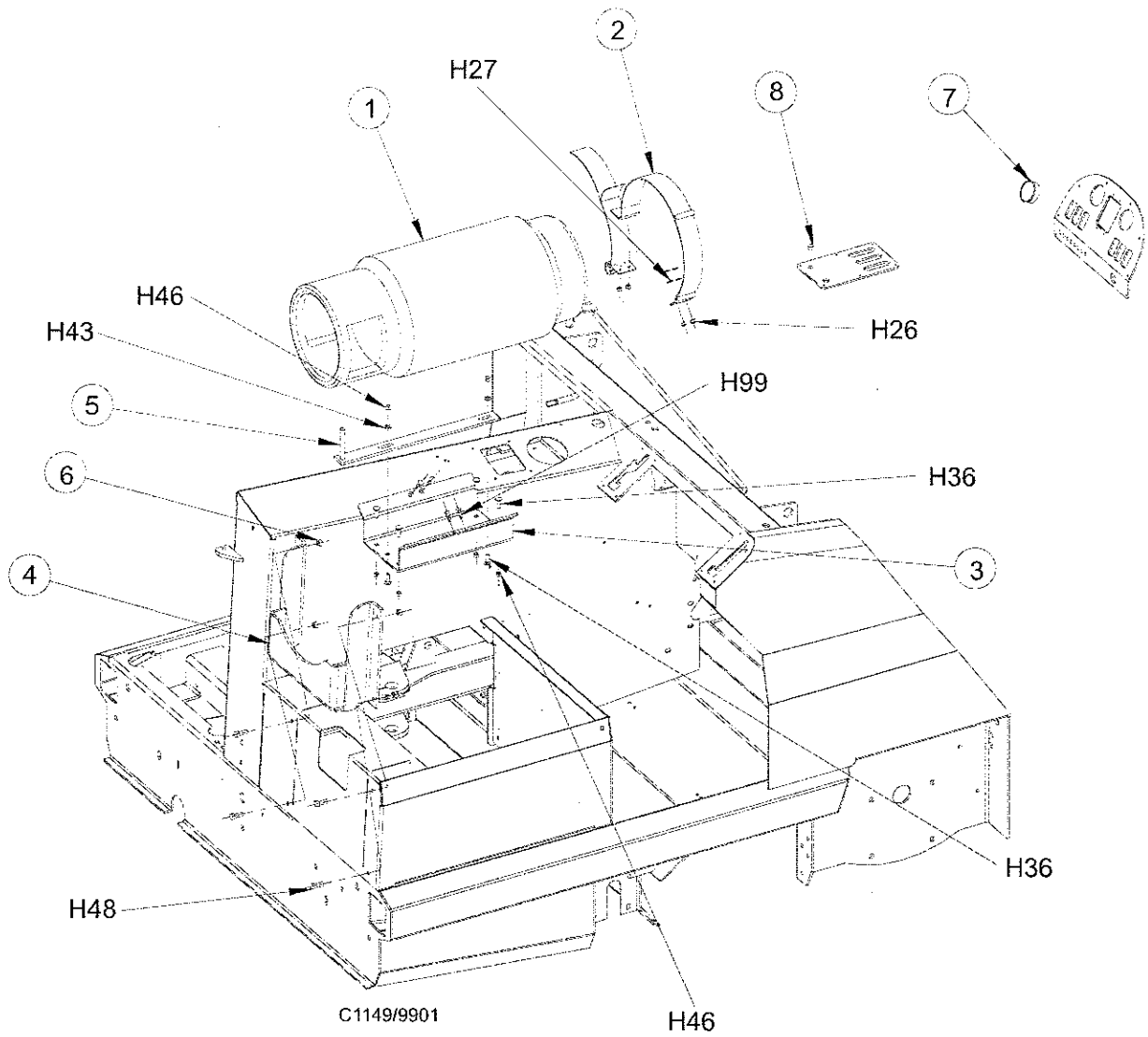
H26	2-00-00641	Nut, 1/4-20 Insert Fiber	4
H27	2-00-03702	Washer, .625 x .281 x .063	4
H36	2-00-00196	Carriage Bolt 5/16-18 x 1.000	6
H43	2-00-00409	Flat Washer, .687 x .344 x .062	2
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	6
H48	2-00-00233	Screw, 3/8-16 x 1.000 HHC	4
H99	2-00-02810	Screw, 1/4-20 x 1.000 FHM	4

LP SERVICE PARTS:

2-60-02292	Hose, LP Gas (Liquid) 94.00 Lg.	1
2-60-02293	Regulator	1
2-60-02294	Vacuum Fuelock Filter	1

C1149/9901

LP FORD 411 ENGINE OPTION - EXPLODED VIEW



LP REGULATOR & CARBURETOR OPTION - PARTS LIST

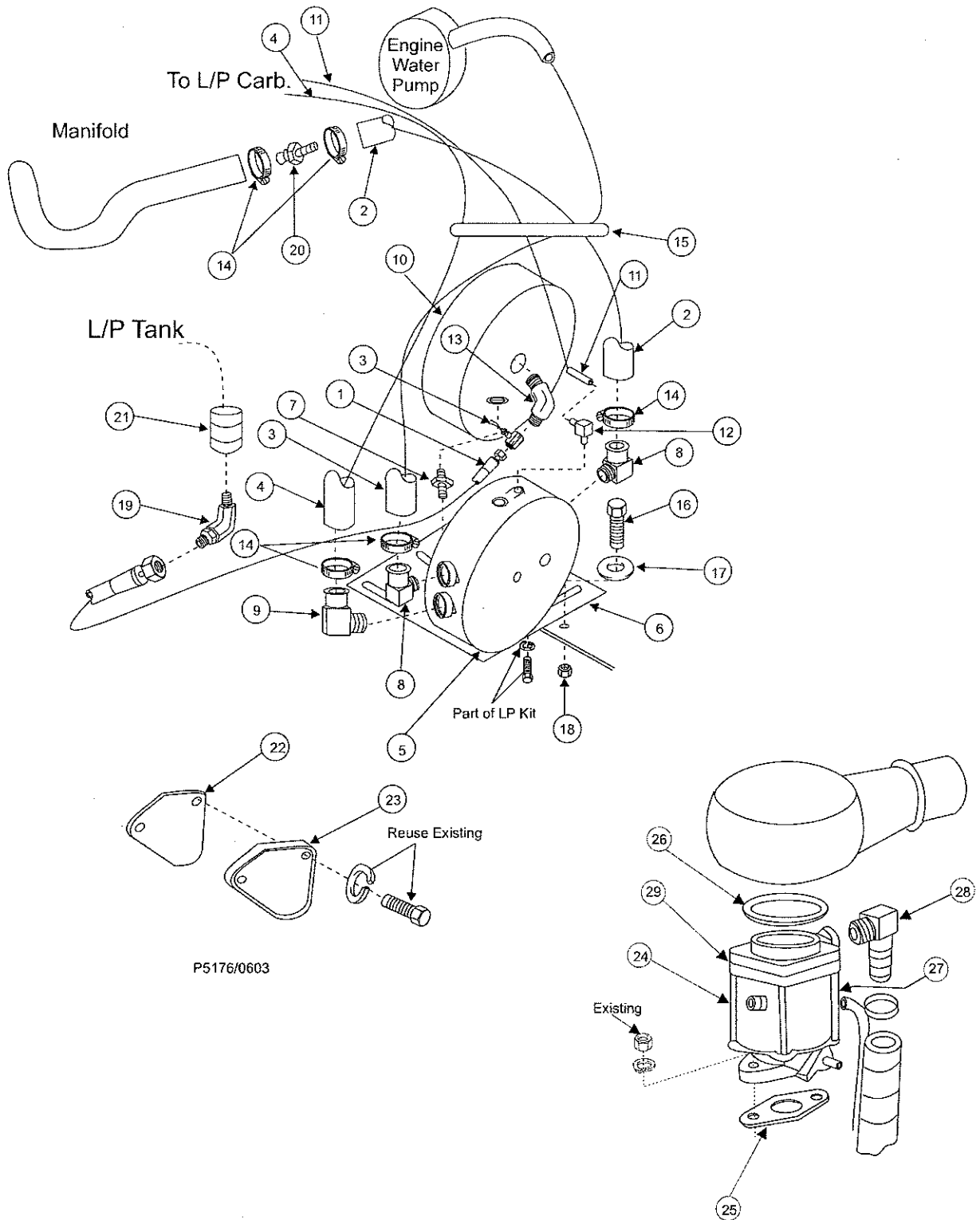
OPTION No. 0880-707 SHT 1

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1*	2-60-02292	Hose-LP-Gas (Liq) 94.00 (N30-3001-43)	1
2*		Hose-Water 19.25 (N8-1002)	1
3	7-11-04036	Kit, Low LP Switch	1
4*		Hose-Dry Gas 27.00	1
5*	2-60-02293	Regulator-Nolff N-JB (N00-0004)	1
6*		Bracket-Regulator/Fuel lock Assembly (N5-0287)	1
7*		Fitting- 1/4 x 1/4 Hex. N PT Nipple (N21109)	1
8*		Fitting- 3/8 NPT x 5/8 Hose 90° (N2-1306)	2
9*		Fitting- 1/2 NPT x 5/8 Hose 90° (N2-0021)	1
10*	2-60-02294	Vac. Fuellock Fil. (N00-0125)	1
11*		Hose-7/32 Vacuum 25.00 (N8-0007)	1
12*		Fitting- 1/8 NPT x 7/32- Hose 90° (N2-1019)	1
14*	2-00-03407	Clamp- Hose 1/2 to 7/8 (N3-0008)	5
15*		Ty-Wrap 15.00 (N3-0025)	1
16	2-00-00207	Screw- 5/16-18 x .750 HHC	2
17	2-00-00409	Washer-Flat-5/16 ID	2
18	2-00-00644	Nut- 5/16-18 Fibre	2
19*		1/4 NPT x 3/8 Flare 45° Elbow (N2-1105)	1
20*		Hose Connector 5/8 (N2-0046)	2
21*		Female Connector 7141F (N3-0042-1)	1
22*		Gasket- Fuel Pump Cover Plate (N3-0020)	1
23*		Fuel Pump Cover Plate (N3-0019)	1
24		Carburetor CA-55 (N1-0405)	1
25		Gasket- Manifold (N00-5208)	1
26		Gasket- Intake (N00-5201)	1
27*		Fitting- #10-32 x 1/4 Hose (N1-5101)	1
28		Fitting 3/8 NPT x 5/8 Hose (N2-0020)	1
29		Special Cut Air Horn Adapter (N00-4067)	1

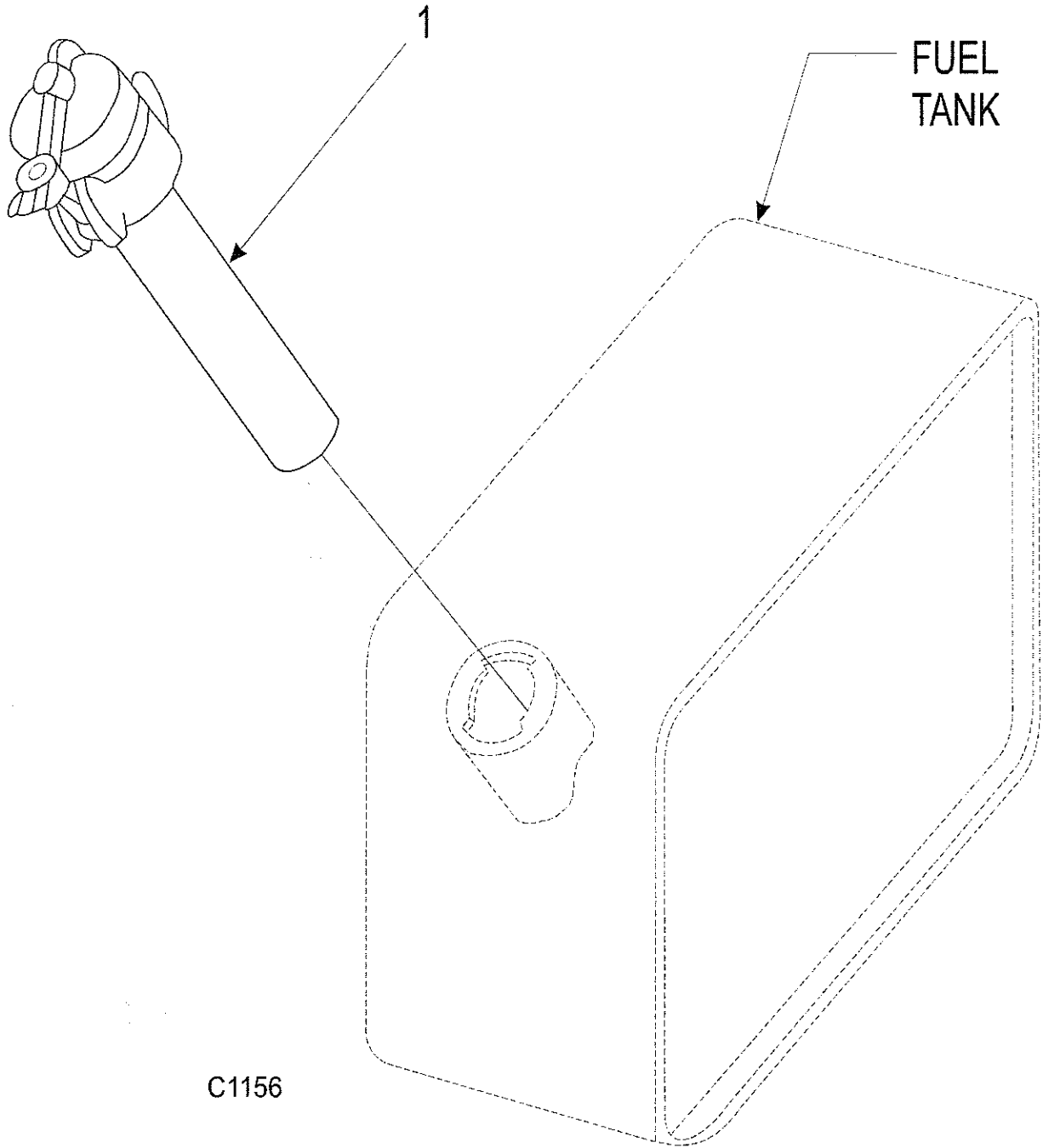
*Items contained in 8-11-04029 LP Kit (MPV 60 Ford 411/413)

P5176/0603

LP REGULATOR & CARBURETOR OPTION - EXPLODED VIEW



PROTOTECTOSEAL GAS CAP OPTION



KEY NO.

PART NUMBER

DESCRIPTION

QTY.

1

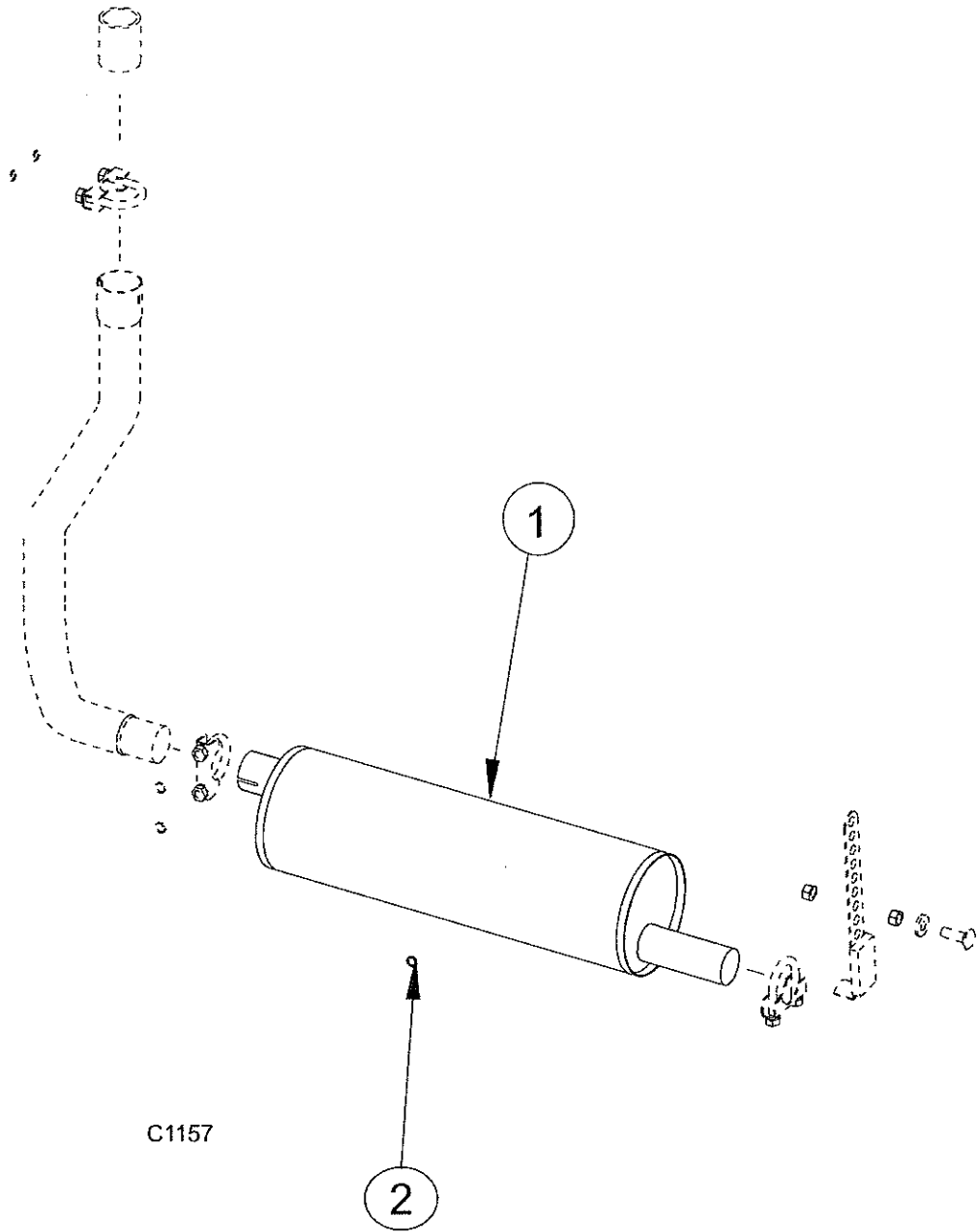
8-11-00024

Protoseal Gas Cap

1

C1156

PURIFIED MUFFLER OPTION

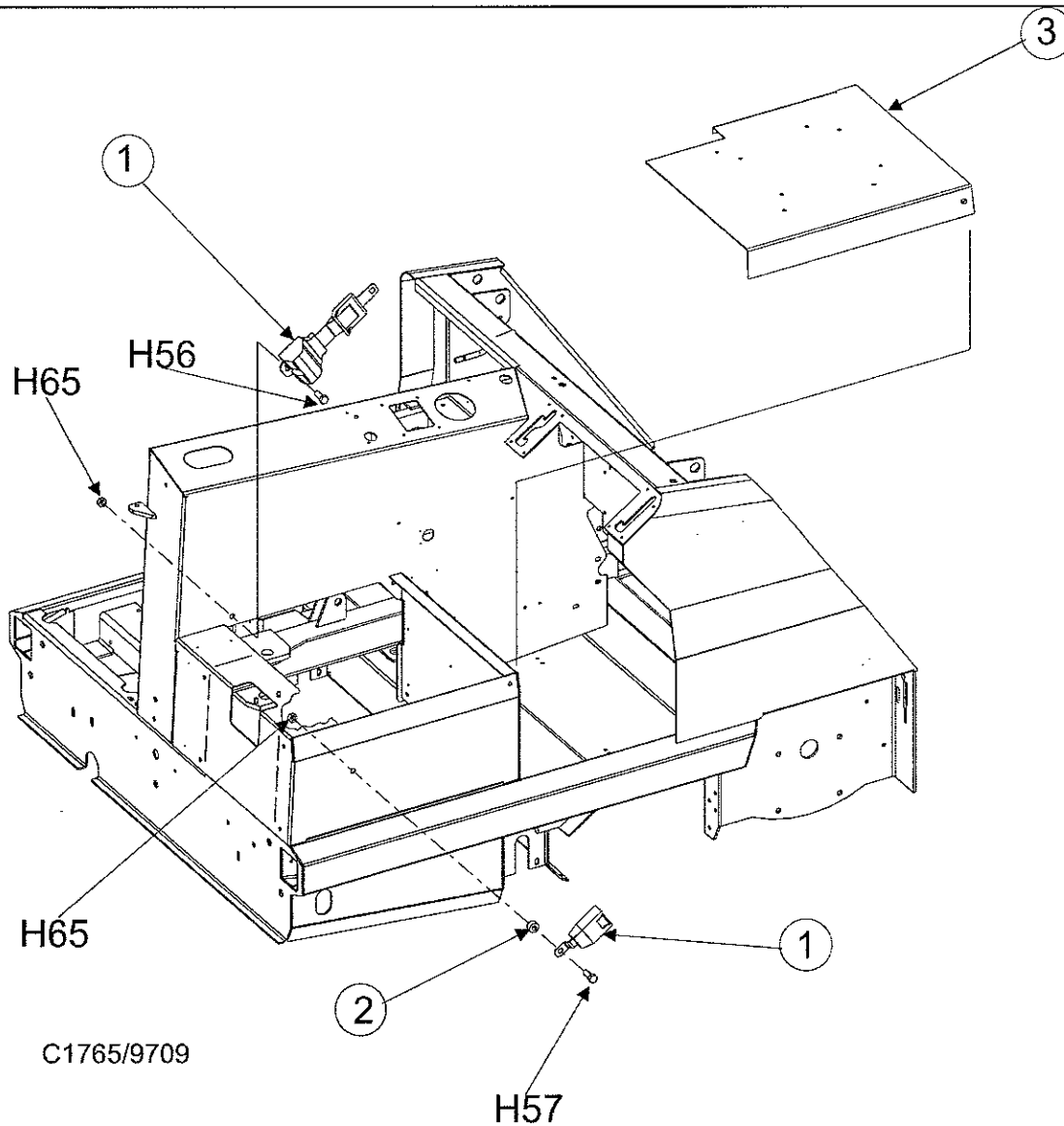


OPTION NO. 0780-146

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	7-49-00032	Purifier Muffler	1
2	2-00-02476	Plug, 1/8 NPT	1

C1157

RETRACTABLE SEATBELT OPTION



OPTION NO. 0880-722

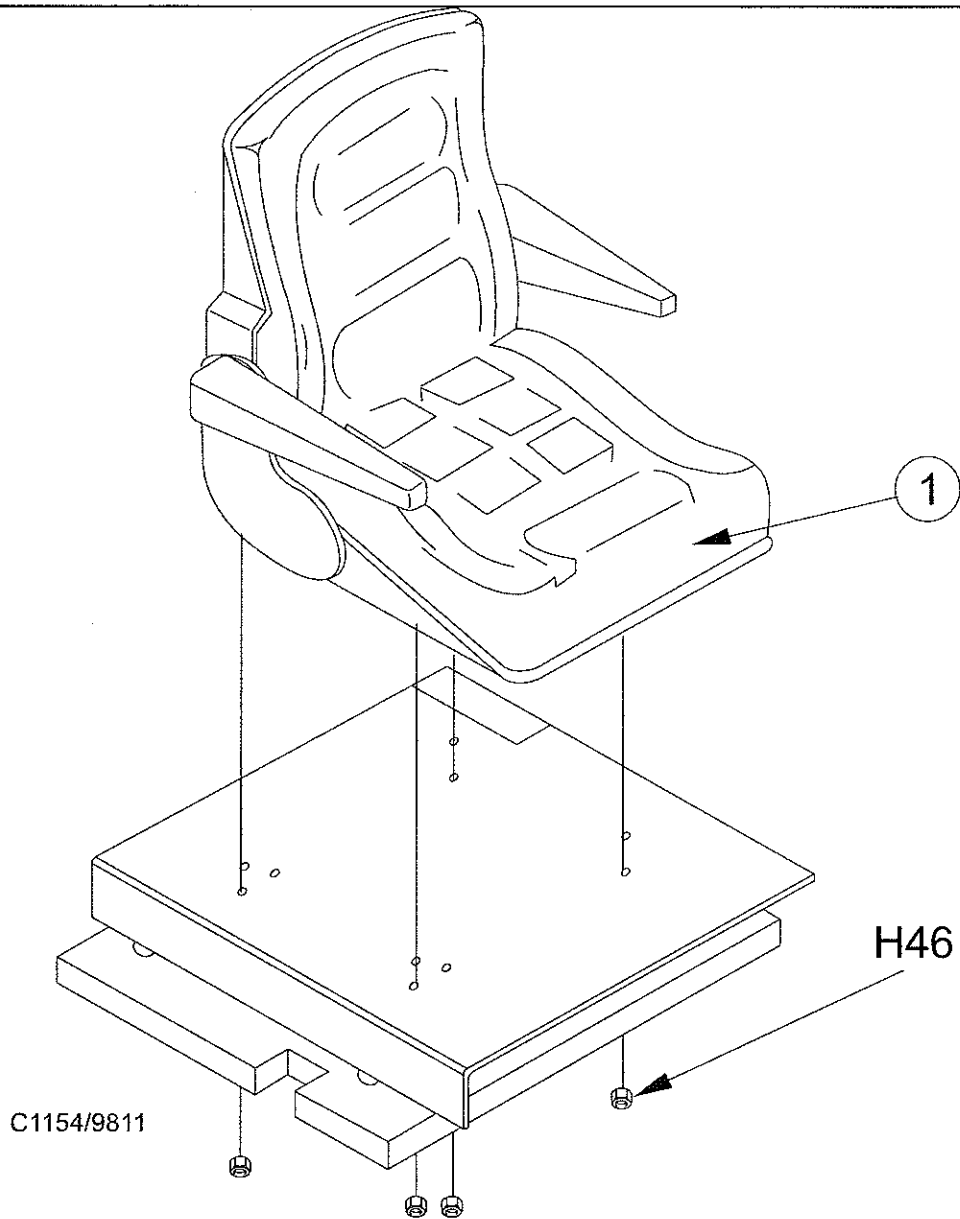
KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	2-00-05391	Retractable Seatbelt	1
2	2-00-03589	Set Collar	1
3	8-16-07348	Seat Deck, Weldment	Ref.

HARDWARE USED:

H56	2-00-00239	Screw, 1/2 -13 x 1.000 HHC	1
H57	2-00-00240	Screw, 1/2 -13 x 1.250 HHC	1
H65	2-00-04936	Nut, 1/2 -13 Fibre Lock	2

C1765/9901

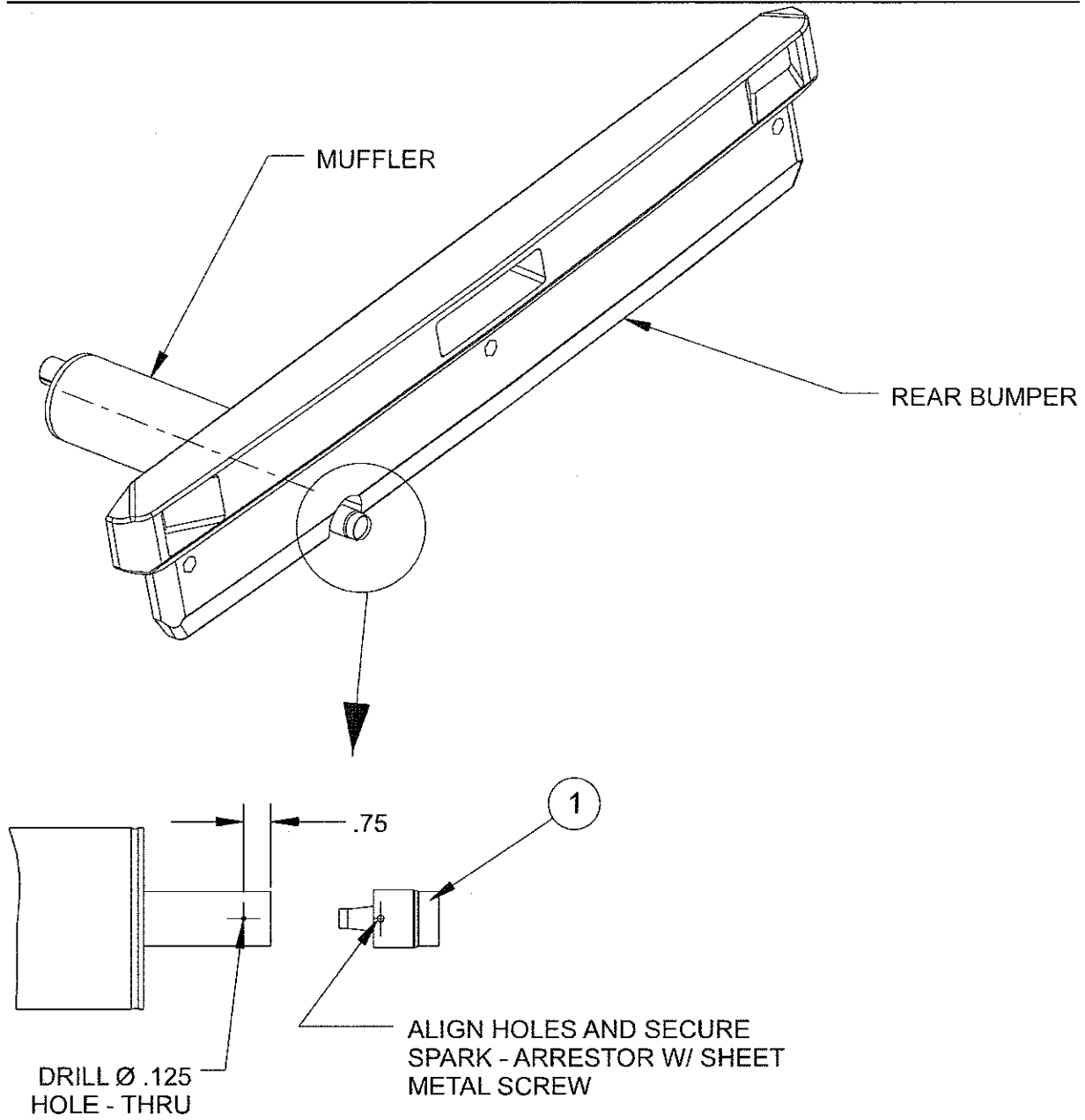
SUSPENSION SEAT OPTION



OPTION NO. 0880-734

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-69-00019	Seat - Suspension	1
HARDWARE USED:			
H46	2-00-00644	Nut, 5/16-18, Insert Fiber	4
C1154/9901			

SPARK ARRESTOR OPTION



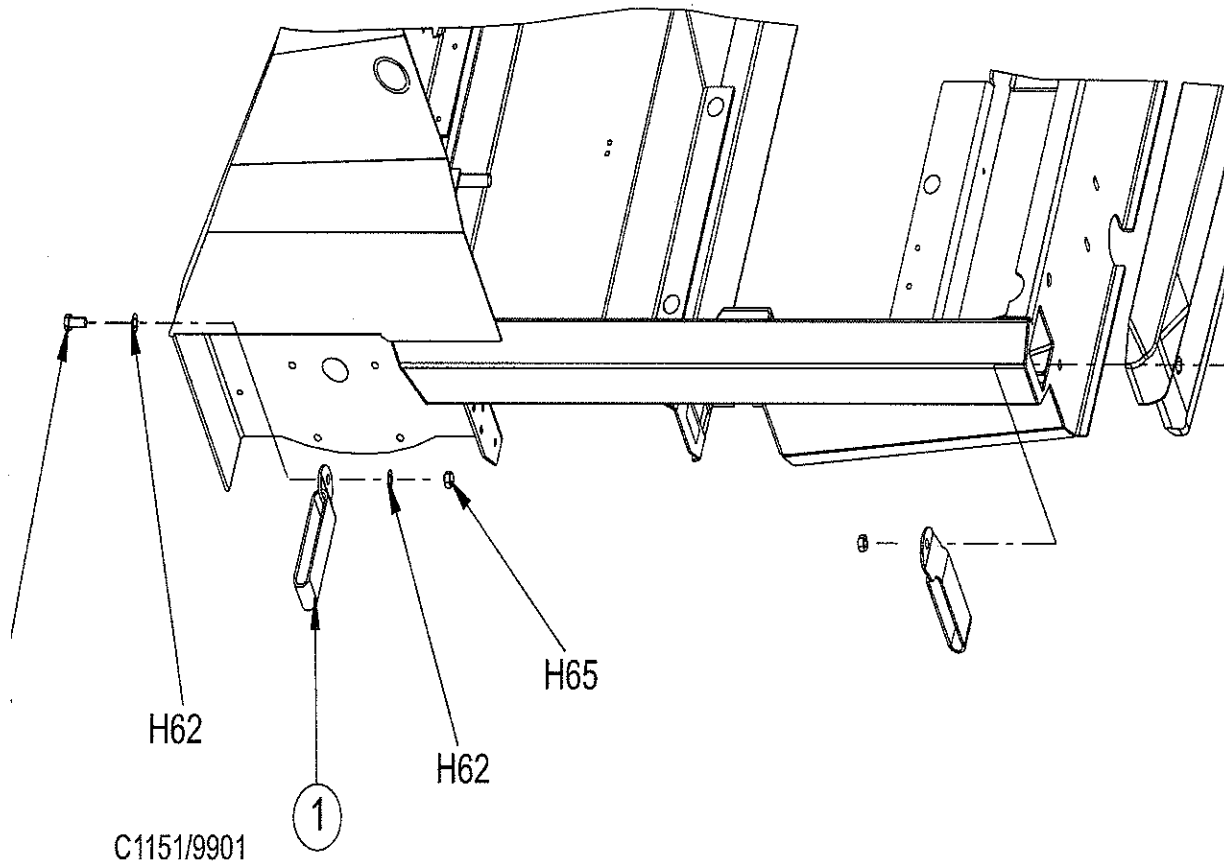
C1146

OPTION NO. 0880-608

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	8-81-05001	Spark Arrestor	1

C1146/9901

TIE DOWN OPTION

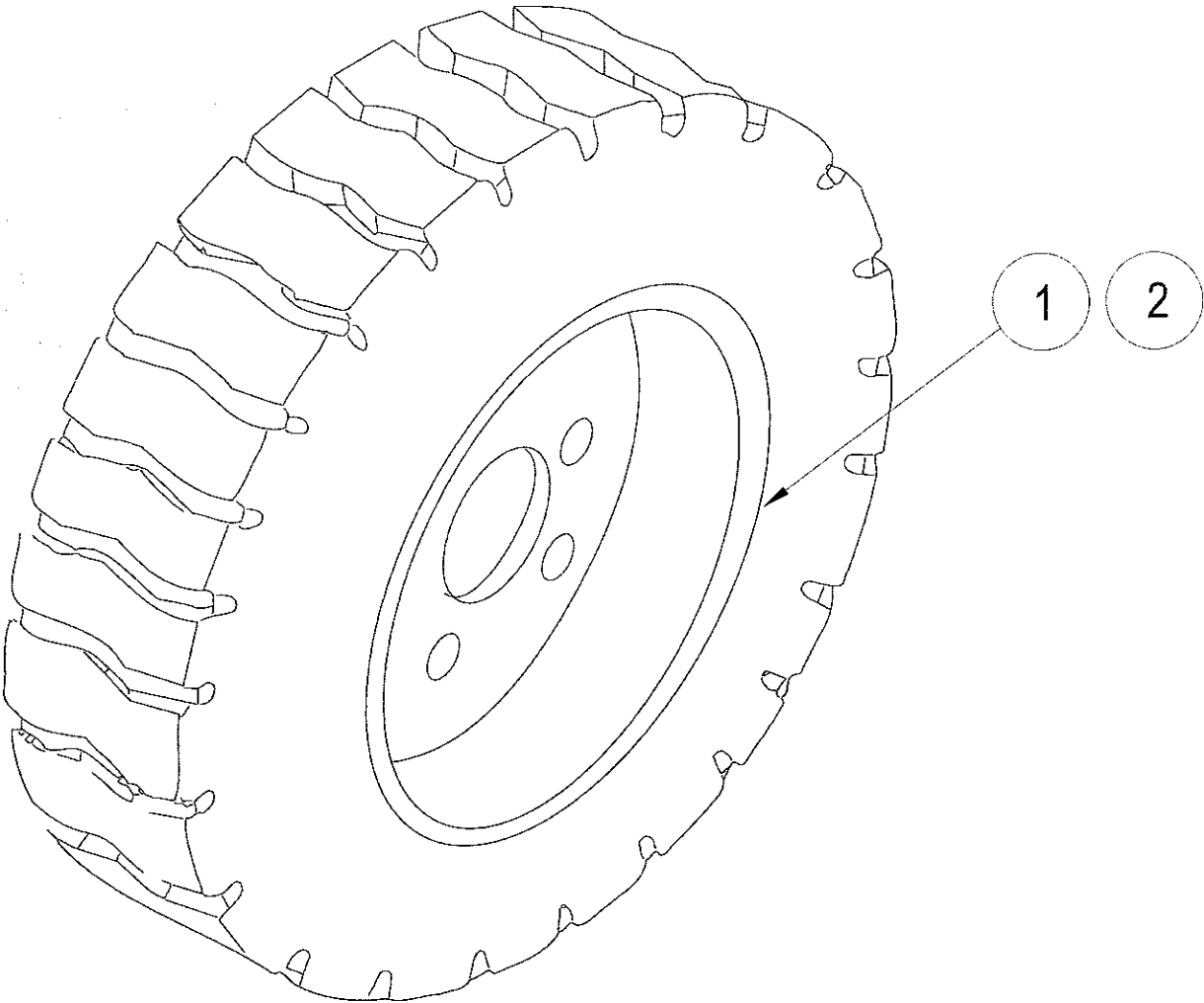


OPTION NO. 0880-618

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-79-00125	Tie Down Strap	4
HARDWARE USED:			
H57	2-00-00240	Screw, 1/2 - 13 x 1.250 HHC	1
H62	2-00-00405	Flat Washer, 1.063 x .531 x .094	2
H65	2-00-04936	Nut, 1/2-13 Fiber Lock	1

C1151/9901

FRONT SOLID CUSHION TIRE OPTION

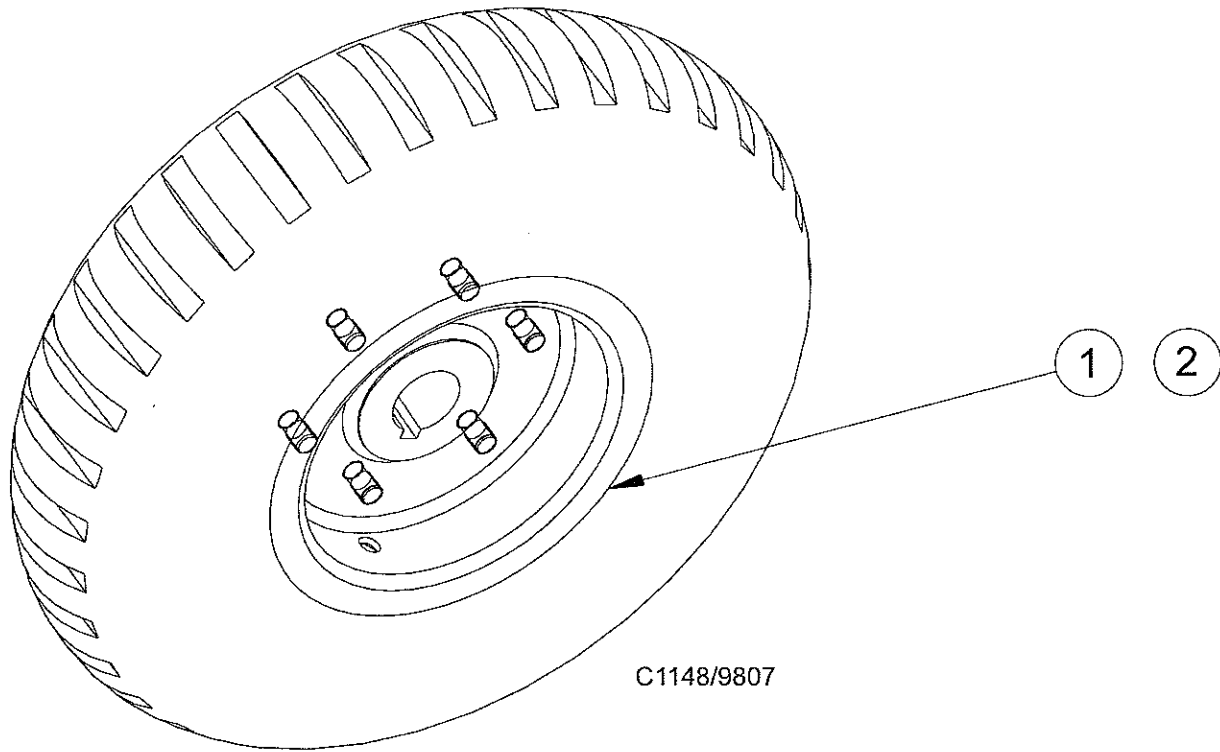


OPTION NO. 0880-610-1

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-89-08071	Wheel Assembly, Soft Shoe Demountable	2
2	8-85-06018	Tire, Soft Shoe	REF.

C1153/9901

REAR SOLID CUSHION TIRE OPTION



OPTION NO. 0880-610

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-89-08070	Wheel Assembly, Soft Shoe Demountable	1
2	8-85-06018	Tire - 5.00 x 8 Soft Shoe	REF.

C1148/9901

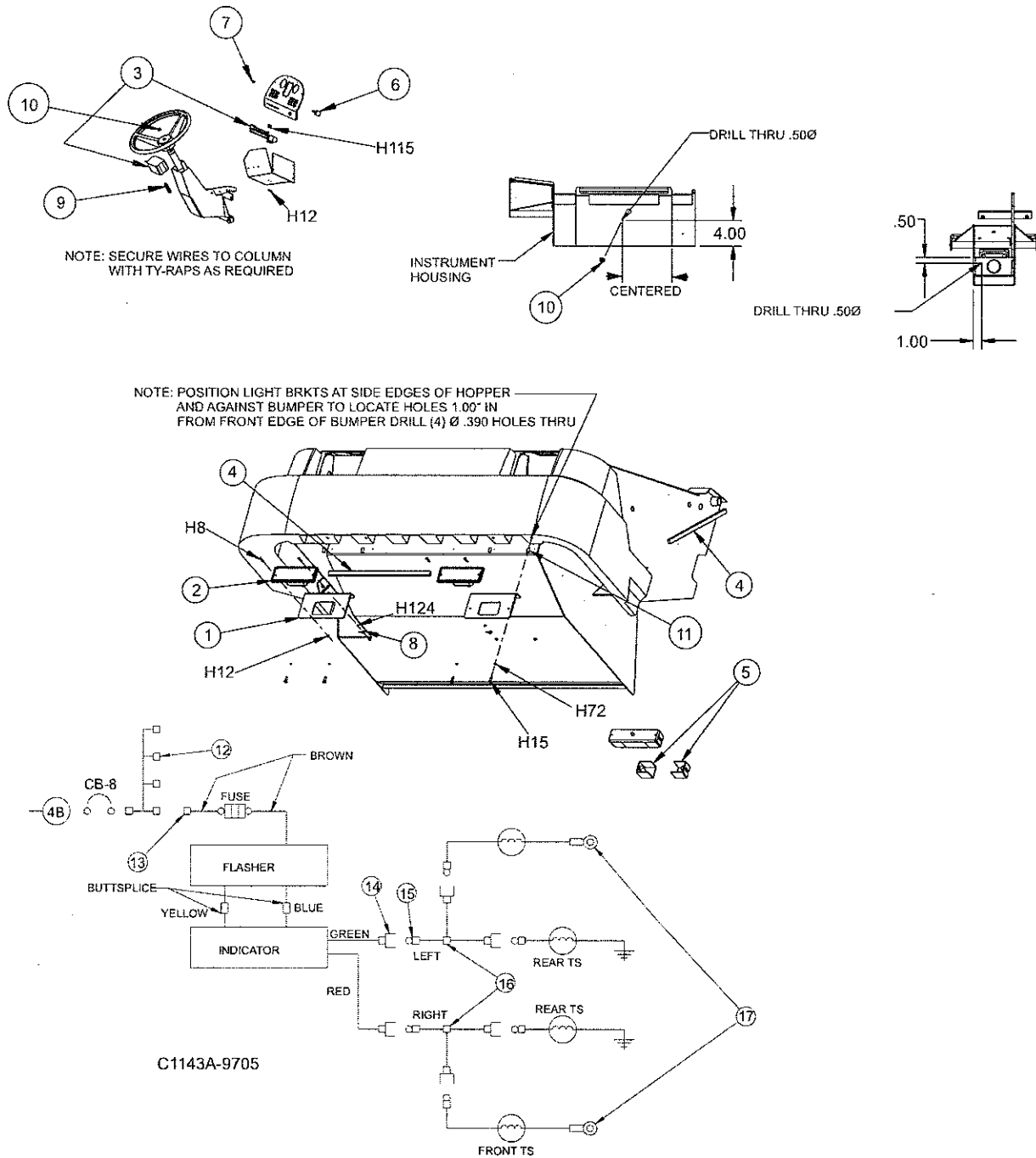
TURN SIGNAL OPTION - PARTS LIST

OPTION NO. 0880-596

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-08-00884	Bracket, Light	2
2	8-40-05046	Turn Light	2
	2-00-05291	Bulb, Turn Signal, Front (Service Part)	REF.
	8-41-03012	Lens, Turn Signal, Front (Service Part)	REF.
3	8-82-00025	Turn Signal Switch	1
4	8-20-06037	Duct Wire	2
5	8-41-03009	Lens, Turn Signal	2
	2-00-05292	Bulb, Turn Signal, Rear (Service Part)	REF
6	8-64-00008	Circuit Breaker	1
7	8-11-00044	Cap, Instrument Panel Boot	1
8	2-00-00828	Ring Terminal	REF.
9	3-61-02014	Convuluted Tube	5'
10	2-00-00491	Grommet	2
11	2-00-05261	Insert - 1/4 - 20	4
12	8-90-07434	Wing Wire	1
13	8-11-00015	Terminal	1
14	2-00-04626	Terminal	6
15	2-00-04578	Terminal	6
16	2-00-04479	Connector	2
17	2-00-00828	Ring Terminal	2
HARDWARE USED:			
H8	2-00-00039	Screw, 10-24 x 1.000 RHM	4
H12	2-00-01246	Nut, Hex Fiber Insert #10-24	6
H15	2-00-00221	Screw, 1/4-20 x .750 HHC	4
H72	2-00-00518	Lock Washer, Helical Spring	4
H115	2-00-03063	Screw, #10-24 x .750 THM	2
H124	2-00-02296	Lock Washer, #10 Ext. Shakeproof	2

C1143a/9901

TURN SIGNAL OPTION - EXPLODED VIEW



DIESEL SPARE PARTS KIT

OPTION NO. 0860-600

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-25-08222	Flap, Broom Door Outer	2
2	8-25-08198	Flap, Broom Door Inner	2
3	8-25-08194	Flap, Wheel Well	1
4	8-25-08197	Flap, Rear Inside Frame	1
5	8-25-08196	Flap, Frame Rear Outside	1
6	8-24-04139-1	Hopper Panel Filter	1
7	8-25-08202	Hopper Flap	1
8	8-68-05075	Seal, Dump Door - Sides	2
9	8-68-05077	Seal, Dump Door - Lip	1
10	8-24-04106	Engine Air Cleaner Element	1
11	2-60-02242	Belt, Alternator	1
12	2-60-02241	Fuel Filter	1
13	2-60-02240	Engine Oil Filter	1
14	8-24-04118	Hydraulic Filter Element	1
15	8-68-05076	Seal, Dump Door - Foam	1

9901

GAS SPARE PARTS KIT**OPTION NO. 0860-574**

<u>KEY NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	8-25-08222	Flap, Broom Door Outer	2
2	8-25-08198	Flap, Broom Door Inner	2
3	8-25-08194	Flap, Wheel Well	1
4	8-25-08197	Flap, Rear Inside Frame	1
5	8-25-08196	Flap, Frame Rear Outside	1
6	8-24-04139-1	Hopper Panel Filter	1
7	8-25-08202	Hopper Flap	1
8	8-68-05075	Seal, Dump Door-Sides	2
9	8-68-05077	Seal, Dump Door-Lip	1
10	8-24-04106	Engine Air Cleaner Element	1
11	2-00-05248	V-Belt, Alternator	1
12	8-24-04138	Fuel Filter	1
13	8-24-04099	Engine Oil Filter	1
14	8-24-04118	Hydraulic Filter Element	1
15	8-68-05076	Seal, Dump Door Foam	1

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**AMERICAN-LINCOLN
RIDER "BUMPER-TO-BUMPER" LIMITED WARRANTY**

I. COVERAGE

A. Subject to the terms and limitations stated herein, American-Lincoln warrants, to the original purchaser only, to repair or replace, at American Lincoln's option and upon the terms set out below, this product or any parts thereof (excluding normal maintenance items) which are defective in materials or workmanship, for a period of (2) two years or 2,000 hours of normal operation, from the date of purchase, whichever comes first, provided that the product is operated and maintained in accordance with American-Lincoln's Maintenance and Operations Instruction.

1. (a) During the first (90) ninety days from the date of purchase, American-Lincoln will provide, without charge, parts and on-site labor (including up to three (3) hours total round-trip travel time) to remedy a defective product or part.

(b) During the next (9) nine months or 1,000 hours (whichever come first) American-Lincoln will provide, without charge, parts and labor to remedy a defective product or part; however all travel time for on-site remedy and all shipping and freight charges for off-site remedy of the product or parts thereof shall be the sole responsibility of the purchaser.

(c) During the next (12) twelve months or a total of 2000 hours (whichever comes first) American Lincoln will provide, without charge, parts to remedy a defective product or part, however all labor, travel time for on-site remedy and all shipping and freight charges for off-site remedy of the product or parts thereof shall be the sole responsibility of the purchaser.

B. In addition to the terms listed above, if applicable, the following additional warranty coverage is applied.

1. (a) American-Lincoln warrants to the original purchaser only, to repair or replace, at American Lincoln's option, and upon the terms set out below, the drive line electrical components including the electric drive propulsion motor, electric wheel drive motor and electronic drive controller, and all hydraulic pumps and motors, to provide replacement parts which are defective in material or workmanship, for a period of (3) years or 3000 hours (whichever comes first) provided that the product is operated and maintained in accordance with American-Lincoln's Maintenance and Operations Instruction.

(b) American Lincoln warrants to the original purchaser only, to repair or replace, at American Lincoln's option and upon the terms set out below, the internal combustion liquid cooled engine (long block only), those parts which are found to be defective in material or workmanship for 5 years unlimited hours. American Lincoln reserves the right to have such failures evaluated by a local authorized dealer for those engines to determine warranty eligibility. All labor, travel time, shipping and freight charges shall be the sole responsibility of the purchaser. NOTE: All other parts on the engine, i.e. carburetors alternators, etc. are covered by the two year 2000 hour standard warranty.

(c) American-Lincoln, warrants to the original purchaser only, to repair or replace, at American Lincoln's option and upon the terms set out below, the main frame, debris hopper, solution and recovery tank, for the life of the machine against failure caused by defects in workmanship or total rust through. For purposes of this coverage, cosmetic deterioration or surface rust does not constitute a failure.

(d) American-Lincoln, warrants to the original purchaser only and upon terms set below, to replace batteries which become unserviceable under normal use, within a period of ninety (90) days from date of sale to the original user with new batteries of equal value. After expiration of the above ninety (90) day period, any battery which fails under normal use will be adjusted to the original user with a new battery of equal specifications on an eighteen (18) months pro rate basis from the date of purchase. Adjustment will be determined using the then current list price, plus transportation costs. Warranty is rendered null and void if battery is not kept filled to the proper level with distilled water.

II. EXCLUSIONS

A. This warranty **does not** cover normal maintenance parts and labor, including but not limited to, rubber parts, seals, flaps, brushes, engine maintenance parts, hoses, carbon motor brushes, fluids and routine adjustments.

B. This warranty **does not** cover damage or failure of the product or any parts thereof which is the result of misuse, negligent operation, handling or repair, or which is the result of modification by any person other than an authorized American-Lincoln service representative.

III. LIMITATIONS

A. AMERICAN-LINCOLN MAKES NO WARRANTIES OTHER THAN THOSE SPECIFIED HEREIN. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. AMERICAN-LINCOLN LIABILITY UNDER THIS WARRANTY IS LIMITED TO REPAIR AND/OR REPLACEMENT OF PRODUCTS OR PARTS AS SET OUT HEREIN. AMERICAN-LINCOLN SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM A PRODUCT OR PART DEFECT OR FAILURE. ANY EXTENSIONS OF OR MODIFICATIONS MADE TO THIS WARRANTY BY A DISTRIBUTOR OF AMERICAN-LINCOLN ARE THE SOLE RESPONSIBILITY OF THE DISTRIBUTOR.

IV. Warranty eligibility terms and conditions:

1. The original purchaser shall promptly complete and return the warranty and installation registration form included with the product at the time of the purchase;
2. Upon product or part failure, the original purchaser shall promptly contact the nearest authorized American-Lincoln Servicing Representative.
3. American Lincoln reserves the rights to request that defective parts or product are returned to American Lincoln for determination of claim eligibility.

American-Lincoln Technology reserves the right to make changes and improvements to its machines without notice. For best results, use only the correct American-Lincoln Service parts.