

RH40140

RH48140

RH60140

RoadHog

For units built after May 2010

MANUAL

- Operation
- Maintenance
- Service
- Parts
- Warranty

Serial number _____

Date released for shipment _____

PUBLICATION DATE: 09/10/13

INTRODUCTION

Thank you for your investment in Roadhog Inc. We are confident that you will find that your Roadhog Inc is the easiest to operate, safest, most durable, and most efficient attachment on the market.

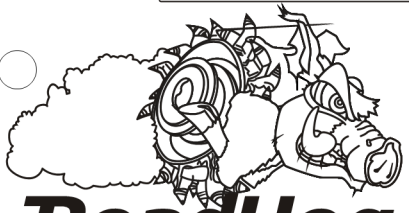
Your Roadhog Inc is equipped with high performance, heavy duty components. To ensure that these components operate properly and effectively, this manual must be followed. If any question regarding the operation or performance of this attachment exists, contact your Roadhog Inc dealer at once.

This manual contains safety instructions, guidelines for efficient operation, troubleshooting tips, and service maintenance procedures. When applicable, the terms “right” and “left” are referenced from a sitting position and facing forward in the loader.

Throughout this manual, information is provided in boxes and highlighted by the word **IMPORTANT**. This information should be read carefully. If complied with, it will improve the operating efficiency of the unit and provide directives that will minimize costly breakdowns and extend the life of the machine.

This warning symbol appears throughout this manual and indicates that a safety hazard may exist if the information given is not properly followed. When the warning signal is encountered in the manual or on the unit, Be Alert! Your personal safety is involved!

For more copies of this manual or the necessary safety decals, contact your Roadhog Inc dealer.

MODEL #:	<input type="text"/>
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RoadHog	
RoadHog Inc. Brownsburg, Indiana PH: 877-640-9975 www.roadhog-inc.com	

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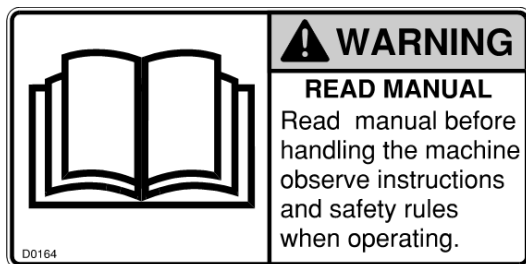
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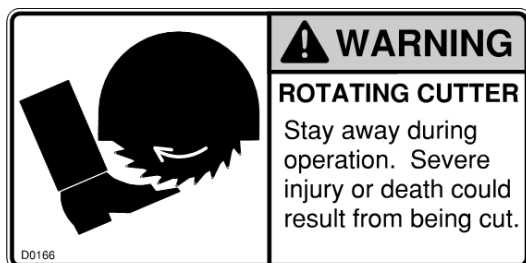
SAFETY DECALS

The safety decals existing on the attachment should be clearly readable and always followed. The location and description of the decals is shown in the parts diagram.

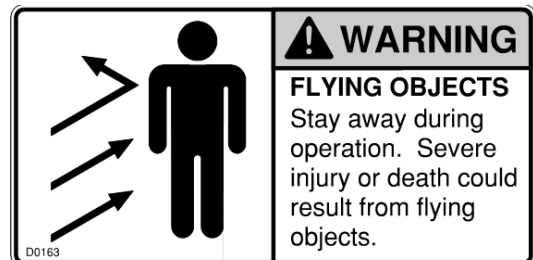
The READ MANUAL decal warns the operator to read this manual before operating the attachment.



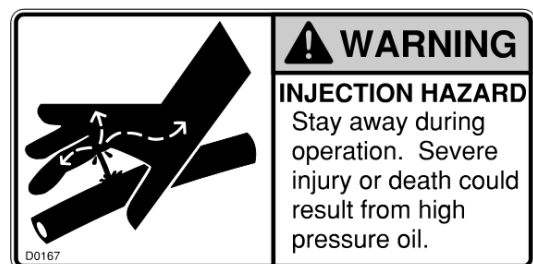
The ROTATING CUTTER decal warns the operator and bystanders to stay away during operation.



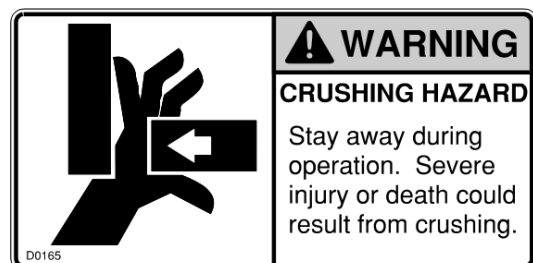
The FLYING OBJECTS decal warns the operator the operator and bystanders to stay away during operation.



The INJECTION HAZARD decal warns the operator and bystanders to stay away during operation.



The CRUSHING HAZARD decal warns the operator and bystanders to stay away during operation.



SAFETY PRECAUTIONS

ACCIDENTS ARE PREVENTABLE WITH YOUR HELP

Understand and comply with applicable laws and regulations.

- Call local utilities before you dig.
1-888-258-0808
- Know the location of underground gas, water and electrical lines.
- Inspect area for holes, drop-offs, or unstable ground.
- Know the weight limitations of operating surfaces and clearances.
- Remember: Safe operation begins with the operator.

WARNING

BEFORE OPERATING THIS EQUIPMENT, THE FOLLOWING SAFETY INFORMATION SHOULD BE READ AND UNDERSTOOD. IN ADDITION, EACH INDIVIDUAL WORKING WITH THE EQUIPMENT SHOULD BE FAMILIAR WITH THE SAFETY PRECAUTIONS

MANDATORY SAFETY SHUTDOWN PROCEDURE

BEFORE cleaning, adjusting, lubricating, or servicing this unit, **ALWAYS** follow the **MANDATORY SAFETY SHUTDOWN PROCEDURE**:

1. Lower loader arms and roll attachment forward until it is flat on the ground.
2. Apply loader parking brake and stop the loader engine.
3. Remove loader key and keep with you while you are working on the attachment.
4. Turn cold planer engine off and lock control panel using the PIN security feature.

WARNING

FAILURE TO FOLLOW THE PROCEDURES BEFORE CLEANING, ADJUSTING, LUBRICATING, OR SERVICING THIS UNIT COULD LEAD TO SERIOUS INJURY OR DEATH.

Exercise extreme caution when attaching and removing the attachment, operating with other workers present, and servicing the unit.

Roadhog Inc makes operator safety a priority when designing machinery. Exposed moving parts are guarded whenever possible for safety. However, not all moving parts can be shielded in order to ensure proper operation. This operator's manual and safety decals on the machine provide important safety information when observed closely. If safety decals become difficult to read, replace them immediately. (see "Safety Decals").

SAFETY

A careful operator is the best protection against accidents. Most accidents involving operators of industrial equipment are caused by failure to observe basic safety precautions. Know the equipment and worksite before you operate. Familiarize yourself with the safety precautions listed below.

WARNING

THE FOLLOWING PRECAUTIONS MUST BE OBSERVED FOR THE SAFETY OF THE OPERATOR AND/OR SERVICE PERSONNEL.

1. Read and observe all safety information and decals on the skid steer loader and attachment **BEFORE** operating the unit!
2. Refer to the **SAFETY** section of your loaders operator's manual and observe all safety recommendations set forth in the manual.
3. When loading, keep attachment as low to ramps & trailer as possible.
4. Always lower the loader arms fully before leaving the operator's seat.

WARNING

NEVER CRAWL UNDER RAISED LOADER ARMS.

5. **BE SURE** to raise the attachment totally off the ground **BEFORE** side shifting.
6. **CAREFULLY** inspect ALL hydraulic hoses and connections on a routine basis; Always use a piece of cardboard when searching for leaks.
7. **BE SURE** to exercise the above **MANDATORY SAFETY SHUTDOWN** procedure, **BEFORE** proceeding with any work on the attachment.

WARNING

NEVER USE YOUR HANDS AS ESCAPING FLUID UNDER PRESSURE CAN PENETRATE THE SKIN CAUSING SERIOUS INJURY. IF HYDRAULIC FLUID DOES PENETRATE THE SKIN, SEEK IMMEDIATE MEDICAL ATTENTION BY A DOCTOR FAMILIAR WITH THIS TYPE OF INJURY OR GANGRENE MAY RESULT.

WARNING

NEVER ALLOW HANDS OR FEET NEAR ANY WORKING PART OF THE ATTACHMENT UNLESS THE MANDATORY SAFETY SHUTDOWN PROCEDURE HAS BEEN COMPLETED.

SETUP



WARNING

READ THIS ENTIRE MANUAL AS WELL AS THE DECALS ON THE ATTACHMENT BEFORE ATTEMPTING ANY MAINTENANCE, SERVICE OR SETUP OF THE UNIT.

Although the Roadhog Inc is supplied fully assembled, some simple checks should be performed before operation begins.

Safety Decals

The safety decals existing on the attachment should be clearly readable and always followed. The location and description of the decals is shown in the exploded diagram. Copies of the decals are shown in “**Safety Decals**” section.

Lubrication

The dead shaft bearing, supporting the left hand side of the drum, should be lubricated at least once a week. Daily lubrication may be required during heavy use or in extremely dusty conditions.

The planetary oil should be changed after the first 50 hours of operation, and then once a year after that.

Hoses / Fittings

Hydraulic fittings are used to connect all hoses. All fittings should be tight and free of hydraulic leaks. Hoses must be free of crimps or cuts that might result in leakage. Check your attachment before operation to make sure all hose routings are kink-free and allow for maximum movement of all depth and side shift functions required during normal operation.

Drum Assembly

For proper operation, teeth must be installed in every holder on the drum. Welds on holder and blocks should be inspected weekly for cracks. Any cracks should be fixed as soon as possible. Teeth should be inspected daily for wear. Tooth should be allowed to freely rotate within their holders. Holders should be inspected daily for wear. Holder wear is not typically covered under warranty. Holders may be hard-faced to replace worn holder material.

OPERATION

The cold planer is an engine powered attachment intended for cutting asphalt or concrete surfaces. The performance of the attachment can vary greatly depending upon how it is used and operated. Therefore, the recommended operating procedures contained within this manual should be followed at all times for maximum productivity.

Prior to operating the attachment, read this entire manual. Follow all safety guidelines in this manual and safety decals on the unit. Make sure that all guards, shields, and



WARNING

ALWAYS follow the loader manufacturers recommended procedures for mounting attachments to the loader. Refer to attachment mounting instructions in the loaders operating manual. **Severe injury or death could result from crushing.**

Attaching to Loader Pin on style mounting

To attach the unit to the loader, start the loader and rotate the coupler out. Move the machine forward and align the male bosses on the male portion of the loader attach with the female bosses on the Roadhog. Insert pins and secure pins to bosses per the manufacturers recommended procedure.

Attaching to Loader quick attach style mounting

To attach the unit to the loader, start the loader and rotate the quick coupler out. Move the machine forward and align the male portion of the quick attach on the loader with the female portion of the quick attach on the Roadhog. Secure the quick attach per the manufacturers recommended procedure.

GENERAL CONTROL SYSTEM

Units can be operated from either the panel or using the radio controller. The master panel has illuminated push buttons that change colors during operation which indicate the following and provide visual feedback to the operator.

RED—indicates that a function cannot be operated.

GREEN—means it can be operated

Flashing GREEN—tells the operator which mode or function is currently active.

Amber—used to tell the operator the water kit is in auto mode and slave to the clutch.



WARNING

ALWAYS follow the loader's manufacturers recommended operating procedures found in the loader manufacturer's operating manual for proper operation of the wheel loader.

Severe injury or death could result from improper operation of the wheel loader.

Loader operation

1. Clear all bystanders.
2. Enter loaders operator platform.
3. Engage parking brake.
4. Start loader.
5. Start Roadhog (see instructions on pages 10 thru 13 of this manual)
4. Roll out the loader bucket function so that the Roadhog depth skis are level and in full contact with the pavement.
5. Lower the Roadhog cutting drum to the desired depth per instructions on pages 10 thru 13 of this manual.
6. Apply the foot brake.
7. Place the loaders transmission in 1st gear.
Loader engine should be at idle.
8. Release parking brake and foot brake. This step will start the cutting operation.
NOTE: Cutting drum feed rate and loader ground speed) is dependent upon depth of cut, age of pavement, size and type of aggregate in pavement, density of pavement and ambient temperature.
9. Loader ground speed should be adjusted up or down after the above factors in step 8 have been evaluated.
10. Adjust loader's engine rpm and the loader's ground speed to maximize the load on the Roadhog's cutting drum.
11. If the cutting drum on the Roadhog stalls, back up the loader or lift or curl the Roadhog out of the pavement using the loader's bucket function.



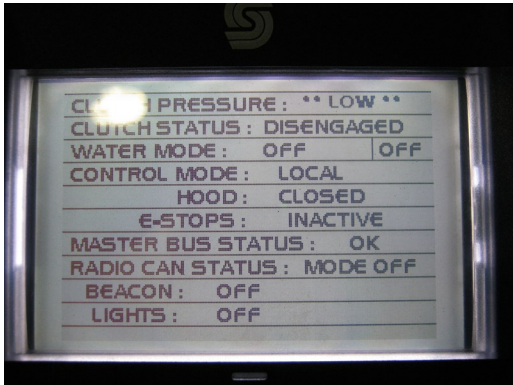
WARNING

If an emergency arises, immediately apply the wheel loader's brakes and Stop the wheel loader's engine and the Roadhog's engine.

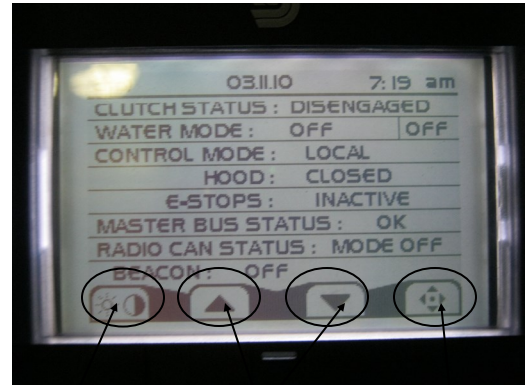
The Roadhog's engine may be stopped by pushing the red shutdown button on the master panel or by pushing the red emergency stop button on the remote transmitter.

LCD Display Screens

Home Page



Home Page w/ menu button



Contrast

Page Up/Down

Setup Menu

Note: The display is not a touch screen. There are buttons just below each image on the screen. To pull up the function buttons press the left button once. That will activate the screen options. Push the button to activate the function.

Home Page - Sub-Screens

Note: After activation the buttons, to move between sub screens just press the page up/down button.



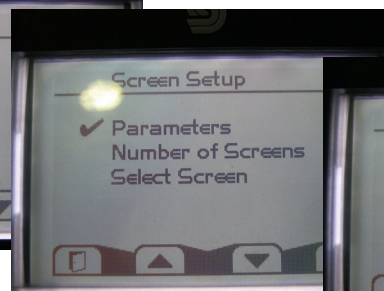
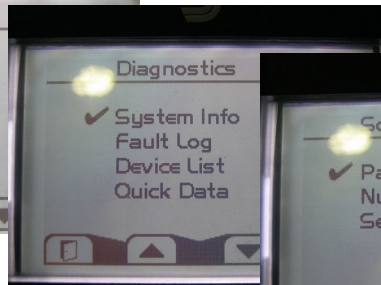
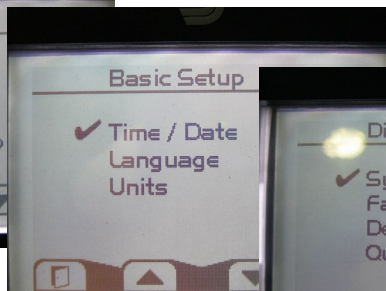
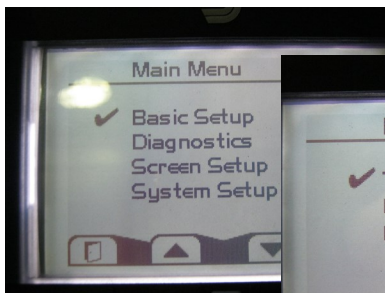
Note: Screen 2 displays; hour meter, torque percentage, fuel efficiency, and voltage options.



Note: Screen 3 displays; RPM, oil press, and engine temperature.

Setup Main Menu and Sub-Screens

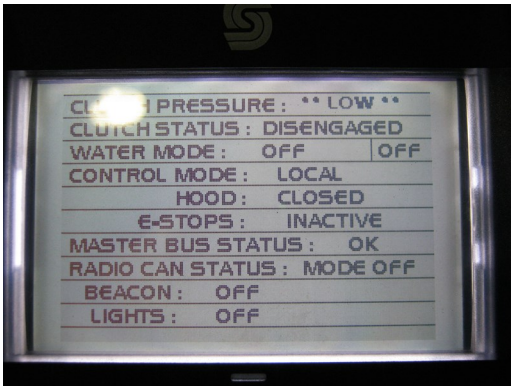
Note: To enter setup menus, press the setup button on the home page.



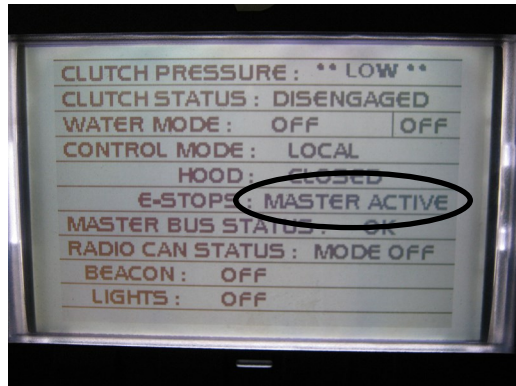
LCD Display Screens (continued)

Changes to screen during operations of Road Hog

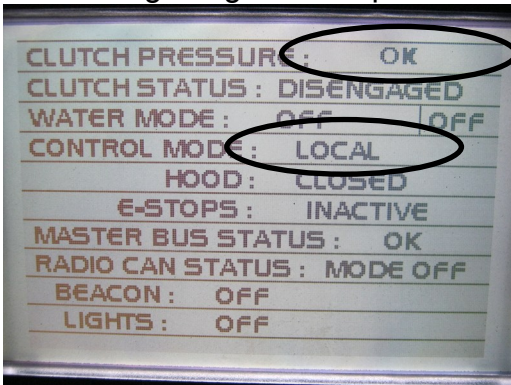
Home Page with just power on



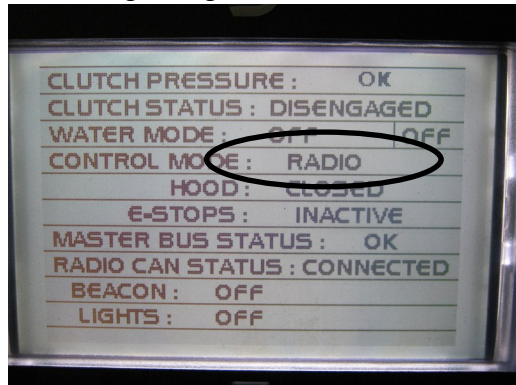
Home Page with e-stop on panel



Home Page engine on in panel mode



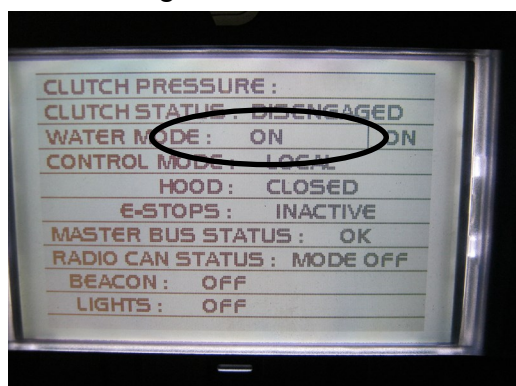
Home Page engine on in radio mode



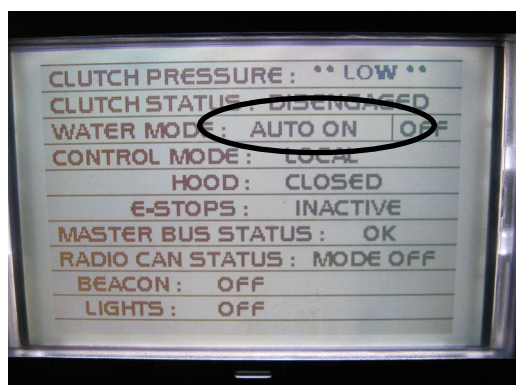
Home Page clutch engaged



Home Page water kit on





Home Page water kit slave to clutch





STARTING PROCEDURE- USING MASTER PANEL ON ROADHOG

This procedure requires another operator at ground level.

Engine start


1. Follow all safety procedures.
2. Turn power switch until the control panel lights up.
3. Ensure radio button is in “panel”  mode (PANEL will display on LCD screen & button will be constantly green).
4. Turn and pull red shutdown button out on master panel.
5. Press “engine start”  button on master panel until engine starts.

Drum drive engagement

1. Follow all safety procedures.
2. Allow engine to run for 2 to 3 minutes.
3. Push “engine throttle”  button on master panel for 2 seconds to engage high idle.
4. Hold “clutch engage”  button on master panel for 4 to 8 seconds (Button will flash green)

NOTE: momentary delay of engagement is normal
This engagement may take longer in cooler temperatures.

Drum depth engagement



1. Press and hold “depth down”  button on master panel down lower the cutting drum until the desired cutting depth is reached. Press the “depth up” button on master panel up to raise the cutting drum. Release button once desired depth is reached.

Side shift engagement

1. Press and hold “side shift”  button on master panel. Hold until desired position is reached. Release button

Tilt engagement IMPORTANT: Always preset the desired angle and depth of cut prior to making

the cut.

1. Press and hold the “tilt”  button until the desired angle is reached.
2. Press and hold the “depth down”  button until the desired depth of cut is reached.
3. Lower the drum into the cut by lowering the loader arms. Only one ski will contact the ground.




Normal shutdown procedure using master panel (non-emergency only)

1. Press “clutch disengage”  button to disengage clutch and drum
2. Press “engine throttle”  button on master panel to engage low idle
3. Press red “shutdown” button on master panel to stop engine

STARTING PROCEDURE- USING MASTER PANEL ON ROADHOG (continued)

This procedure requires another operator at ground level.

Water Kit Control

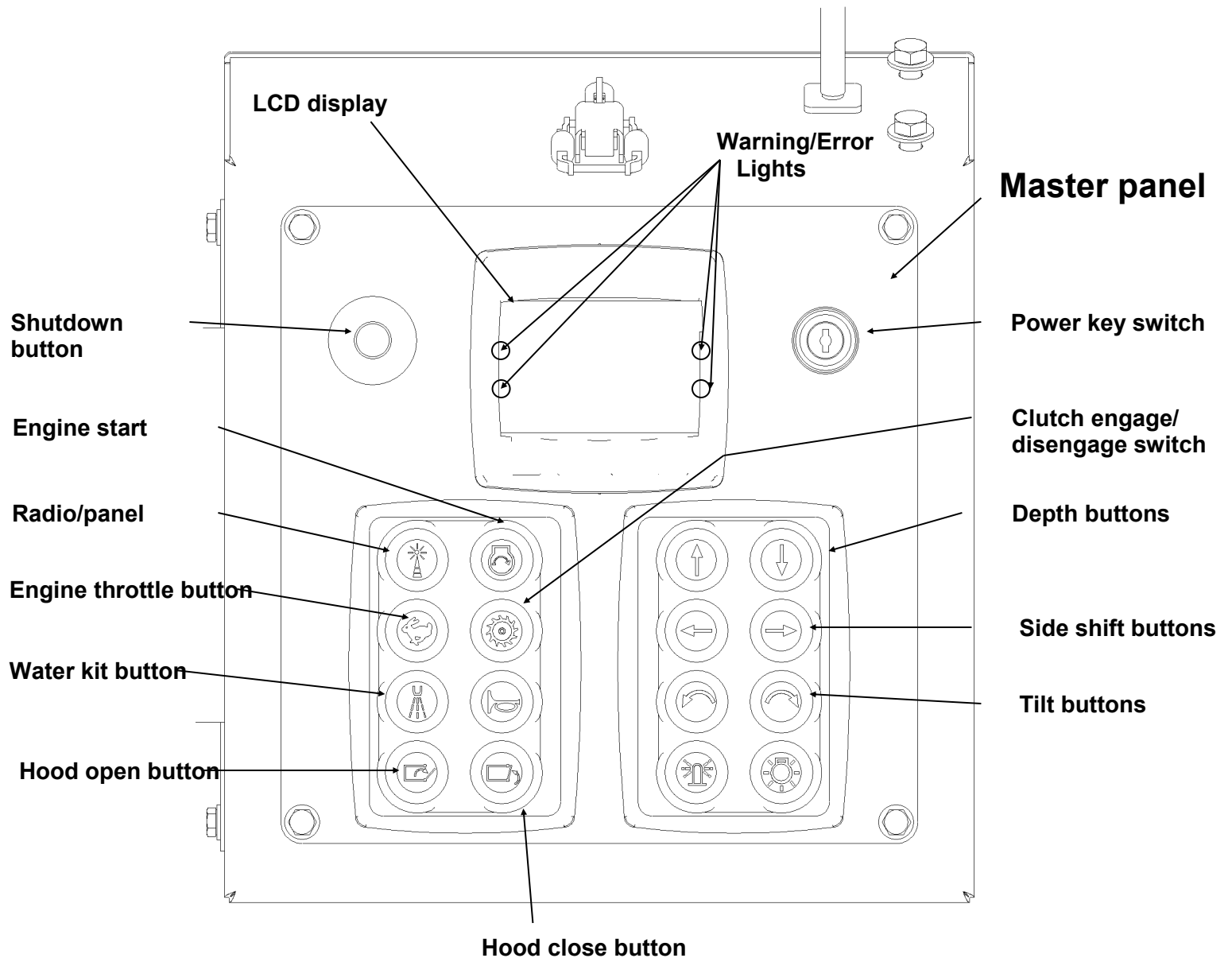
1. Once the engine is started.
2. Press “water kit button”  button on master panel once to start the pump. (Button will flash green when on)
3. Press “water kit button”  button on master panel twice to activate slave to clutch. (Button will be solid amber when in auto)
4. Press “water kit button”  button on master panel three times to stop the pump. (Button will be solid green when off)

Fully lower the loader arms and then roll out the bucket function until the planer skis are level with the pavement.

Move the throttle to the full rpm position. and keep it there during the milling operations. Begin the operation by setting the depth cylinders to zero depth at the depth gauge. Lower the drum into the cut to the desired depth. Move forward at a speed that will allow the drum to mill or cut efficiently without stalling.

NOTE. Milling speed will depend on tooth condition, age and density of the material, aggregate size and ambient temperature.





Diagram of master panel





STARTING AND OPERATING PROCEDURE - USING REMOTE TRANSMITTER

This procedure may be done at ground level using an additional operator, or may be done by a single operator from the wheel loader's operator seat.

Engine start


1. Follow all safety procedures
2. Turn power key until the master panel lights up.
3. Press ON button. 
4. Ensure master panel button is in "radio"  mode (RADIO will display on LCD screen and button will flash green).
5. Check for green power indicator light on remote transmitter
6. Turn and pull red stop button "out" on master panel
7. Press "fuel run/stop"  button on remote transmitter once
1. Press "engine start"  button on remote transmitter until engine starts

Drum drive engagement


1. Follow all safety procedures
2. Allow engine to run for 2 to 3 minutes.
3. Press "throttle high/low"  button on remote transmitter once to engage high idle
4. Press "clutch engage"  button on remote transmitter for 4 to 8 seconds to engage drum

NOTE: Momentary delay of engagement is normal
This engagement may take longer in cooler temperatures.




Drum depth engagement

1. Press and hold "drum down"  button on remote transmitter to lower the cutting drum until the desired cutting depth is reached. Use the drum up arrow button on remote transmitter to raise the cutting drum.

Side shift engagement

1. Press and hold "side  shift" button on remote transmitter. Hold until desired position is reached. Release button

Tilt engagement IMPORTANT: Always preset the desired angle and depth of cut prior to making

- the cut. 
1. Press and hold the "tilt"  button until the desired angle is reached.
 2. Press and hold the "depth"  button until the desired depth of cut is reached.
 3. Lower the drum into the cut by lowering the loader arms. Only one ski will contact the ground.

STARTING AND OPERATING PROCEDURE - USING REMOTE TRANSMITTER

This procedure may be done at ground level using an additional operator, or may be done by a single operator from the wheel loader's operator seat.

Normal shutdown procedure using remote (non- emergency only)




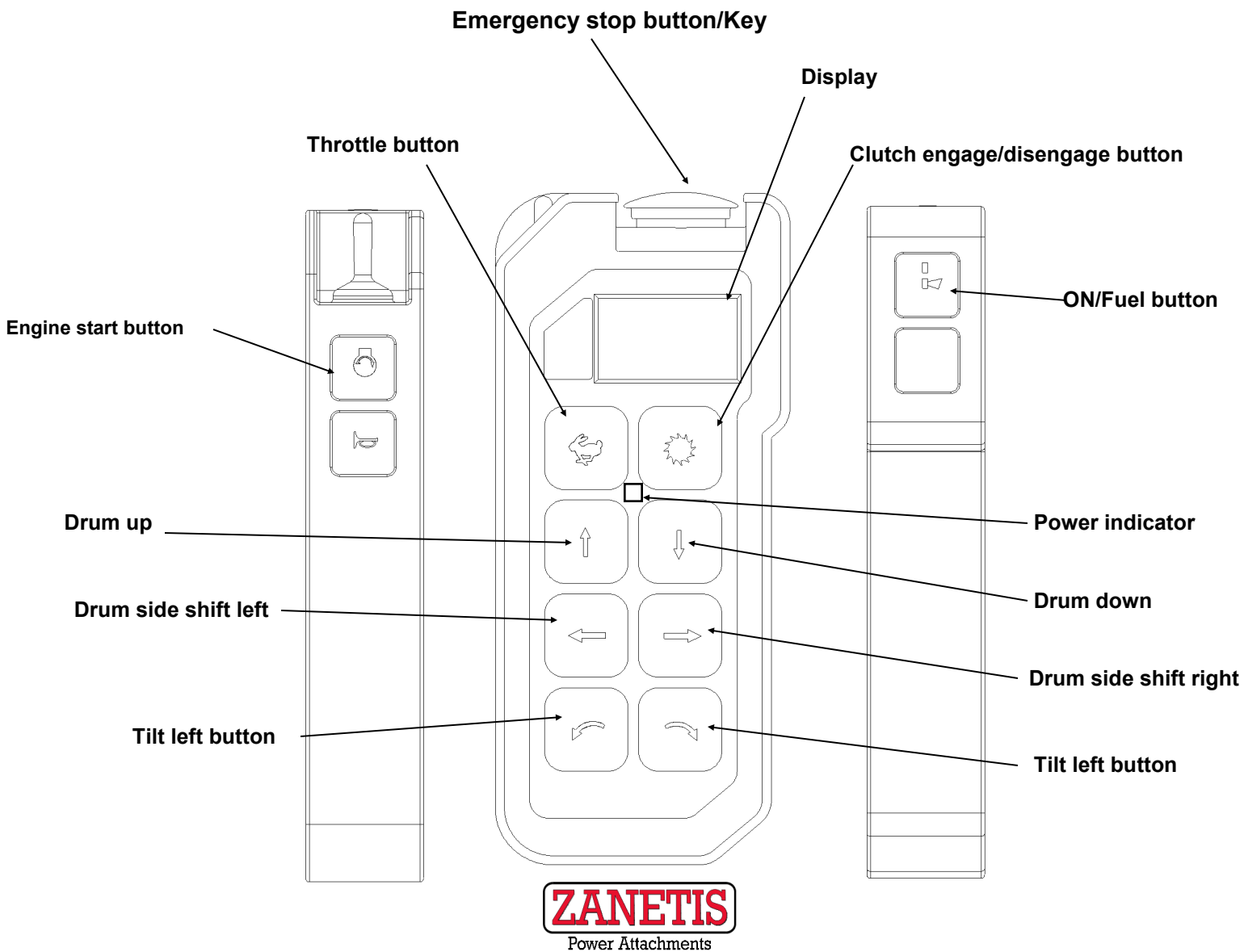
1. Press “ clutch disengage”  button to disengage clutch and drum
2. Press “ throttle high/low”  button to engage low idle
3. Press “ fuel run/stop”  button to shut off fuel flow

Diagram of Radio



MAINTENANCE

Proper maintenance of the attachment will result in longer life and the more productive and cost effective operation. There are two basic categories of maintenance required, pick/holder replacement and component lubrication. For proper operation, the picks should be checked each four (4) hours and lubricated daily with a water based emulsifying agent to ensure that they can freely rotate in their holders.

WARNING

BEFORE PERFORMING ANY MAINTENANCE ON THE UNIT, PERFORM THE MANDATORY SAFETY SHUTDOWN PROCEDURE.

Pick/Holder Replacement

As regular use takes place, normal wear of the carbide picks will occur with the outer most picks wearing first. The pick tool included with the cold planer should be used to remove the picks from the cast holders. In the event the pick tool is not available, any hardened punch or tool allowing access to the bottom of the holders can be used.

IMPORTANT

NOTE: always disconnect the ECU, radio receiver and master panel prior to any welding.

See page 39 for these 3 locations.

Welder must be grounded directly to drum during pick holder replacement or **SEVERE BEARING DAMAGE WILL RESULT.**

A length of pipe with a 3/4 to 1 inch inside diameter can be placed over the pick to protect it from a direct hit. Striking a small piece of wood placed on the pick to absorb the shock will prevent damage.

WARNING

NEVER DRIVE THE PICK BY STRIKING DIRECTLY ON THE END OF THE PICK AS THIS CAN CAUSE THE PICK TO CHIP AND CAUSE INJURY OR CREATE SMALL STRESS FRACTURES IN THE PICK, RESULTING IN PREMATURE WEAR.

WARNING

ALWAYS WEAR SAFETY GLASSES WHEN PERFORMING THIS OPERATION. HARDENED TOOLS AND PICKS CAN SHATTER CAUSING INJURY.

The factory installed carbide pick chosen for use is a general purpose pick as the cold planer is designed for both asphalt and concrete applications. Picks designed for extended periods of concrete cutting are available from the factory or your dealer.

To prevent the picks from seizing in the holders, the picks should be sprayed with a lubricate at the end of each day. This will break down the asphalt build up in the holders and prevent premature wear by allowing the picks to rotate in the holders. Excess lubricant should be caught in a collection pan and properly disposed of.

If the pick remains in the holder beyond its intended replacement point, it reduces the cutting performance and will not protect the holder. Inspect the cutting drum every hour of operation. Check the picks and holders for wear. If the picks are worn enough to indicate slight holder wear, replace the picks.

Tooth Maintenance

Tooth maintenance (and rotation) is critical to extending the life of the tooth and tooth holder and overall production of the RoadHog.

IMPORTANT

Check the condition of the teeth every 30 minutes, until wear patterns are determined under current conditions.

Tooth life varies with depth, density, material, aggregate and maintenance, which includes allowing the tooth to rotate.

Various tooth styles are available to match material and aggregate variables, which may increase tooth life and production.
Consult the factory for further assistance.

The tooth has two functions: serves as the consumable cutting tool *and* it protects the holder.

The tooth must be allowed to rotate in its' holder. If it locks up, then tooth and holder wear is greatly accelerated

If the tooth is allowed to remain past its' usable life, the holder will exhibit premature wear characteristics. (see photo below).

To promote rotation, spray the teeth daily with a water based asphalt emulsifier to break down asphalt emulsion.
Example: Zep's Orange Response (part number 0750).

Water should always be used, as it may increase tooth life by 20 to 40% and suppresses the milling dust.

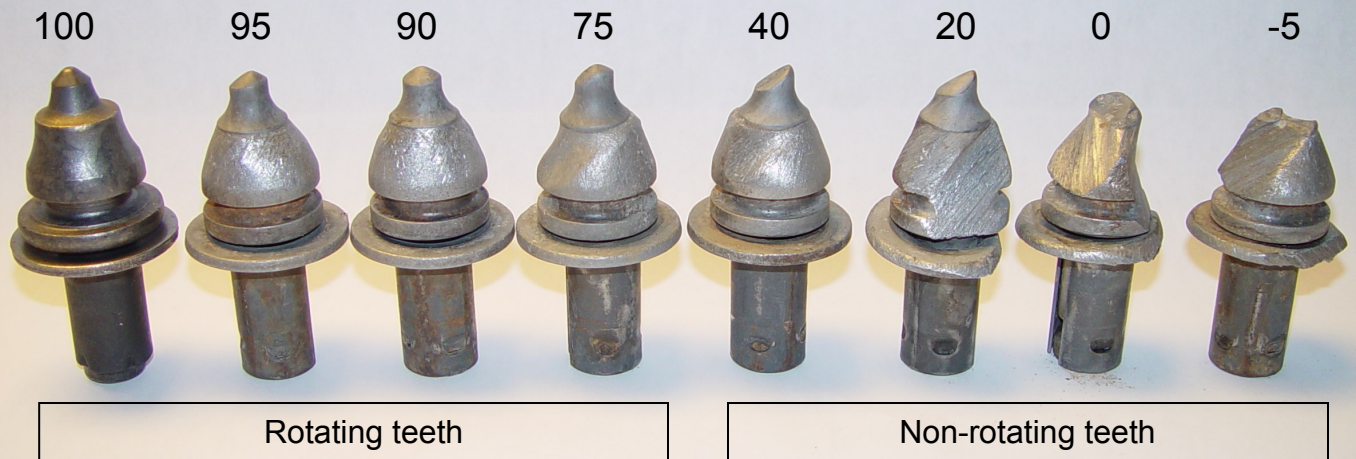
Edge teeth will always wear faster than center teeth, due to side loading of the drum during the loader's steering corrections.

Edge holders and drum edges are hard-faced at the factory and will be required throughout the machines life.



Tooth is no longer rotating in the holder, causing premature tooth and holder wear.

Examples of remaining tooth life (%)



Teeth may last twice as long if they are free to rotate in their holder

Warranty will not be allowed for failure due to the following: normal wear and tear, abuse or accident, excessive flow or pressure, modification of original equipment, improper service or maintenance.

Roadhog does not warrant ANY ground engaging parts (drums, teeth, holders or bases) against wear, unless the wear is determined by Roadhog to have been caused by an engineering or manufacturing defect.

Date / /

Check hydraulic oil level and add as required _____

Grease the depth slide bars at each side of chassis _____

Apply a dry spray lube on side shift bar(s) _____

All of the above items

Torque Specifications Table

BOLT SIZE	TORQUE (lb-ft)
1/4-20 UNC	8
5/16-18 UNC	17
3/8-16 UNC	30
7/16-14 UNC	50
1/2-13 UNC	75
1/2-20 UNF	90
5/8-11 UNC	150
3/4-10 UNC	260
7/8-9 UNC	430
1-8 UNC	640
1 1/8-7 UNC	800

NOTE: Unless otherwise specified, all bolts to be torqued as follows. Roadhog bolts only-refer to engine service information for engine bolt torques.

Drive Belt Maintenance (140hp RoadHogs)

The tension on new drive belt should be checked after the first 15 hours of operation and then every 100 hours of operation.

RH40140, RH48140, RH60140 Drive belt tightening Instructions:

1. Shut engine down and turn engine control panel off. Press Red stop button on panel, do not turn to reset. Turn remote off and remove remote key.
2. Remove belt covers.
3. Loosen four bolts holding idler arm weldment to chassis. Only loosen slightly to allow idler arm to slide but not deflect enough to affect belt tension.
4. Loosen lock nut on adjuster screw.
5. Tighten or loosen adjuster screw to adjust belt tension.
6. Check tension with **Gates Sonic Tension Meter (Model 507C)** as follows:
 - Connect Microphone to meter.
 - Press POWER to turn meter on.
 - Press Hz to switch readout to Hertz.
 - Press MEASURE. Display should change to a horizontal line.
 - Hold the microphone about ½ inch away from belt at the midpoint of the front span of the belt. Strike the belt with hand.
 - Horizontal line on meter should change to a wavy line and read out the belt natural frequency in Hertz.
 - Meter will not read a frequency less than 15 Hz, so belt has to be fairly tight before the meter can read the frequency.
 - Also, high ambient noise levels can prevent the meter from reading the frequency.
7. Repeat steps 5 and 6 until belt tension is 34-35 Hz for a new belt and 31-33 Hz for a used belt (more than 15 hours).
8. Torque four idler arm bolts to 75 lb.-ft.
9. Recheck tension, adjust if necessary.
10. Start unit, engage clutch for 2-3 minutes. **USE CAUTION; BELT COVERS ARE OFF!**
11. Repeat step 1 and Recheck tension, adjust if necessary.
12. Reinstall all belt covers.

IMPORTANT

Gates Tension Meter (Model 507C) must be used to check and set belt tension.

Failure to check and set belt tension may result in incorrect belt tension. Incorrect belt tension may cause premature belt failure, and is not covered under warranty.

Sonic Tension Meter 507C

Consistent, accurate tension readings every time!

Now you can get consistent, accurate tension readings without the stress, thanks to the Gates Sonic Tension Meter. It measures belt tension by analyzing the harmonic characteristics of a vibrating belt. Simply strum the belt like a guitar string and the meter takes care of the rest.

The force and deflection method used to be the only reliable way to test belt tension. Of course, it required a spring tester, plenty of muscle, a piece of string and unfortunately, at least three hands.

Belts, like strings, vibrate at a particular natural frequency based on mass and span length. Gates unique Sonic Tension Meter simply converts this frequency into a measurement of tension.

Here's how it works:

First, enter belt mass constant, belt width and span length into meter using built-in keypad. Next, hold meter sensor to belt span, then lightly strum belt to make it vibrate. Press "measure" button to obtain reading and the meter quickly converts vibrations into belt tension. Readings are displayed on a liquid-crystal screen.

* Belt mass constants are listed on a data card that comes with the Sonic Tension Meter.

The Driving Force in Power Transmission®



SERVICE

WARNING

BEFORE SERVICING THIS UNIT, THE MANDATORY SAFETY SHUTDOWN PROCEDURE MUST BE COMPLETED. SEE "SAFETY" SECTION.

Lubrication

Lubricate the dead shaft bearing at least once a week..

The planetary gearbox contains synthetic EP90 gear oil and should be half full during operation. The planetary gear oil should be drained and replaced each year.

For pick maintenance, consult the maintenance section on page 14.

For additional information see the check list on page 15.

WARNING

EXERCISE EXTREME CAUTION DURING THIS OPERATION TO PREVENT TIPPING OF THE UNIT.

Drum Removal

1. Perform mandatory shutdown procedure with the RoadHog adjusted to the zero depth. Ensure that the drum is sitting on a stable surface and is chocked to prevent movement.
2. Remove belt guard and loosen belt idler, and remove belt.
3. Remove (8) planetary to chassis bolts. Remove (4) input adapter bolts. Remove (4) dead shaft bearing to chassis bolts.
4. Lift RoadHog off of drum using a hoist or the wheel loader.
5. Reverse steps for reassembly.

WARNING

IF THE DRUM DOES NOT REMAIN ON THE FLOOR, LOWER THE ROADHOG CHASSIS, REVIEW STEPS 1 THRU 5. DO NOT ATTEMPT TO DISLodge THE DRUM WHILE THE PLANER FRAME IS IN THE RAISED POSITION. NEVER PLACE HANDS OR ANY PART OF YOUR BODY IN, AROUND, OR UNDER THE DRUM, AS IT MAY FALL CAUSING SERIOUS INJURY.



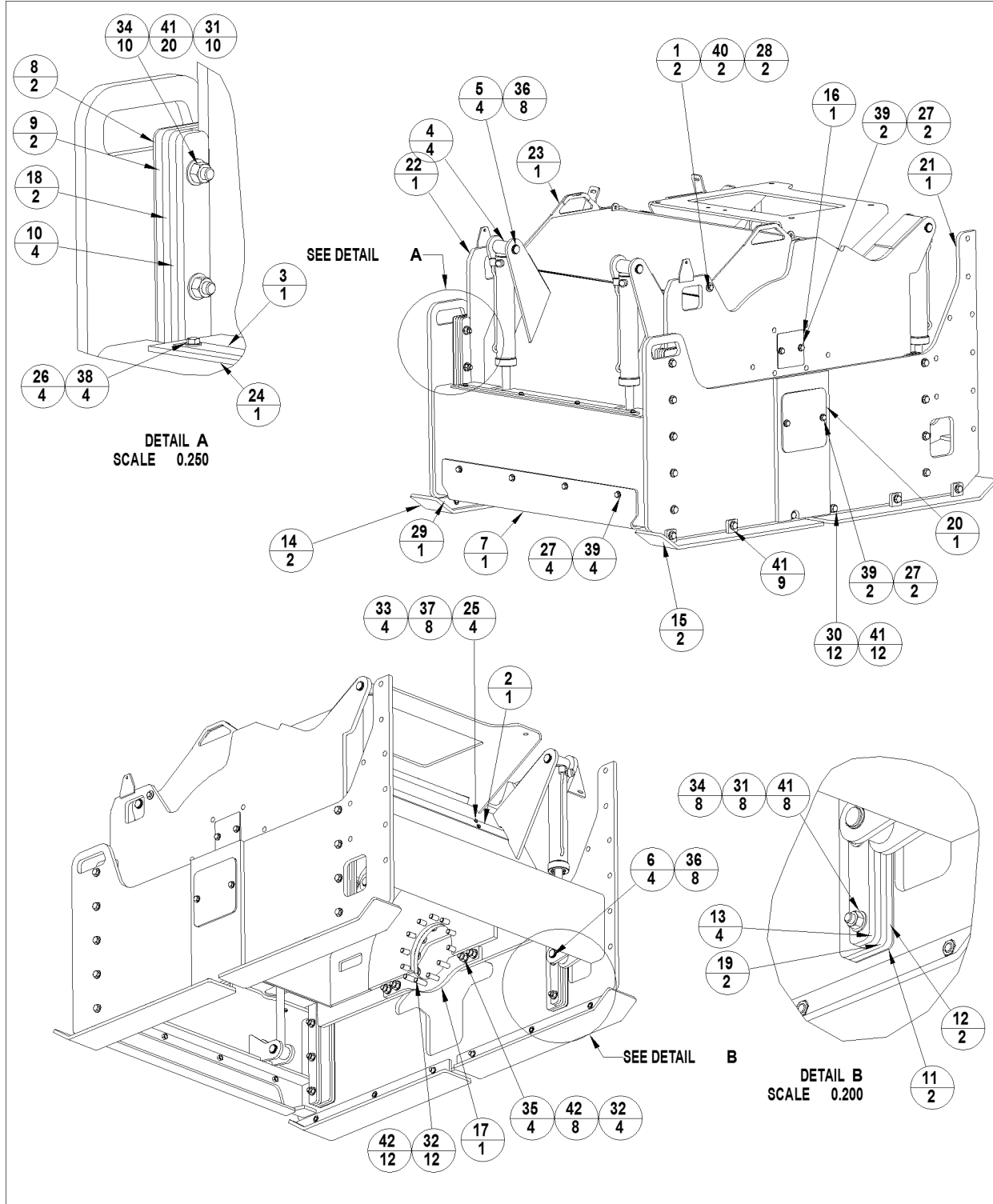
WARNING

COMPONENTS ARE EXTREMELY HEAVY AND CAN CAUSE SERIOUS INJURY OR DEATH IF PROPER LIFTING TECHNIQUES ARE NOT USED.

Planetary Gearbox and Drive **Hub Removal**

1. Remove the drum from the drum chassis. (see page 16)
2. Remove (4) dead shaft nuts from the left side of the drum and remove the dead shaft weldment.
3. Remove (8) planetary stud nuts from the right side of the drum.
4. Remove Planetary assembly from left side of drum.
5. Reverse steps for reassembly.

CHASSIS GROUP RH40140 ONLY



CHASSIS GROUP RH40140 ONLY

ITEM	QTY.	PART NO.	DESCRIPTION
1	2	106-0621	BUSHING, SHROUD BOLT
2	1	106-1190	PLATE, WATER KIT COVER
3	1	106-1202	PLATE, BELTING RETAINER
4	4	106-1668	CYLINDER ASSEMBLY
5	4	106-1879	PIN, DEPTH CYLINDER
6	4	106-1880	PIN, DEPTH CYLINDER
7	1	106-1883	PLATE, CHASSIS GUARD
8	2	106-1993	PLATE, CHASSIS SHIM FRONT
9	2	106-1994	PLATE, CHASSIS SHIM FRONT
10	4	106-1995	PLATE, CHASSIS SHIM FRONT
11	2	106-1996	PLATE, CHASSIS SHIM REAR
12	2	106-1997	PLATE, CHASSIS SHIM REAR
13	4	106-1998	PLATE, CHASSIS SHIM REAR
14	2	106-1999	WELDMENT, WEAR SKID
15	2	106-2000	WELDMENT, WEAR SKID
16	1	106-2235	COVER, BEARING ACCESS
17	1	106-2236	PLATE, PLANETARY SUPPORT
18	2	106-2243	PLATE, CHASSIS SHIM FRONT
19	2	106-2244	PLATE, CHASSIS SHIM REAR
20	1	106-2266	PLATE, DEAD SHAFT COVER
21	1	106-2280	WELDMENT, DEPTH SKID
22	1	106-2289	WELDMENT, CHASSIS
23	1	106-2307	WELDMENT, SHROUD
24	1	106-2316	BELTING, RUBBER
25	4	HB025L0100A	BOLT, 1/4-20 X 1.00 PLATED
26	4	HB038L0150A	BOLT, 3/8-16 X 1.50 PLATED
27	8	HB050L0100A	BOLT, 1/2-13 x 1.00 PLATED
28	2	HB050L0200A	BOLT, 1/2-13 x 2.00 PLATED
29	1	HB063L0175A	BOLT, 5/8-11 X 1.75 PLATED
30	12	HB063L0200A	BOLT, 5/8-11 X 2.00 PLATED
31	18	HB063L0400A	BOLT, 5/8-11 X 4.00 PLATED
32	16	HB075L0300A	BOLT, 3/4 UNC X 3
33	4	HN025A	NUT, 1/4-20 PLATED
34	18	HN063F	NUT, 5/8-11 PLATED NYLOCK
35	4	HN075A	NUT, 3/4-10 PLATED
36	16	HRRE125A	RETAINING RING-EXTERNAL 1.25" DIA.
37	8	HW025NA	WASHER, 1/4 NARROW PLATED
38	4	HW038NA	WASHER, 3/8 NARROW PLATED
39	8	HW050NA	WASHER, 1/2 NARROW PLATED
40	2	HW050WA	WASHER, 1/2 WIDE PLATED
41	49	HW063NA	WASHER, 5/8 NARROW PLATED
42	20	HW075NA	WASHER, 3/4 NARROW PLATED

Exploded view diagram of a mechanical assembly, showing various components and their assembly sequence. The diagram includes callouts for parts and details:

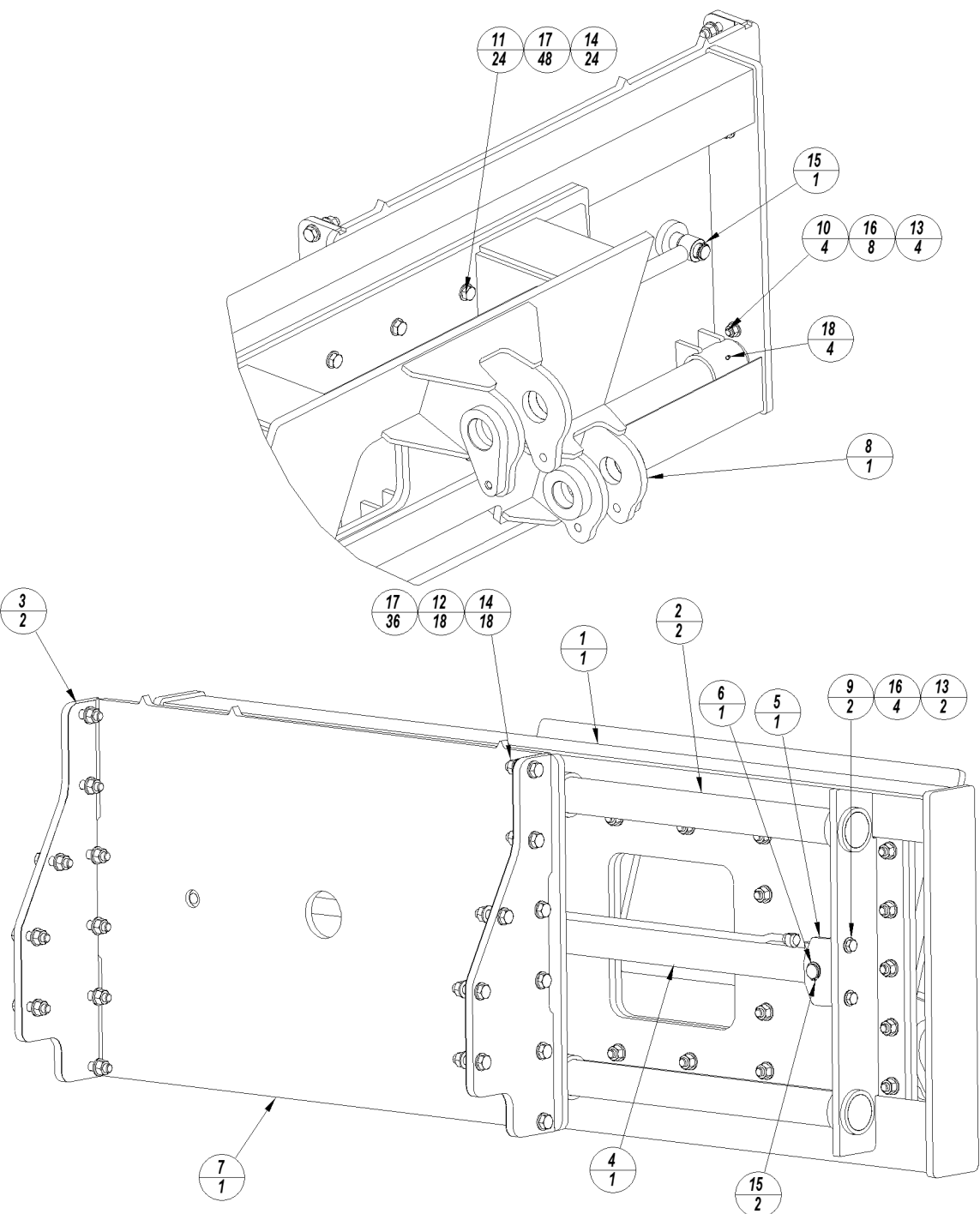
- DETAIL B** SCALE 0.200
- DETAIL C** SCALE 0.120
- DETAIL A** SCALE 0.250
- SEE DETAIL A**
- SEE DETAIL B**
- SEE DETAIL C**

The diagram shows a complex assembly with numerous parts, including a main frame, a base, and various internal components. The parts are numbered with callouts indicating their assembly sequence and quantity. The assembly is shown in an exploded view, allowing for a clear understanding of the relationship between the various components.

CHASSIS GROUP RH48140 AND RH60140

ITEM	QTY.	RH48140 PART	RH60140 PART	DESCRIPTION
1	2	106-0621	See RH48140	BUSHING, SHROUD BOLT
2	20	106-0831	See RH48140	PICK, ASPHALT (RP18)
3	2	106-1663	See RH48140	ROLLER, CAM
4	4	106-1668	See RH48140	CYLINDER ASSEMBLY
5	4	106-1879	See RH48140	PIN, DEPTH CYLINDER
6	4	106-1880	See RH48140	PIN, DEPTH CYLINDER
7	2	106-1993	See RH48140	PLATE, CHASSIS SHIM FRONT
8	2	106-1994	See RH48140	PLATE, CHASSIS SHIM FRONT
9	4	106-1995	See RH48140	PLATE, CHASSIS SHIM FRONT
10	2	106-1996	See RH48140	PLATE, CHASSIS SHIM REAR
11	2	106-1997	See RH48140	PLATE, CHASSIS SHIM REAR
12	4	106-1998	See RH48140	PLATE, CHASSIS SHIM REAR
13	2	106-1999	See RH48140	WELDMENT, WEAR SKID
14	2	106-2000	See RH48140	WELDMENT, WEAR SKID
15	2	106-2243	See RH48140	PLATE, CHASSIS SHIM FRONT
16	2	106-2244	See RH48140	PLATE, CHASSIS SHIM REAR
17	1	106-2279	106-2164	PLATE, WATER KIT COVER
18	1	106-2870	106-2282	WELDMENT, DEPTH SKID
19	1	106-2306	See RH48140	PLATE, PLANETARY SUPPORT
20	1	106-2871	106-2291	WELDMENT, CHASSIS
21	1	106-2349	106-2309	WELDMENT, SHROUD
22	1	106-2377	See 2163	PLATE, CHASSIS GUARD
23	1	106-2380	106-2320	BELTING, RUBBER
24	1	106-2391	See RH48140	CYLINDER, HOOD
25	2	106-2501	See RH48140	LATCH ASSEMBLY, HOOD
26	1	106-2564	See RH48140	WELDMENT, DEPTH GUIDE
27	1	106-2565	See RH48140	WELDMENT, DEPTH GUIDE
28	2	106-2566	See RH48140	RETAINER, DEPTH ROLLER
29	1	106-2567	See RH48140	WELDMENT, DEPTH GUIDE
30	1	106-2587	106-2588	WELDMENT, BREAKER BAR
31	4	106-2688	See RH48140	NUT, WING 5/16-18 PLATED
32	1	106-2690	See RH48140	PLATE, DEAD SHAFT COVER
33	1	106-2691	See RH48140	COVER, BEARING ACCESS
34	1	106-2793	See RH48140	PLATE, BELTING RETAINER
35	1	106-2796	See RH48140	PLATE, BELTING RETAINER
36	4	HB025L0100A	See RH48140	BOLT, 1/4-20 X 1.00 PLATED
37	12	HB031L0100A	See RH48140	BOLT, 5/16-18 X 1.00 PLATED
38	4	HB038L0100A	See RH48140	BOLT, 3/8-16 X 1.00 PLATED
39	4	HB050L0100A	See RH48140	BOLT, 1/2-13 x 1.00 PLATED
40	2	HB050L0175A	See RH48140	BOLT, 1/2-13 x 1.75 PLATED
41	22	HB063L0200A	See RH48140	BOLT, 5/8-11 X 2.00 PLATED
42	24	HB063L0275A	See RH48140	BOLT, 5/8-11 X 2.75 PLATED
43	19	HB063L0400A	See RH48140	BOLT, 5/8-11 X 4.00 PLATED
44	16	HB075L0300A	See RH48140	BOLT, 3/4-10 x 3.00 PLATED
45	4	HN025A	See RH48140	NUT, 1/4-20 PLATED
46	12	HN031A	See RH48140	NUT, 5/16-18 PLATED
47	40	HN063A	See RH48140	NUT, 5/8-11 PLATED
48	19	HN063F	See RH48140	NUT, 5/8-11 PLATED NYLOCK
49	4	HN075A	See RH48140	NUT, 3/4-10 PLATED
50	2	HN113A	See RH48140	NUT, 1 1/8-7 PLATED
51	1	HRRE063A	See RH48140	RETAINING RING-EXTERNAL 0.63" DIA.
52	16	HRRE125A	See RH48140	RETAINING RING-EXTERNAL 1.25" DIA.
53	8	HW025NA	See RH48140	WASHER, 1/4 NARROW PLATED
54	24	HW031NA	See RH48140	WASHER, 5/16 NARROW PLATED
55	4	HW038NA	See RH48140	WASHER, 3/8 NARROW PLATED
56	4	HW050NA	See RH48140	WASHER, 1/2 NARROW PLATED
57	2	HW050WA	See RH48140	WASHER, 1/2 WIDE PLATED
58	124	HW063NA	See RH48140	WASHER, 5/8 NARROW PLATED
59	20	HW075NA	See RH48140	WASHER, 3/4 NARROW PLATED
60	2	HW112NA	See RH48140	WASHER, 1 1/8 NARROW PLATED

ATTACH GROUP RH40140 AND RH48140 (WITHOUT TILT)



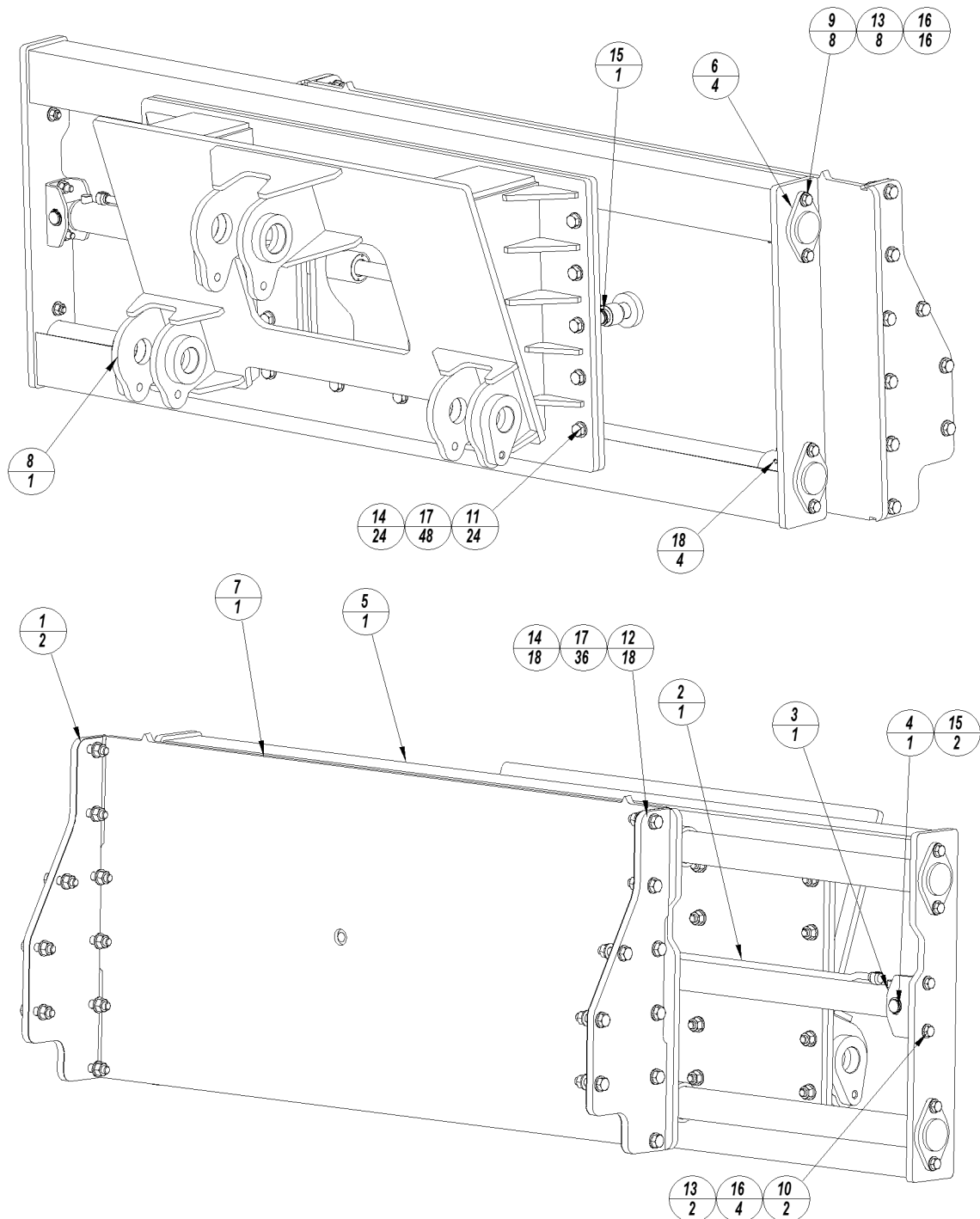
ATTACH GROUP RH40140 AND RH48140 (WITHOUT TILT)

ITEM	QTY.	RH40140 PART NO.	RH48140 PART NO.	DESCRIPTION
1	1	106-1457	see RH40140	WELDMENT, ATTACH
2	2	106-1468	see RH40140	WELDMENT, SIDE SHIFT BAR
3	2	106-2006	see RH40140	SHIM, SIDE SHIFT (NOTE A)
4	1	106-2112	see RH40140	CYLINDER ASSEMBLY, SIDE SHIFT
5	1	106-2168	see RH40140	PLATE, CYLINDER BRACKET
6	1	106-2183	see RH40140	PIN, SIDE SHIFT CYLINDER
7	1	106-2237	106-2324	WELDMENT, SIDE SHIFT
8	1	NOTE B	see RH40140	ATTACH WELDMENT
9	2	HB063L0200A	see RH40140	BOLT, 5/8-11 X 2.00 PLATED
10	4	HB063L0225A	see RH40140	BOLT, 5/8-11 X 2.25 PLATED
11	24	HB075L0275A	see RH40140	BOLT, 3/4-10 x 2.75 PLATED
12	18	HB075L0300A	see RH40140	BOLT, 3/4 UNC X 3
13	6	HN063A	see RH40140	NUT, 5/8-11 PLATED
14	42	HN075A	see RH40140	NUT, 3/4-10 PLATED
15	3	HRRE125A	see RH40140	RETAINING RING-EXTERNAL 1.25" DIA.
16	12	HW063NA	see RH40140	WASHER, 5/8 NARROW PLATED
17	84	HW075NA	see RH40140	WASHER, 3/4 NARROW PLATED
18	4	HZ001	see RH40140	ZERK, 1/4-28 STRAIGHT

NOTE A : QUANTITY VARIES TO SHIM GAPS

NOTE B: WELDMENT VARIES WITH LOADER-CONSULT FACTORY

ATTACH GROUP RH60140 (WITHOUT TILT)



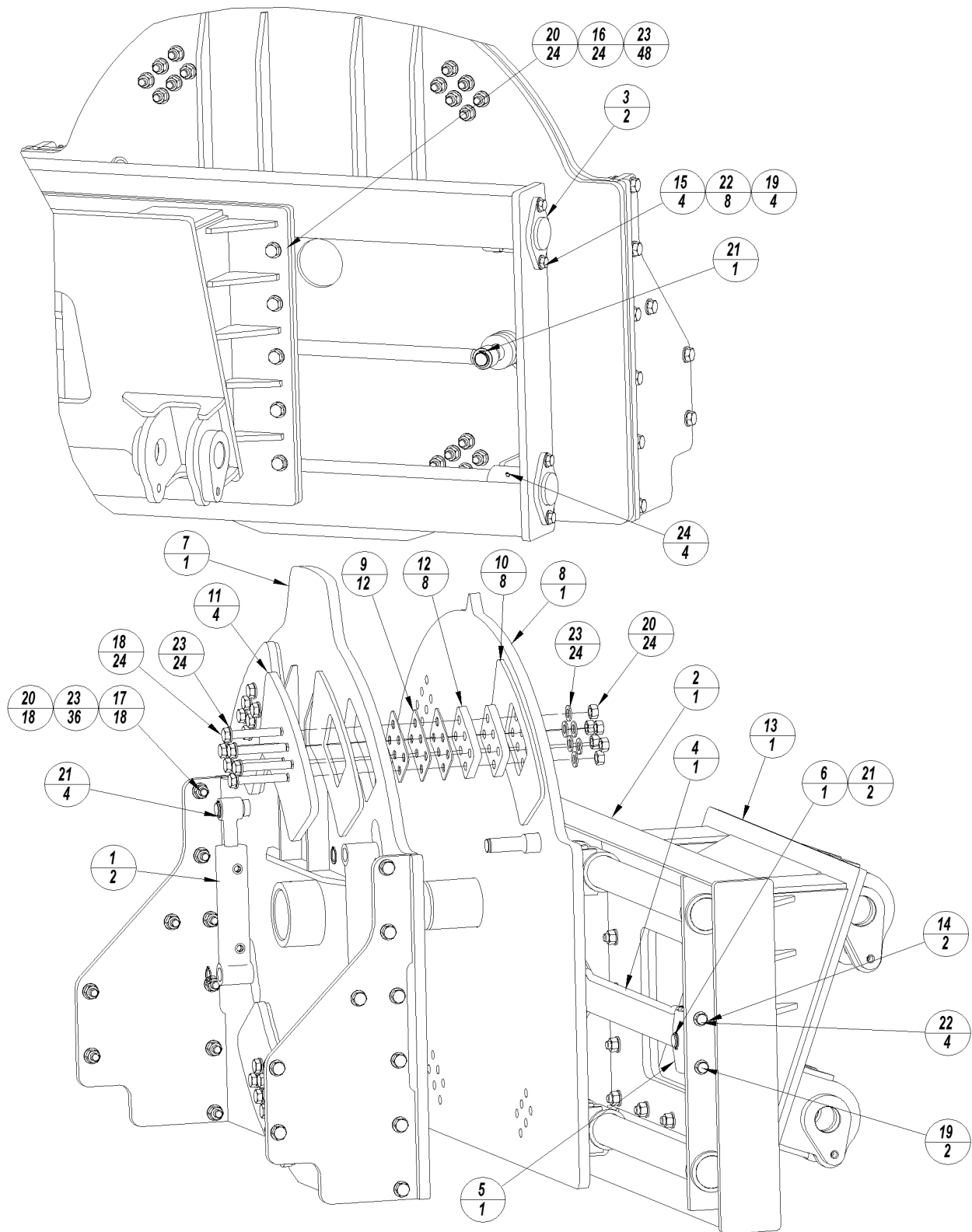
ATTACH GROUP RH60140 (WITHOUT TILT)

RH60140			
ITEM	QTY.	PART NO.	DESCRIPTION
1	2	106-2006	SHIM, SIDE SHIFT (NOTE A)
2	1	106-2112	CYLINDER ASSEMBLY, SIDE SHIFT
3	1	106-2168	PLATE, CYLINDER BRACKET
4	1	106-2183	PIN, SIDE SHIFT CYLINDER
5	1	106-2187	WELDMENT, ATTACH
6	4	106-2190	WELDMENT, SIDE SHIFT BAR
7	1	106-2471	WELDMENT, SIDE SHIFT
8	1	NOTE B	ATTACH WELDMENT-RH
9	8	HB063L0225A	BOLT, 5/8-11 X 2.25 PLATED
10	2	HB063L0250A	BOLT, 5/8-11 X 2.50 PLATED
11	24	HB075L0275A	BOLT, 3/4-10 x 2.75 PLATED
12	18	HB075L0300A	BOLT, 3/4 UNC X 3
13	10	HN063A	NUT, 5/8-11 PLATED
14	42	HN075A	NUT, 3/4-10 PLATED
15	3	HRRE125A	RETAINING RING-EXTERNAL 1.25" DIA.
16	20	HW063NA	WASHER, 5/8 NARROW PLATED
17	84	HW075NA	WASHER, 3/4 NARROW PLATED
18	4	HZ001	ZERK, 1/4-28 STRAIGHT

NOTE A : QUANTITY VARIES TO SHIM GAPS

NOTE B: WELDMENT VARIES WITH LOADER-CONSULT FACTORY

ATTACH GROUP RH40140 AND RH48140 WITH TILT



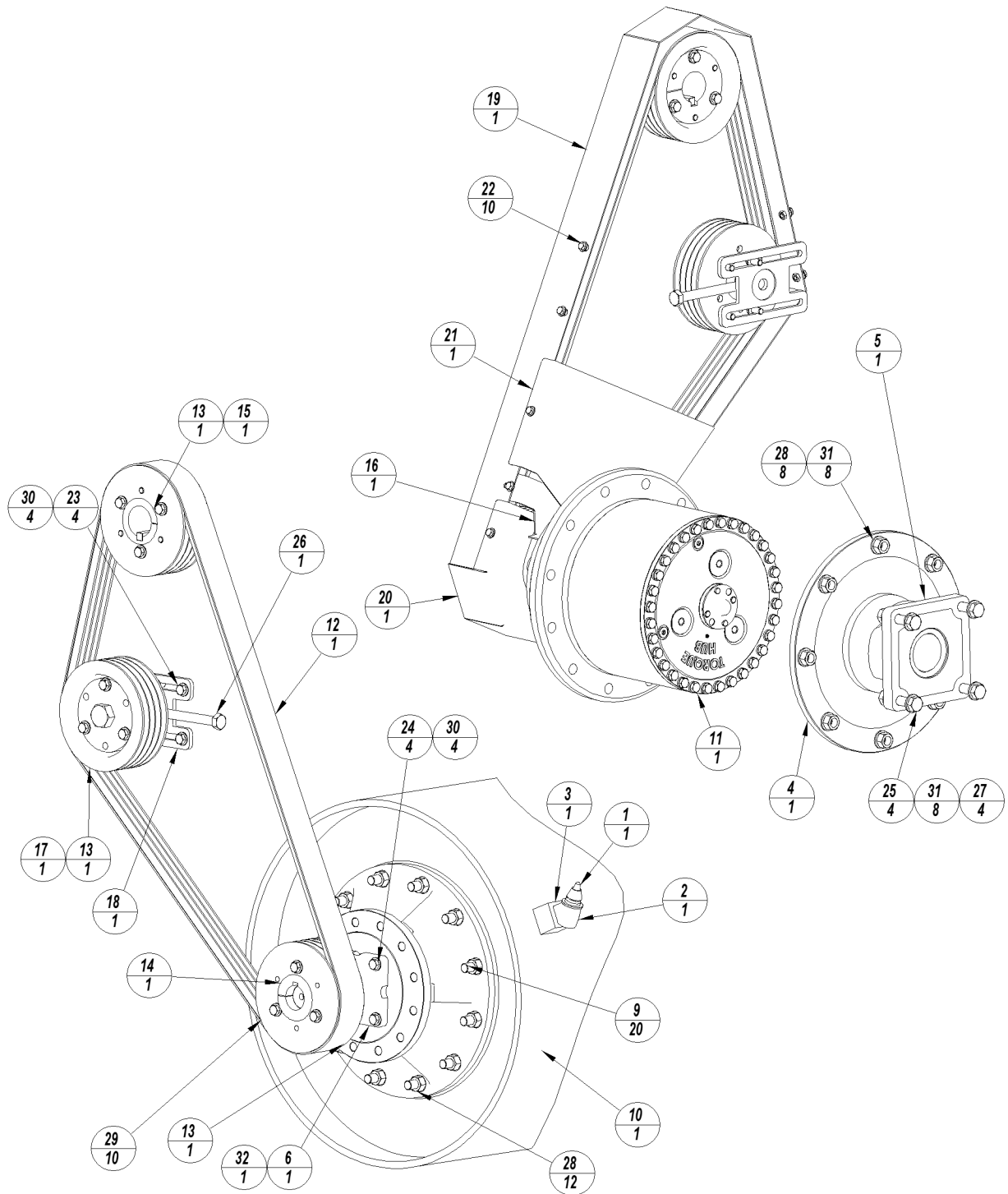
ATTACH GROUP RH40140 AND RH48140 WITH TILT

ITEM	QTY.	RH40140 PART NO.	RH48140 PART NO.	DESCRIPTION
1	2	106-0617	see RH140	CYLINDER ASSY, TILT
2	1	106-1457	see RH140	WELDMENT, ATTACH
3	2	106-1468	see RH140	WELDMENT, SIDE SHIFT BAR
4	1	106-2112	see RH140	CYLINDER ASSEMBLY, SIDE SHIFT
5	1	106-2168	see RH140	PLATE, CYLINDER BRACKET
6	1	106-2183	see RH140	PIN, SIDE SHIFT CYLINDER
7	1	106-2467	106-2869	WELDMENT, TILT
8	1	106-2469	106-2457	WELDMENT, SIDE SHIFT
9	12	106-2463	see RH140	PLATE, TILT SPACER
10	8	106-2464	see RH140	PLATE, TILT SLIDER
11	4	106-2465	see RH140	PLATE, TILT RETAINER
12	8	106-2466	see RH140	PLATE, TILT SPACER
13	1	106-2479	see RH140	ATTACH WELDMENT-RH
14	2	HB063L0200A	see RH140	BOLT, 5/8-11 X 2.00 PLATED
15	4	HB063L0225A	see RH140	BOLT, 5/8-11 X 2.25 PLATED
16	24	HB075L0275A	see RH140	BOLT, 3/4-10 x 2.75 PLATED
17	18	HB075L0300A	see RH140	BOLT, 3/4-10 x 3.00 PLATED
18	24	HB075L0500A	see RH140	BOLT, 3/4-10 x 5.00 PLATED
19	6	HN063A	see RH140	NUT, 5/8-11 PLATED
20	66	HN075A	see RH140	NUT, 3/4-10 PLATED
21	7	HRRE125A	see RH140	RETAINING RING-EXTERNAL 1.25" DIA.
22	12	HW063NA	see RH140	WASHER, 5/8 NARROW PLATED
23	132	HW075NA	see RH140	WASHER, 3/4 NARROW PLATED
24	4	HZ001	see RH140	ZERK, 1/4-28 STRAIGHT

NOTE A : QUANTITY VARIES TO SHIM GAPS

NOTE B: WELDMENT VARIES WITH LOADER-CONSULT FACTORY

DRIVETRAIN AND DRUM GROUP RH40140, RH48140, RH60140



DRIVETRAIN AND DRUM GROUP RH40140, RH48140, RH60140

ITEM	QTY.	RH40140 PART NO.	RH48140 PART NO.	RH60140 PART NO.	DESCRIPTION
1	1	106-3130	see RH40-140	see RH40-140	PICK, ASPHALT (RP18) (NOTE A)
2	1	106-3140	see RH40-140	see RH40-140	HOLDER, PICK (NOTE A)
3	1	106-1618	see RH40-140	see RH40-140	BLOCK, HOLDER (NOTE B)
4	1	106-1862	see RH40-140	see RH40-140	WELDMENT, MACHINED DEAD SHAFT
5	1	106-1864	see RH40-140	see RH40-140	BEARING ASSEMBLY, DEAD SHAFT
6	1	106-2097	see RH40-140	see RH40-140	INPUT ADAPTER
7	1	106-2169	see RH40-140	see RH40-140	KEY, INPUT ADAPTER
8	1	106-2170	see RH40-140	see RH40-140	KEY, CLUTCH SHAFT
9	20	106-2180	see RH40-140	see RH40-140	STUD, 3/4-16 X 3/75 FAIRFIELD
10	1	106-2326	106-2327	106-2328	ASSEMBLY, DRUM WITH PICKS, STUDS AND HOLDERS
11	1	106-2224	see RH40-140	see RH40-140	PLANETARY, FAIRFIELD W12C
12	1	106-2229	see RH40-140	see RH40-140	BELT, 4 GROOVE V
13	3	106-2230	see RH40-140	see RH40-140	SHEAVE, 4 GROOVE 9.00" DIA.
14	1	106-2231	see RH40-140	see RH40-140	BUSHING, QD-E 2.000" DIA. BORE
15	1	106-2232	see RH40-140	see RH40-140	BUSHING, QD-E 2.500" DIA. BORE
16	1	106-2239	see RH40-140	see RH40-140	PLATE, BELT SHROUD MOUNT
17	1	106-2240	see RH40-140	see RH40-140	BUSHING, QD-E SEALED IDLER WITH BEARING
18	1	106-2241	see RH40-140	see RH40-140	WELDMENT, IDLER ARM
19	1	106-2246	see RH40-140	see RH40-140	WELDMENT, BELT SHROUD
20	1	106-2249	see RH40-140	see RH40-140	PLATE, BELT SHROUD
21	1	106-2250	see RH40-140	see RH40-140	PLATE, BELT SHROUD
22	10	HB038L0075A	see RH40-140	see RH40-140	BOLT, 3/8-16 X 0.75 PLATED
23	4	HB050L0100A	see RH40-140	see RH40-140	BOLT, 1/2-13 x 1.00 PLATED
24	4	HB050L0150A	see RH40-140	see RH40-140	BOLT, 1/2-13 x 1.50 PLATED
25	4	HB075L0375A	see RH40-140	see RH40-140	BOLT, 1/2 UNC X 2
26	1	106-2361	see RH40-140	see RH40-140	BOLT, 3/4 -10 x 8 FULLY THREADED
27	4	HN075A	see RH40-140	see RH40-140	NUT, 3/4-10 PLATED
28	20	HN075B	see RH40-140	see RH40-140	NUT, 3/4-16 PLATED
29	10	HW038NA	see RH40-140	see RH40-140	WASHER, 3/8 NARROW PLATED
30	8	HW050NA	see RH40-140	see RH40-140	WASHER, 1/2 NARROW PLATED
31	16	HW075NA	see RH40-140	see RH40-140	WASHER, 3/4 NARROW PLATED
32	1	OR2-159A	see RH40-140	see RH40-140	O-RING, 2-159 90 DUROMETER
33	1	NOTE C	NOTE C	NOTE C	SEAL, LIP FOR ITEM #6 (INPUT ADAPTOR)

NOTE A : QUANTITY VARIES: RH40140 QTY 82

RH48140 QTY 95

RH60140 QTY 114

NOTE B: QUANTITY VARIES: RH40140 QTY 76

RH48140 QTY 88

RH60140 QTY 108

NOTE C: FAIRFIELD PART # SO-0210

KETCHIE HOUSTON PART # SO-0214

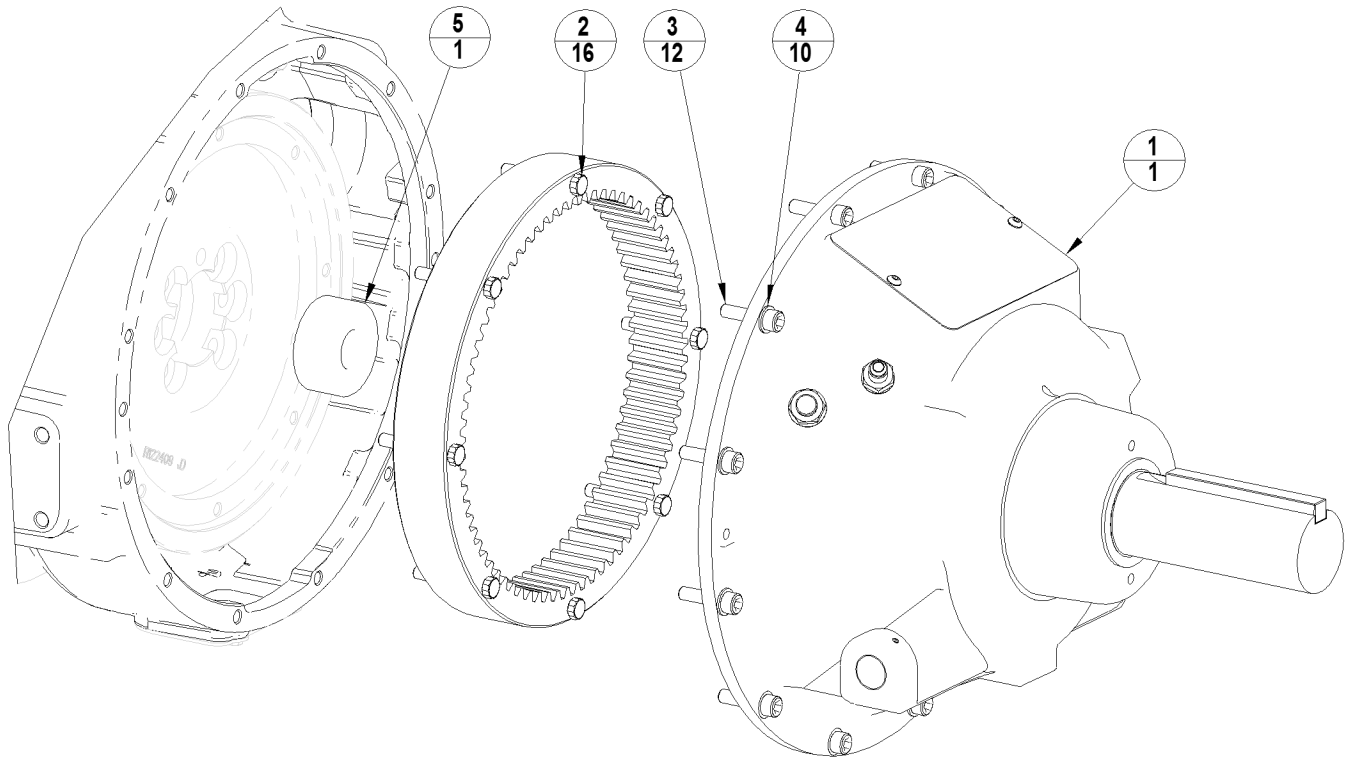
**Engine Group
RH40140 with John Deere engine**

**Refer to
John Deere Operator's Manual
PowerTech E™ 4045HF285 and 6068HF285
Publication number OMRG37407
Published May 17, 2006**

**Engine Group
RH40140 with John Deere engine**

**Refer to
John Deere Operator's Manual
PowerTech E™ 4045HF285 and 6068HF285
Publication number OMRG37407
Published May 17, 2006**

Clutch Group



Clutch Group

ITEM	QTY.	RH40140	RH48140	RH60140	DESCRIPTION
1	1	106-1722	SEE RH40140	SEE RH40140	CLUTCH ASSY
2	16	HB038L0250A	SEE RH40140	SEE RH40140	BOLT, 3/8-16 X 2.50 PLATED
3	12	HSHBM10L35	SEE RH40140	SEE RH40140	SCREW, CAP M10X35
4	10	HW038NA	SEE RH40140	SEE RH40140	WASHER, 3/8 NARROW PLATED
5	1	SO-0229	SEE RH40140	SEE RH40140	BEARING, CLUTCH PILOT

HYDRAULIC GROUP

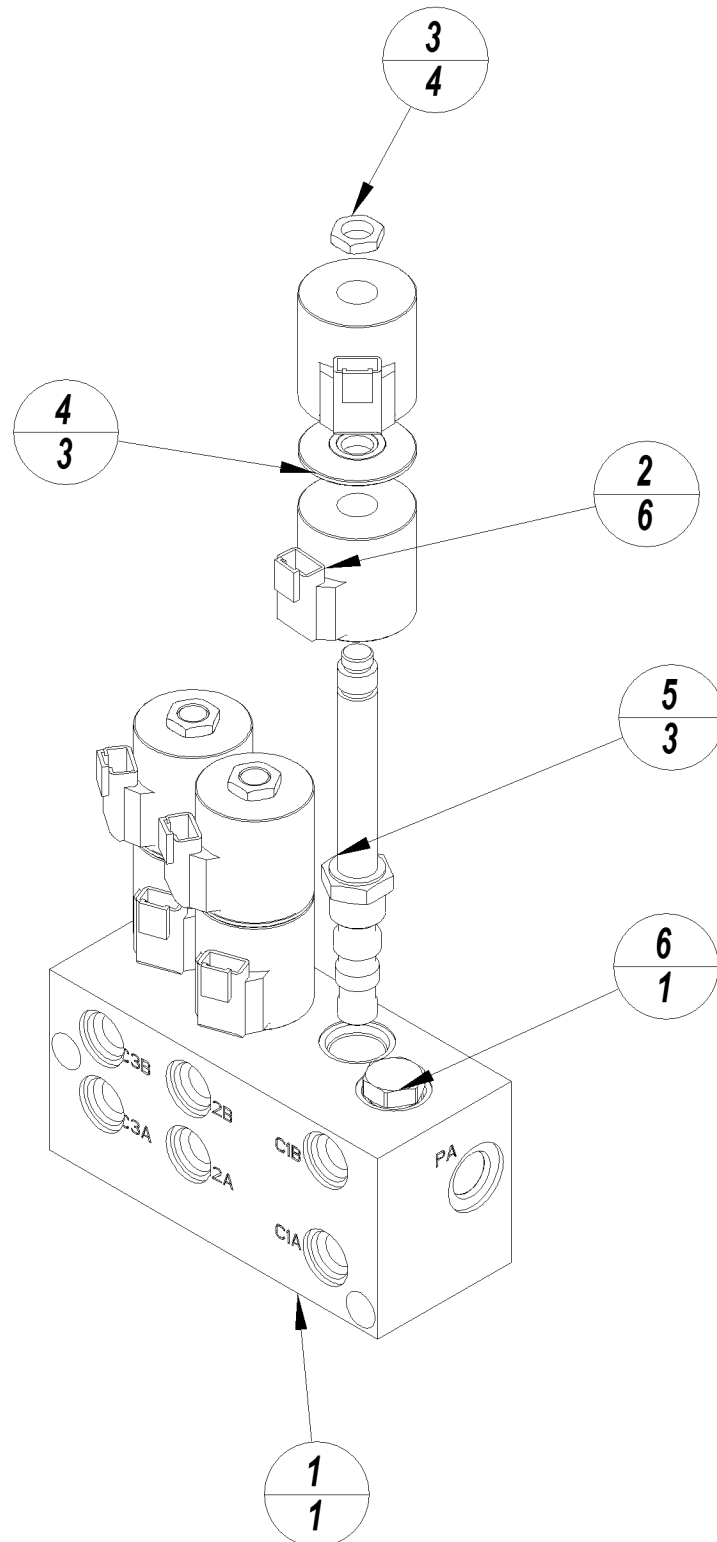
Consult factory for details

HYDRAULIC GROUP

Consult factory for details.

106-0659 ELECTROHYDRAULIC VALVE

Tilt, depth and side shift control



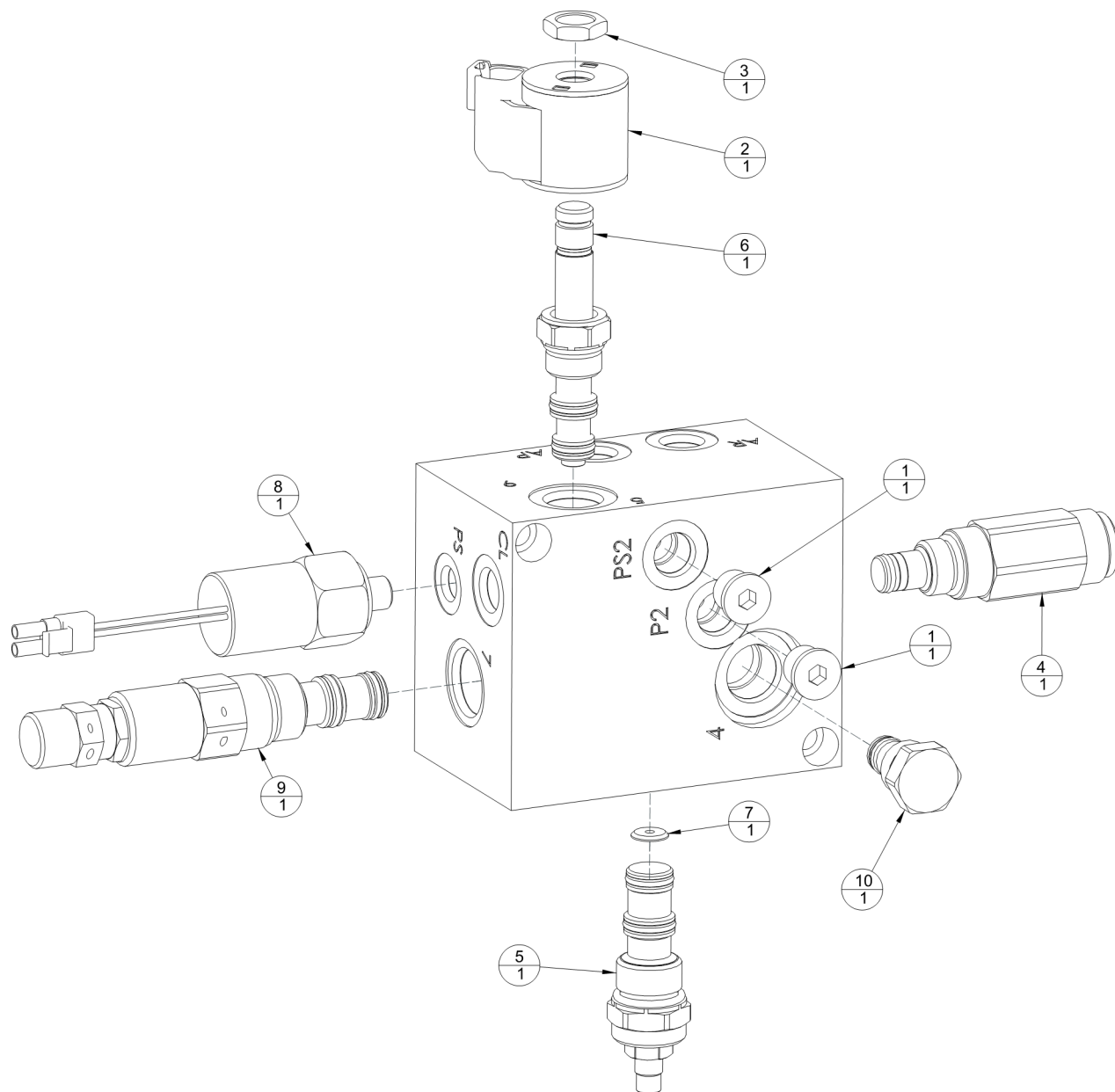
106-0659 ELECTROHYDRAULIC VALVE

Tilt, depth and side shift control

<i>All RoadHogs</i>			
<i>ITEM</i>	<i>QTY</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
1	1	106-0659	Manifold Block
2	6	S0-0021	COIL, SIZE -10
3	4	S0-0022	NUT, COIL SIZE -10
4	3	S0-0023	WASHER, COIL SIZE -10
5	3	S0-0024	CARTRIDGE VALVE, SV10-47A
6	1	SO-0088	CARTRIDGE VALVE, DC08

106-1620 ELECTROHYDRAULIC VALVE

Clutch engagement control

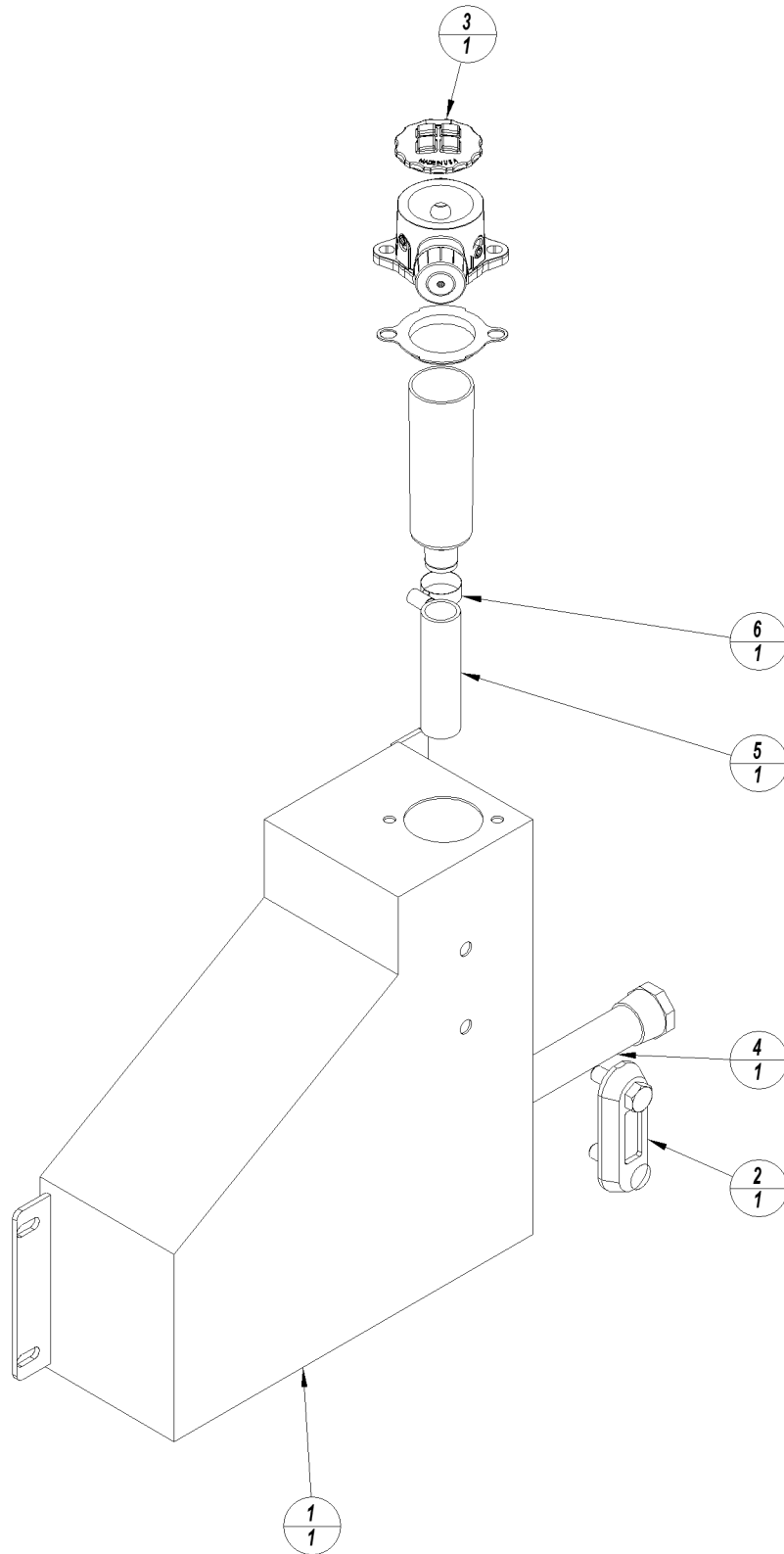


106-1620 ELECTROHYDRAULIC VALVE

Clutch engagement control

<i>All RoadHogs</i>			
<i>ITEM</i>	<i>QTY</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
1	2	HF6HP50N	PLUG, -6 SAE
2	1	SO-0017	COIL, 08 SIZE
3	1	SO-0022	NUT, COIL SIZE 8 & 10
4	1	SO-0148	CARTRIDGE VALVE, RELIEF RV08-20H (SEAL KIT:SO-0182)
5	1	SO-0149	CARTRIDGE VALVE, FLOW REGULATOR FR10-33A (SEAL KIT:SO-0325)
6	1	SO-0151	CARTRIDGE VALVE, SOLENOID ON/OFF SV08-30 (SEAL KIT:SO-0405)
7	1	SO-0204	DISC, ORIFICE
8	1	SO-0248	SWITCH, PRESSURE
9	1	SO-0303	CARTRIDGE VALVE, PRESSURE REDUCER PR10-36L (SEAL KIT:SO-0325)
10	1	SO-0404	CARTRIDGE VALVE, CHECK CV08-20 (SEAL KIT:SO-0406)

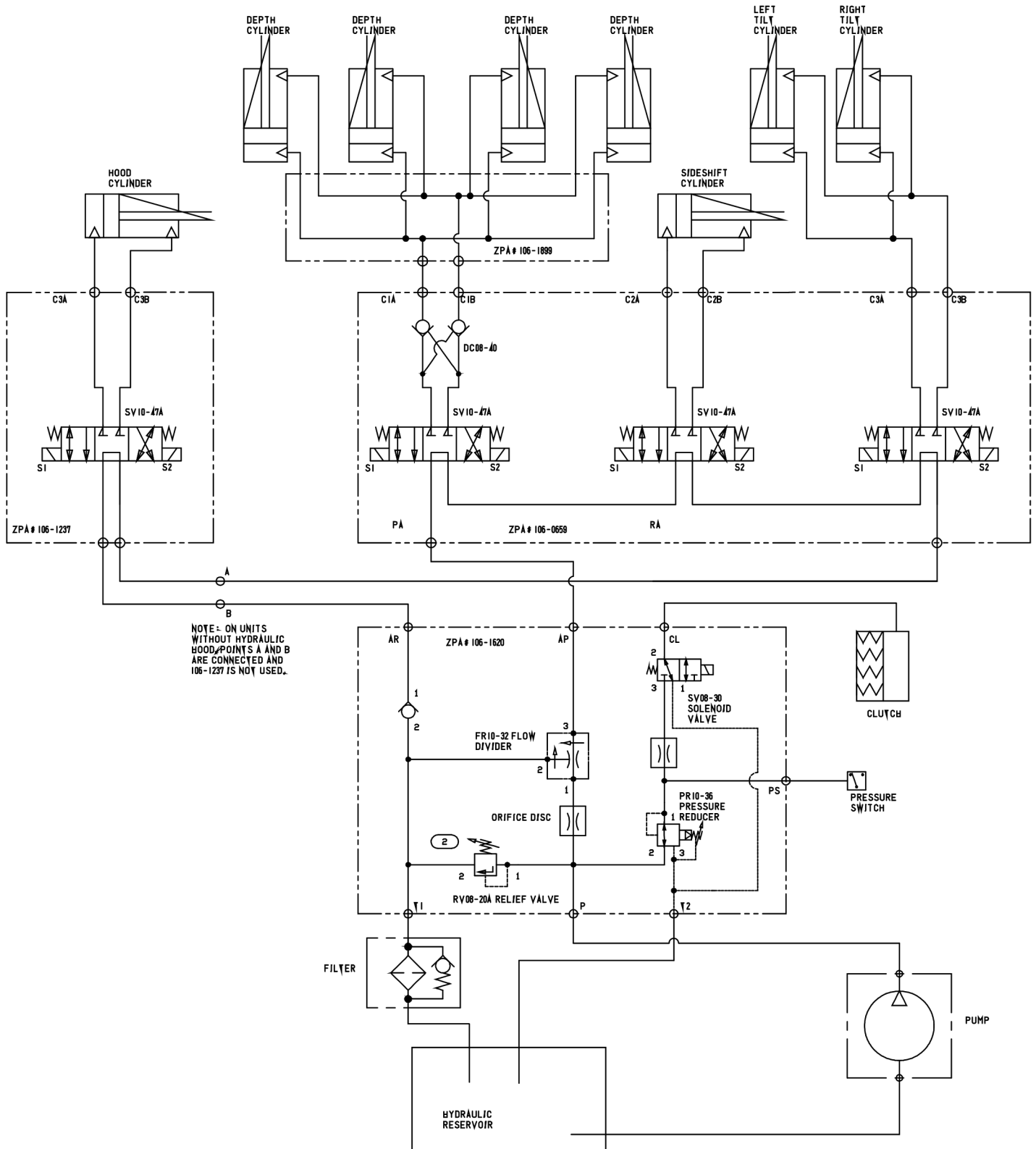
106-3283 Hydraulic Tank Assembly



106-3283 Hydraulic Tank Assembly

<i>All RoadHogs</i>			
<i>ITEM</i>	<i>QTY</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
1	1	106-3283	TANK, 5 GAL
2	1	SO-0267	SITE GLASS
3	1	SO-0268	BREATHER HOUSING
4	1	SO-0269	STRAINER
5	1	SO-0270	SUCTION HOSE
6	1	SO-0271	HOSE CLAMP
7	1	SO-0265	FILTER, 10 MICRON (NOT SHOWN)

HYDRAULIC SCHEMATIC with 140hp John Deere engine

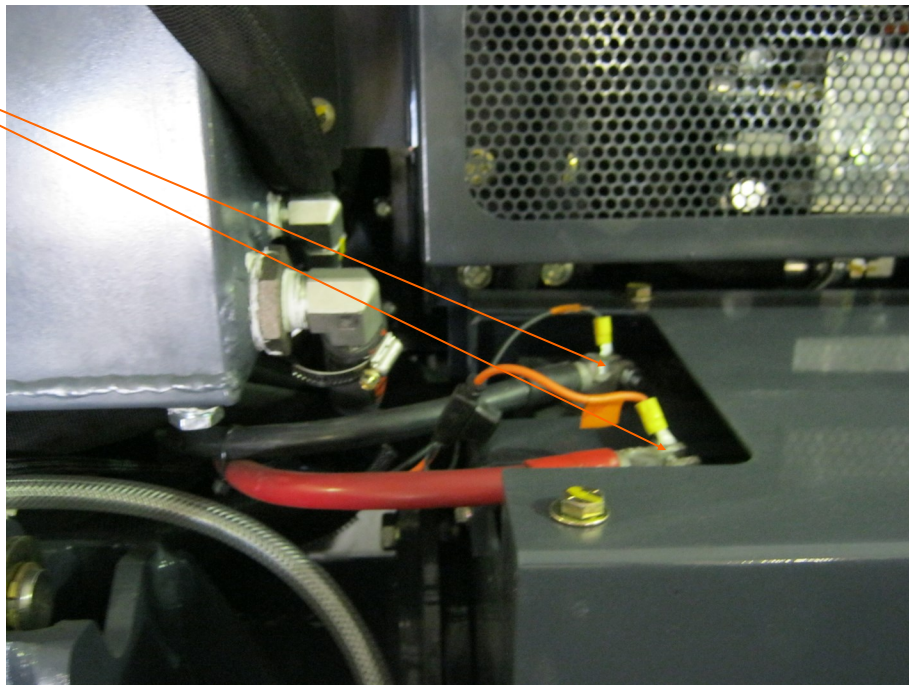


Electrical points on Roadhog

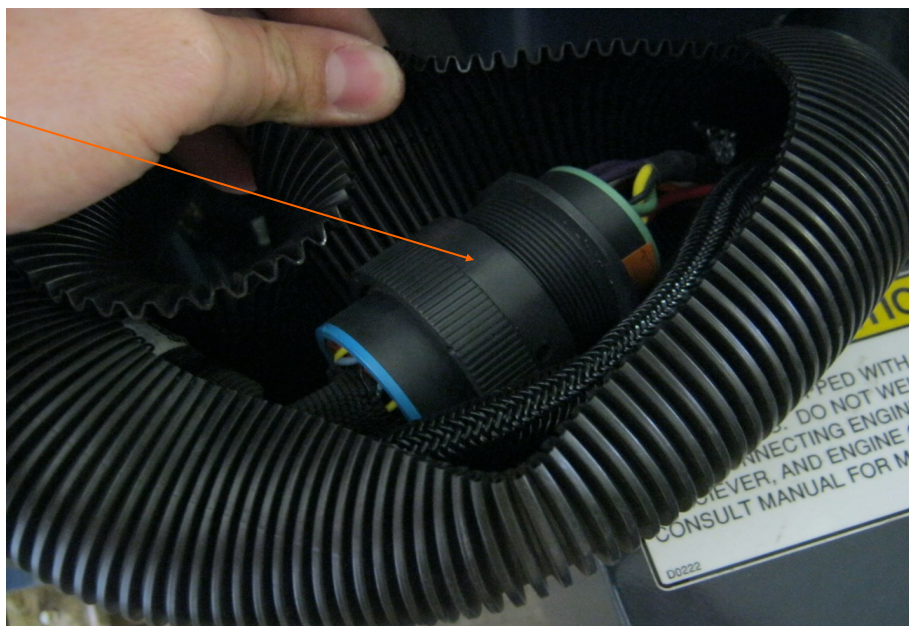
Disconnect these connections prior to any welding.

Call 317-858-7050 with any questions.

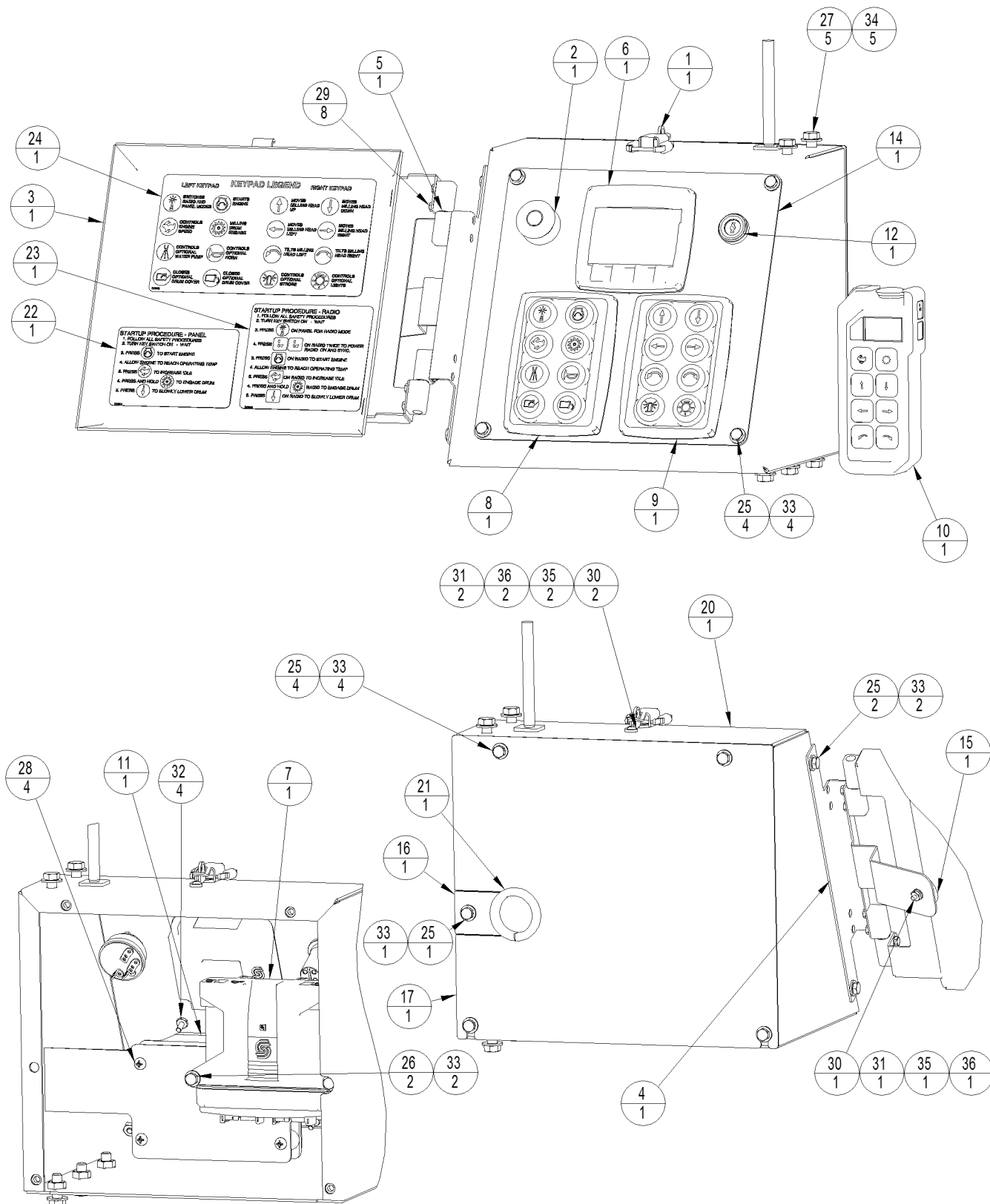
Disconnect the battery cables from the battery



Disconnect ZPA's harness from JD engine harness
(located behind the control panel)



ELECTRICAL GROUP



ELECTRICAL GROUP MASTER PANEL

<i>ITEM</i>	<i>QTY.</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
1	1	106-1896	LATCH, SOUTHCO 91-772-07
2	1	106-2098	SWITCH, SHUTOFF
3	1	106-2799	WELDMENT, CONTROL PANEL COVER
4	1	106-2802	PLATE, HINGE MOUNT
5	1	106-2803	HINGE, SOUTHCO 96-10-500-50
6	1	106-2900	DISPLAY, ENGINE
7	1	106-2901	MODULE, EXPANSION
8	1	106-2902	KEYPAD, LEFT
9	1	106-2903	KEYPAD, RIGHT
10	1	106-2905	TRANSMITTER, ERGO F (KEY—SO-0284)
11	1	106-2906	RECEIVER, RADIO CAN
12	1	106-2908	SWITCH, IGNITION
13	1	106-2909	HARNESS ASSY, RH200 & RH140
14	1	106-2914	PLATE, CONTROL PANEL
15	1	106-3024	MAGNET, ROUND
16	1	106-3051	PLATE, GROMMET SUPPORT
17	1	106-3052	PLATE, CONTROL PANEL COVER
18	1	106-3053	CABLE, ANTENNA EXTENSION
19	1	106-3054	FITTING, ANTENNA BULKHEAD
20	1	106-3055	WELDMENT, CONTROL PANEL BOX
21	1	106-3327	GROMMET
22	1	D0244	DECAL, OPERATION
23	1	D0245	DECAL, OPERATION
24	1	D0246	DECAL, KEYPAD LEGEND
25	11	HB025L0050A	BOLT, 1/4-20 X 0.50 PLATED
26	2	HB025L0250A	BOLT, 1/2 UNC X 2
27	5	HB038L0100A	BOLT, 3/8-16 X 1.00 PLATED
28	4	HMM5M6X10A	SCREW, PHILIPS MACHINE M6X8
29	8	HMSHWN10L025A	SCREW, MACH. 10-32 X 0.25 HEX WASHER HEAD
30	3	HMSN08L050A	SCREW, MACHINE
31	3	HMSNN08A	NUT, NO. 8 MACHINE SCREW
32	4	HNMS10-32F	NUT, NO. 10-32 NYLOCK
33	13	HW025NA	WASHER, 1/4 NARROW PLATED
34	5	HW038NA	WASHER, 3/8 NARROW PLATED
35	3	HWN08A	WASHER NO. 8 NARROW PLATED
36	3	HWN08LW	LOCK WASHER, NO. 8 PLATED

see page 55

**Electrical Schematic
with 140hp John Deere engine
(Continued on page 54&55)**

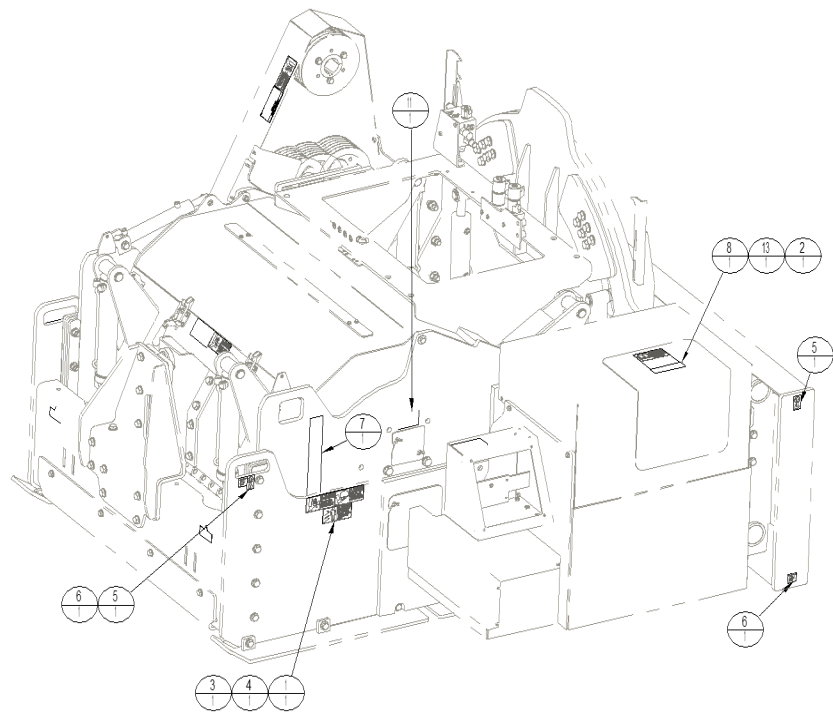
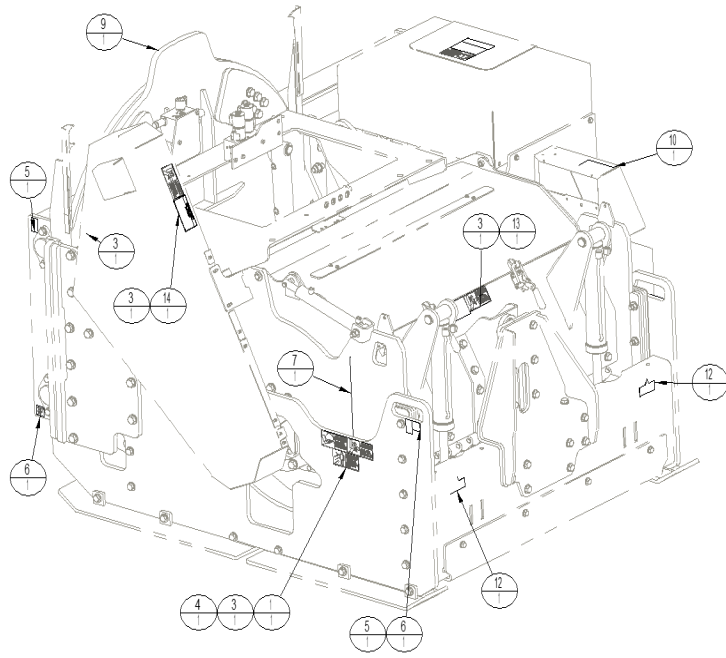
Electrical Schematic with 140hp John Deere engine

see page 56

see page 54

Electrical Schematic with 140hp John Deere engine

DECAL GROUP



DECAL GROUP

<i>ITE</i>			
<i>M</i>	<i>QTY</i>	<i>PART NO.</i>	<i>DESCRIPTION</i>
1	2	D0163	DECAL, FLYING OBJECTS
2	1	D0164	DECAL, READ MANUAL
3	5	D0165	DECAL, CRUSHING HAZARD
4	2	D0166	DECAL, ROTATING CUTTER
5	4	D0168	DECAL, LIFT POINT
6	4	D0169	DECAL, TIE DOWN
7	2	D0201	DECAL, CHECK FLUID AT LEVEL
8	1	D0208	DECAL, CHECK FLUID AT LEVEL
9	1	D0218	DECAL, TILT ANGLE
10	1	D0222	DECAL, CHECK FLUID AT LEVEL
11	1	D0223	DECAL, CHECK FLUID AT LEVEL
12	2	D0230	DECAL, EDGE OF CUT
13	2	D0247	DECAL, TOOTH MAINTENANCE
14	1	D0248	DECAL, BELT TENSION

SPECIFICATIONS

RH40140

RH48140

RH60140

Cutting Width (in)	40	48	60
Cutting Depth (in)	0 to 12	0 to 12	0 to 12
Number of Teeth	82	95	114
Engine horsepower	140	140	140
Fuel capacity	25	25	25
Hydraulic capacity	5	5	5
Side shift Travel (in)	30	30	30
Approximate Weight (lb.)	10,140	10,650	11,250

RoadHog, Inc.

464 Southpoint Circle Brownsburg, IN 46112 Phone 317-858-7050 Fax 317-858-7053

www.roadhog-inc.com email: warranty@roadhog-inc.com

Statement of Warranty

RoadHog, Inc. warrants its products, when used correctly under normal operating conditions, will be free from defects in materials and workmanship. RoadHog makes no other warranty, expressed or implied. This warranty shall be for a period of **12 months for parts and labor** from the date the product is placed into service, providing RoadHog is supplied with the in service date. The warranty shall not apply to any products that have been altered, changed, or repaired in any manner whatsoever, except by an authorized RoadHog repair facility: nor to any product that has been subject to misuse, negligence or accident. The exclusive and sole remedy for breach of contract shall be limited to repair, modification or replacement at the sole discretion of RoadHog. RoadHog shall not in any event be liable for the cost of any special, direct or indirect consequential damages to anyone. RoadHog reserves the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes on any previously delivered units.

ANY OVERNIGHT FREIGHT CHARGES WILL BE PAID BY THE DEALER, RoadHog will pay ground freight.

Warranty will not be allowed for failure due to the following: normal wear and tear, abuse or accident, excessive flow or pressure, modification of original equipment, improper service or maintenance.

RoadHog does not warrant drive belts or ground engaging parts (drums, teeth, holders or bases) against wear, unless the wear is determined by RoadHog to have been caused by an engineering or manufacturing defect.

Parts return policy

New and unused parts may be returned up to 12 months after purchase without a restock fee.

Returns within 13 to 18 months after purchase are subject to a 15% restock fee.

An RGA must be obtained from RoadHog before returning any stock.

Parts will be returned prepaid and shall have a packing list and all parts clearly marked, in good condition.

Claim Administration Procedures

1. RoadHog should be contacted immediately regarding a warranty repair.
2. Always have the serial number of the unit available to give to the RoadHog representative.
3. If parts are needed, an RGA will be given at this time.
4. A purchase order number may be requested by RoadHog for any part that is categorized as non-warranty and will be billed at normal dealer net prices.

NOTE: Major components (i.e. engines, gearboxes, pumps, motors and valves) are not to be disassembled when performing possible warranty work without prior authorization of RoadHog personnel.

Unauthorized disassembly of these major components will void any warranty.

5. In the event RoadHog requests that parts be returned for warranty inspection, an RGA must be obtained and the defective parts returned with the RGA number clearly marked on the boxes.
6. Return these parts prepaid via UPS ground to RoadHog for examination.
7. Labor will be credited at 75% of published dealer shop labor rate, unless otherwise negotiated in advance with RoadHog.
8. Mileage will be reimbursed at \$ 1.00 per mile. Travel time is not reimbursed.
9. All claims must be submitted as soon as possible on a RoadHog claim form, with the internal dealer work order attached.
10. Credit will be issued when warranty has been approved. All credits will be issued in credit memo form.
No cash payments will be made.

RoadHog, Inc.

P.O. Box 519 Brownsburg, IN 46112 Phone 317-858-7050 Fax 317-858-7053

www.roadhog-inc.com

email this claim to warranty@roadhog-inc.com

RoadHog must be notified prior to any warranty service being performed.

Dealer _____

Product model _____

City _____

Serial number _____

Customer _____

RoadHog representative _____ Date contacted _____

RoadHog RGA # _____ (required for parts return)

Description of problem and work performed _____

Dates work performed _____ Dealer service invoice number _____

Published hourly shop rate \$ _____

multiplied by .75 (75% of published shop rate)

RoadHog reimbursement rate _____ X _____ hours = 1. Requested labor \$ _____

Miles traveled _____

RoadHog reimbursement rate multiplied by 1.00 X _____ miles = 2.

Requested mileage \$ _____

Parts used _____

_____ = 3. Requested parts \$ _____

Total warranty claim \$ _____

This form parts must be completed and all parts returned within 30 days of repair and must include all information above, including dealer service invoice, in order for the claim to be considered. Credit will be issued if it is determined that a manufacturing process or a part was defective. No cash payments will be issued.

Roadhog disposition _____

RoadHog, Inc.

P.O. Box 519 Brownsburg, IN 46112 Phone 317-858-7050 Fax 317-858-7053
www.roadhog-inc.com

New Machine Delivery Report

Model number _____ Date _____

Serial number _____

Delivery Location _____

Dealer personnel making the delivery / start-up _____

Comments / Condition _____

Any items needing correction _____

Dealer

Customer

The above unit has been delivered on the date shown and according to the conditions as shown. If sold, the customer has been instructed in the Operation of the attachment, and has read and understands the owners manual.

We acknowledge the receipt of above attachment the condition set forth and have been instructed in the operation and maintenance of the attachment and have read and understand the owners manual.

(This acknowledgement is required to start the warranty period.)

Stock _____ Rental fleet _____ Sold _____

Name of Dealer _____

Address _____

City _____

Zip code _____

Phone number _____

Authorized by _____

Printed signature _____

Date _____

Name of Purchaser _____

Address _____

City _____

Zip code _____

Phone number _____

Authorized by _____

Printed signature _____

Date _____

RoadHog, Inc.

P.O. Box 519 Brownsburg, IN 46112 Phone 317-858-7050 Fax 317-858-7053
www.roadhog-inc.com

Owner Information Card

Model number _____

Delivery Date _____

Serial number _____

Name of Owner _____

Name of Dealer _____

Address _____

Address _____

City _____

City _____

Zip code _____

Zip code _____

Phone number _____

Phone number _____

This sheet must be faxed or mailed to RoadHog within 30 days of delivery. The warranty period is established once this information is received. No warranty will be processed until this information is on file with RoadHog.