DATE: June 23, 2009


MACHINE MODEL(S): SP2R
CX Hammer
C-CX Hammer Conversion
Model C Spiking Machine
99C Spiking Machine
Hydra-Spiker Model 44
Hydra-Hammer Model B-2
SP2R Spike Puller
Grabber LS-2 Spike Puller
Grabber Conversion
Anchor Remover Model 67
Anchor Applicator Model E and Model F
Super Claws LS-1 Spike Puller
Super Claws Conversion
Production Screw Spiker
M3 Machines
SS Spiker
Two-Tie Screw Spiker

SERIAL NUMBER(S): Affected serial numbers are listed on the various PSbs

SUMMARY: The warranty period for PSB 2007-010, 2007-013A, 2008-003, 2008-004 and 2008-006 will expire on August 31, 2009. Requests for warranty replacements must be received prior to August 31, 2009. Warranty requests for kits or parts listed in these PSBs will not be honored after that date. Parts will still be available for purchase if required after that date.
OPERATIONAL IMPACT: Please review the individual PSBs for details. For your convenience, the affected PSBs are included with this bulletin.

ACTION: Contact the Nordco Service Department at 1-800-445-9258 to order kits or parts under warranty. Please have your machine serial number available when calling. No parts will be supplied under warranty without a machine serial number.

WARRANTY: Parts listed on the affected PSBs will be supplied under warranty until August 31, 2009.
Product Support Bulletin 2007-010

Maintenance of Way ~ Work Equipment Bulletin

DATE: November 18, 2007

SUBJECT: High Volume Propel Valve Kit – 660197
          Anti-turbulence Washer – 500765

RATING: DIRECTIVE (Action is required)
         ALERT (Potential Problem)
         INFORMATION (Action is optional)
         PRODUCT IMPROVEMENT (Enhance Product)

MACHINE MODEL(S): SP2R Spike Puller

SERIAL NUMBER(S): 310001-310083, 310098, 310101-310103

SUMMARY: The original 1699042 Propel Valve would restrict oil flow under certain conditions. This would result in a slower top speed of the machine during track travel. The valve may also stick on occasion, particularly if the hydraulic oil is hot and valve is cold.

To solve these problems, the original Propel Valve is being replaced with the High-Volume Propel Valve, p/n 660197.

OPERATIONAL IMPACT: The new 660197 High-Volume Propel Valve Kit replaces the original D05 size Propel Valve with a larger D07 size Propel Valve. This larger valve allows increased oil flow to improve the top speed of the machine. In addition, the larger valve spool is less likely to stick in the valve bore because of temperature extremes.

ACTION: The original 1699042 Propel Valve must be removed from the machine and replaced with the new D07 High-Volume Propel Valve, p/n 500743. See Figure 1 on Page 2.

A new 500744 Adapter Block to adapt the original D05 valve hole pattern to the new D07 valve hole pattern is installed on top of the Flow Control Module Block. The new 500743 Propel Valve is installed on top of the Adapter Block as shown in Figure 2 on Page 2.
In addition, the **500765 Flow Control Anti-turbulence Washer** must be installed in the Propel Flow Control Module. Remove the Propel Flow Control Valve, install the Anti-turbulence Washer in the Flow Control Valve Cavity and replace the Flow Control Valve. This washer eliminates turbulence at the inlet of the flow control and prevents travel speed surging. See Figure 3 on Page 3.

**A Propulsion Conversion Kit P/N 660197**, containing the 500743 D07 High-Volume Propel Valve, 500744 Adapter Block, 500765 Anti-turbulence Washer and all hardware and o-rings is available from Nordco.

**WARRANTY:** The Propel Valve Replacement Kit will be supplied under warranty for all SP2R machines 310001-310083, 310098 and 310101-310103. The kits may be ordered by contacting the Nordco Service Department at 1-800-445-9258. Please have the machine serial number available when ordering.

Machines 310084-310097, 310099-310100 have had the 500743 D07 Travel Valve installed at the factory. However, these machines will require the 500765 Anti-Turbulence Washer to be installed. This washer will also be provided by Nordco under warranty.
Figure 3
Installation of 500765 Anti-turbulence Washer in the Propel Flow Control Valve Module
DATE: April 12, 2008

SUBJECT: Pump Outlet Ball Valve Kit – 98410237 & 98450041
        Brake Valve Filter Plate Kit - 98410238

RATING: X DIRECTIVE
        (Action is required)

            INFORMATION
        (Action is optional)

            ALERT
        (Potential Problem)

PRODUCT IMPROVEMENT
        (Enhance Product)

MACHINE MODEL(S):

CX Hammer
C-CX Hammer Conversion
Model C Spiking Machine
99C Spiking Machine
Hydra-Spiker Model 44
Hydra-Hammer Model B-2
SP2R Spike Puller
Grabber LS-2 Spike Puller
Grabber Conversion
Anchor Remover Model 67
Anchor Applicator Model E and Model F
Super Claws LS-1 Spike Puller
Super Claws Conversion
Production Screw Spiker
M3 Machines
SS Spiker
Two-Tie Screw Spiker

See Page 2 for Machine Serial Numbers
SUMMARY:

Contamination in the hydraulic system may become trapped in the Brake Valve of these machines, which might prevent the brakes from applying normally.

To help keep contamination out of the Brake Valve, a Brake Valve Filter Plate Kit, p/n 98410238, has been designed and is now available. See Figure 1 on Page 3. The SS Spiker uses a different type of brake valve than the rest of the listed machines and does not require the Filter Plate.

Also, there have been instances of the brakes not being applied when the Emergency Stop Pushbutton was pressed and the Brake Valve was stuck in the released position. This was due to pressure being held in the Brake Cylinders by the Check Valve installed on the outlet of the main pump.

This Check Valve was installed to allow the Emergency Pump to be operated without back feeding through the main pump. A Ball Valve replaces the original Check Valve on the pump outlet port. This Ball Valve is opened for normal operation and closed when the Emergency Pump is being used.

There are 2 different sizes of Ball Valves used, depending on the machine and the hydraulic pump installed on that machine. Model C Spiking Machines, 99C Spiking Machines, Grabber Spike Pullers, Anchor Removers, Production Screw Spikers and some M3s are equipped with a Vickers model PVH131 or PVM131 pump and use Ball Valve Kit 98450041. All other listed machines are equipped with a Vickers model PVH57 or PVM57, model PVH74 or PVM74 or model PVH98 or PVM98 pump and use Ball Valve Kit 98410237. Please refer to the chart on Page 4 to determine which Ball Valve you will need for your particular machine.

OPERATIONAL IMPACT:

The 98410238 Filter Plate Kit will help prevent contamination from entering the Brake Valve from the Pump and also from the Brake Cylinders which could cause the valve to stick in the released position.

The 98450041 or 98410237 Ball Valve Kit will allow the pump pressure to quickly bleed out of the Brake Cylinders in the event the Emergency Stop Pushbutton is pressed.
ACTION:
The Filter Plate is installed directly under the existing Brake Valve. See Figure 2 on Page 3. Remove the 4 screws holding the Brake Valve to the manifold. Place the Filter Plate in position on the manifold and reinstall the Brake Valve using the longer mounting screws included with the Filter Plate Kit. **The Filter Plate is NOT required on SS Spiker machines.**

The Ball Valve replaces the pump outlet Check Valve. Remove the 4 capscrews holding the Outlet Hose and Check Valve to the pump. Remove the Check Valve. Install the Ball Valve on the Pump with the O-ring toward the Pump and the Operating Shaft toward the engine. Reinstall the Outlet Hose using the bolts supplied with the Ball Valve Kit. See Figure 3 on Page 4 and refer to the chart on Page 4 to determine which Ball Valve Kit you need for your particular machine. **Make sure to follow all Lock Out/Tag Out procedures when installing the Filter Plate and Ball Valve.**

WARRANTY:
Filter Plate Kits and Ball Valve Kits will be supplied under warranty for all machines built in 2006 or 2007. Please contact the Nordco Service Department at 1-800-445-9258 to see if your machine is covered under this warranty.

Figure 1
Brake Valve Filter Plate Kit - 98410238

Figure 2
Typical Filter Plate Kit Installation
(SP2R Shown; other machines are similar)
### Pump Ball Valve Kit Selection Chart

<table>
<thead>
<tr>
<th>MACHINE</th>
<th>SERIAL NUMBERS</th>
<th>PUMP</th>
<th>BALL VALVE KIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>CX Hammer</td>
<td>410500-410783</td>
<td>PVH98 or PVM98</td>
<td>98410237</td>
</tr>
<tr>
<td>C-CX Conversions</td>
<td>410010RBUG-410424RBUG</td>
<td>PVH98 or PVM98</td>
<td>98410237</td>
</tr>
<tr>
<td>Model C Spiking Machine</td>
<td>410100-410199 (except RBUG)</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>Model 99C Spiking Machine</td>
<td>410220-410424 (except RBUG)</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>Hydra-Spiker Model 44</td>
<td>440001-440008</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>Hydra-Hammer Model B-2</td>
<td>1044-1093</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>SP2R Spike Puller</td>
<td>310001-310101</td>
<td>PVH98 or PVM98</td>
<td>98410237</td>
</tr>
<tr>
<td>Grabber LS-2 Spike Puller</td>
<td>330600-331001</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>Grabber Conversion</td>
<td>330101RBUG-330599RBUG</td>
<td>PVH98 or PVM98</td>
<td>98410237</td>
</tr>
<tr>
<td>Anchor Remover</td>
<td>670001-670029</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>Anchor Applicator Model E &amp; F</td>
<td>680232-680325</td>
<td>PVH57 or PVM57</td>
<td>98410237</td>
</tr>
<tr>
<td>Super Claws LS-1 Spike Puller</td>
<td>350500-350548</td>
<td>PVH74 or PVM74</td>
<td>98410237</td>
</tr>
<tr>
<td>Super Claws Conversion</td>
<td>350101RBUG-350499RBUG</td>
<td>PVH74 or PVM74</td>
<td>98410237</td>
</tr>
<tr>
<td>Production Screw Spiker</td>
<td>400100RBUG-400111RBUG</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>M3*</td>
<td>562-589, 450001-450242</td>
<td>PVH74 or PVM74</td>
<td>98410237</td>
</tr>
<tr>
<td>M3*</td>
<td>562-589, 450001-450242</td>
<td>PVH98 or PVM98</td>
<td>98410237</td>
</tr>
<tr>
<td>M3*</td>
<td>562-589, 450001-450242</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
<tr>
<td>SS Spiker</td>
<td>390001-390245</td>
<td>PVH98 or PVM98</td>
<td>98410237</td>
</tr>
<tr>
<td>Two-Tie Screw Spiker</td>
<td>400101-400103</td>
<td>PVH131 or PVM131</td>
<td>98450041</td>
</tr>
</tbody>
</table>

*Check your particular machine to determine pump model used.*
DATE: June 6, 2008

SUBJECT: Battery Cables Secured to Hydraulic Hoses  
Anti-abrasion Sleeve Kit – 98411100

RATING: ☒ DIRECTIVE  
(Action is required)  
☐ ALERT  
(Potential Problem)  
☐ INFORMATION  
(Action is optional)  
☐ PRODUCT IMPROVEMENT  
(Enhance Product)

MACHINE MODEL(S): All Nordco Machines Equipped with a Battery

SERIAL NUMBER(S): All (including RBUG machines)

SUMMARY: The positive battery cable from the battery to the starter connection on the engine may be secured to a hydraulic hose with cable ties. Because of the vibrations of the hose, the cable insulation and outer hose covering may wear through causing a short circuit with the wire braid of the hose. This also applies to cables connected from the battery to the Electric Emergency Pump if the machine is so equipped. See Figure 3 on Page 3.

OPERATIONAL IMPACT: If the battery cable shorts out to the hose, the hose may burst. Pressurized hydraulic oil spraying out of the hose could be ignited from the heat generated by the short circuit and start a fire. Figure 1 on Page 2 shows a worn cable.

ACTION: All machines should be inspected and if the battery cables or Emergency Pump cables are secured to a hydraulic hose, the wire ties should be cut off and the cables rerouted away from the hose and secured in clamps. In addition, ALL battery cables should be covered with an Anti-abrasion Sleeve. Anti-abrasion Sleeve Kits, p/n 98411100 are available under warranty from Nordco for all of the affected machines. This kit includes 30 feet of Anti-abrasion Sleeve, p/n 5102506, 5 Double Clamps, p/n 24708976 and 2 Single Clamp, p/n 24709022. The clamps are welded to the frame of the machine as required. See Figure 2 on Page 3. Be sure to follow all Lock Out-Tag Out procedures before welding. Consult your machine manual for specific Lock Out-Tag Out procedures.
The various machines all have different battery, emergency pump and engine locations, so cable routing will vary for the different machine models. However, the battery cable clamps should be placed no more than 3 feet apart and the cables should be routed to avoid sharp edges of the engine and frame. Some machines, especially older Grabber Spike Pullers with the battery mounted at the rear of the machine may need 2 kits, but most machines will only require 1 kit.

WARRANTY: Please order part number 98411100 and have your machine serial number available when ordering. No kits will be supplied under warranty without a machine serial number. Contact the Nordco Service Department at 1-800-445-9258 to order the sleeve kit.

Figure 1
Worn Battery Cable
Figure 2
Cables in Clamps & Covered with Anti-abrasion Sleeve

Figure 3
Electric Emergency Pump
Maintenance of Way ~ Work Equipment Bulletin

DATE: June 4, 2008

SUBJECT: Brake Light Wiring Kit – 98310007

RATING: ☒ DIRECTIVE
           (Action is required)

           ☐ ALERT
           (Potential Problem)

           ☐ INFORMATION
           (Action is optional)

           ☐ PRODUCT IMPROVEMENT
           (Enhance Product)

MACHINE MODEL(S): SP2R Dual Rail Spike Puller

SERIAL NUMBER(S): 310001-310028, 310030-310067, 310072-310092, 310094-310112, 310115-310122, 310124-310125, 310127-310128

SUMMARY: The Brake Lights on these machines will go out when the yellow Electrical Interlock Button is pushed in. The Brake Light circuit must be rewired with Kit 98310007. Note: This bulletin does not apply to machine serial numbers 310029, 310068-310071, 310113 and 310114. These machines have a different brake light circuit and do not need to be rewired. Also, machine serial numbers 310093, 310123, 310126, 310129 and above have been corrected by Nordco.

OPERATIONAL IMPACT: If the machine is stopped with the Electrical Interlock Button pushed in, the Brake Lights will not be lit and the operator of a following machine may not realize that the machine has stopped.

ACTION: The Brake Lights must be rewired and CB5 must be replaced with a 25 amp circuit breaker. Follow the instructions in Figure 1 on Page 2 to rewire the Brake Light circuit. After the lights are rewired, the Brake Lights should remain on with the Electrical Interlock Button pushed in. The kit consists of 1 25 amp Circuit Breaker, p/n 5128938, 2 feet of Red Wire, p/n 5223092, 2 Ring Tongue Wire Terminals, p/n 5164299 and installation instructions. Installation should take approximately 30 minutes. Be sure to follow all Lockout-Tagout procedures before installing the kit.
WARRANTY: Brake Light wiring Kit 98310007 will be supplied under warranty for all machines listed in this bulletin. The machine serial number will be required for all warranty requests. Technical support to assist in rewiring the Brake Lights is available through the Nordco Service Department. Please call 1-800-445-9258 for assistance if required.
Maintenance of Way ~ Work Equipment Bulletin

DATE: June 23, 2008

SUBJECT: Cab Latch Mounting Hardware Kit - 98412435

RATING: DIRECTIVE (Action is required) ALERT (Potential Problem) INFORMATION (Action is optional) PRODUCT IMPROVEMENT (Enhance Product)

MACHINE MODEL(S): CX Hammer C-CX Conversion SP2R Spike Puller

SERIAL NUMBER(S): CX Hammer: 410500-410838 C-CX Conversion: 410051RB-UG, 410054RB-UG, 410055RB-UG, 410081RB-UG, 410084RB-UG, 410101RB-UG SP2R Dual Rail Spike Puller: 310001-310139

SUMMARY: The original latch attachment hardware was either a Phillips head machine screw (CX Hammer) or a hex head capscrew (SP2R). See Figure 1 on Page 2. These screws have shown a tendency to loosen over time. If the screws are loose, the doors may not latch properly.

OPERATIONAL IMPACT: There are two latches for each door, one to hold the door in the closed position and one to hold it in the open position. If the doors do not latch properly, they may swing open or closed unexpectedly, causing damage to the door or possible injury to the operator or others.

ACTION: The existing latch hardware should be replaced using Cab Latch Mounting Hardware Kit 98412435. This kit includes the necessary hardware to replace the mounting screws on both the Door Open Latch and the Door Close Latch of one door. Two kits are required per machine. Each kit includes the following hardware:

- 4 of p/n 19545627 – ¼" x 1¾” Grade 5 Tap Bolt
- 8 of p/n 3060466 – ¼” Hardened SAE Flat Washer
- 4 of p/n 3064464 – ¼” Lockwasher
- 4 of p/n 3042013 – ¼” Grade 5 Locknut
The Latch Assemblies must be removed from the cab to replace the hardware. Assemble the hardware as shown in Figure 2 and 3 on Page 3. The Locknut is used to help keep the latch from loosening. Tighten the capscrew to 8-10 ft/lbs.

**WARRANTY:** Cab Latch Mounting Hardware Kits will be supplied under warranty for all machines listed on this bulletin. Contact the Nordco Service Department at 1-800-445-9258 to order. The machine serial number must be provided when ordering.
Figure 2
98412435 Cab Latch Mounting Hardware Kit Installed

Figure 3
98412435 Cab Latch Mounting Hardware Kit Installed