NUMBER: 06-01-1-WL

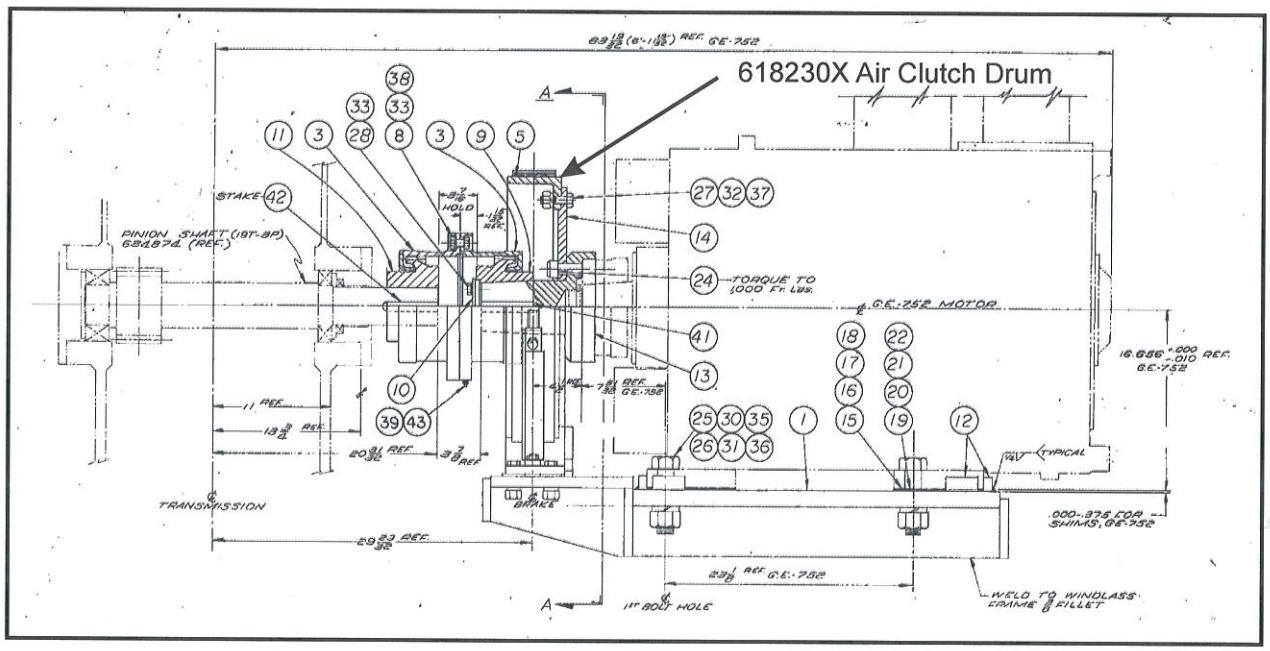
PRODUCT: CLASS D-500 NATIONAL MOORING WINDLASS

SUBJECT: MOTOR BRAKE INSTALLATION – AIR CLUTCH DRUM

WARNING

It has come to our attention the Air Clutch Drum (National part number 618230X), if made from cast grey iron or cast nodular iron, could fail due to fatigue, over speeding during chain payout, or excessive loading. These 24" clutch drums are used on the motor brake installation and are to be used as primary inertia brakes only.

These drums were manufactured from cast grey or nodular iron prior to 1974 – after which they were manufactured from a cast steel. Those parts which are cast steel are acceptable for this application. Any drums which are cast grey iron or cast nodular iron could lead to catastrophic failure and would need to be removed from service.



For further information contact:

National-Oilwell Varco Service Department

Phone: (651) 293-4725/ (651) 293-4602

Fax: (651) 293-4686

email: Aftermarket.serviceparts@NOV.com

Methods that can determine if part is cast iron or cast steel:

There are several methods (beside chemical analysis and/or destruction of part) that can be used:

1. Ultrasonic method:

   This method is non-destructive using ultrasonic equipment to measure the sound velocity.

   Gray iron has about 4800 m/s longitudinal sound velocity
   Nodular iron has about 5600 m/s velocity
   Steel has about 5900 m/s velocity.

   Sound velocity can be done by ASTM E484 or by using flaw detector with thickness/velocity calibration technique. This can be accomplished by a level II or higher inspector with proper instructions and some calibration knowledge.

2. Metallographic method:

   This requires a polished a spot on the metal and small portable microscope to examine the microstructure. The polishing spot does not have to be very big and one can use a small inexpensive microscope. The polished surface has to be very close to mirror. The Cast Grey Iron will show the graphite and Cast nodular iron will show nodules at the as-polished surface. The steel surface will not show anything as polished. This can be done by a grinding tool with sand disc and polishing cloth. This should be performed with a properly trained technician who has knowledge of grain structures.

3. Alarm System:

   We can offer a proposal for an overspeed alarm system. Please contact our Accessory Sales Department at (651) 293-4600. /1\

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: 06-02-01-ST

PRODUCT: Turnback Roller / Winchline Deflector Assembly #5281A010

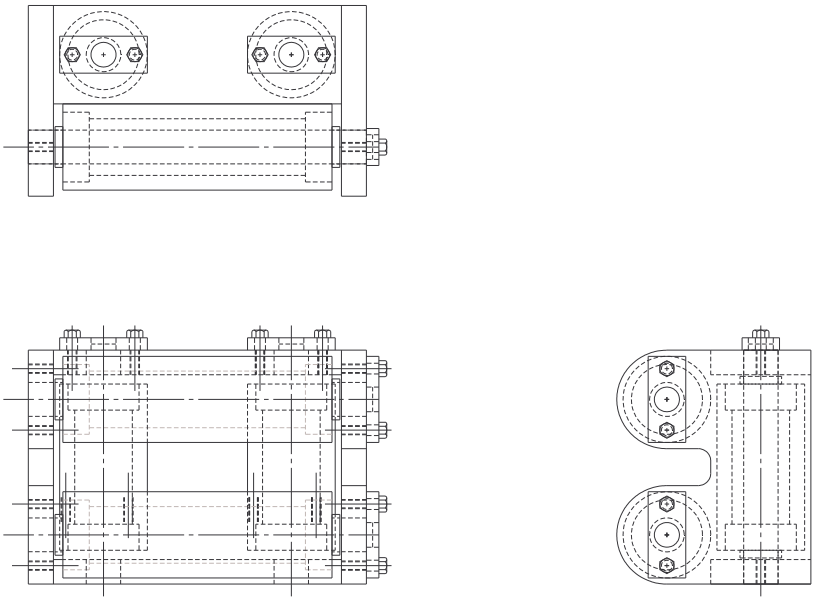
SUBJECT: Shaft Material

This bulletin applies to National Oilwell-Varco turnback roller / winchline deflector assemblies located in masts and derricks.

It has come to our attention that certain roller shafts in some cases been incorrectly used. The condition has created the possibility for a cracked weld to occur, thus loosening the roller shaft.

A replacement kit comprising of part numbers #5281D071-Horizontal Shaft Detail, and #5281D072-Vertical Shaft Detail along with a revised assembly drawing #5281A010, are available by request from the National Oilwell Service Department. Our service department will be pleased to quote you a price and delivery.

If you have any questions you may contact National Oilwell service personnel by telephone in Edmonton at (780)944-3800.



TURNBACK ROLLER / WINCHLINE DEFLECTOR ASSEMBLY
REF. #5281A010

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: 06-04-01-FK

McAlester Engineering

PRODUCT: HEX 240 DRILLING PUMP

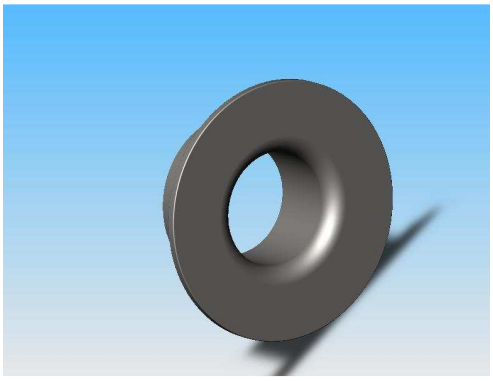
SUBJECT: WEARPLATE
PART NUMBER 80-710-023

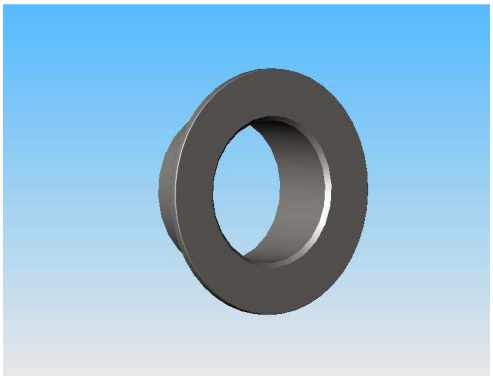
The wearplate has been revised to provide better flow through the bore by reducing the flow resistance.

Originally, the bore was 76.200 millimeters, (3.000 inches). The revised wearplate has a bore of 101.6 millimeters, (4.0 inches). In addition, the entrance radius has been changed to a chamfered entrance of 3.2 millimeters x 45 degrees, (1/8 inches x 45 degrees). The exit end of the bore is chamfered similarly.

The new wearplate is revision D. Part number remains the same as before, 80-710-023.

<u>Only wearplates with the larger diameter bore should be used in the Hex 240 drilling pump.</u>





501 N. GEORGE NIGH EXPRESSWAY McALESTER, OK 74501 (918) 423-8000

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: **06-04-01-MP**

PRODUCT: HEX 240 MUD PUMP

SUBJECT: AC MOTOR INSTALLATION

A manufacturing error has been discovered in the Main Bearing Retainer of the CM632RUT AC Motors.

In order to check for this error a National Oilwell Varco service engineer will be sent to make the necessary checks and replace or repair the incorrect piece where required.

The check will be made with the AC Motor removed from its installed position.

Since this error has been discovered with a limited number of Hex 240 Mud Pumps (Serial Numbers 11292-H, 11293-H, 11294-H, 11295-H, 11296-H, 11301-H, and 11302-H), National Oilwell Varco has begun the process of locating the Hex 240 Mud Pumps and arranging the checks.

If you have any questions, please contact the Mud Pump Product Line Manager at 713-346-7905.

12950 West Little York Houston, Texas 77041 (713) 935-8000

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: 06-04-02-FK

McAlester Engineering

PRODUCT: HEX 240 DRILLING PUMP

SUBJECT: PISTON RODS
80-710-023 (ONCE PIECE)
80-710-024 & 80-710-047 (TWO PIECE ROD SET)

The piston rods for the Hex 240 drilling pump have been changed to prevent the possibility of stroking too close to the bottom of the liner.

The part number remains the same. Only the revision was changed. The latest revision is "C" for the one-piece rod, 80-710-070. Previous configurations of the rod are shown for revisions A and B. See the following pages for the progression of changes to the rod.

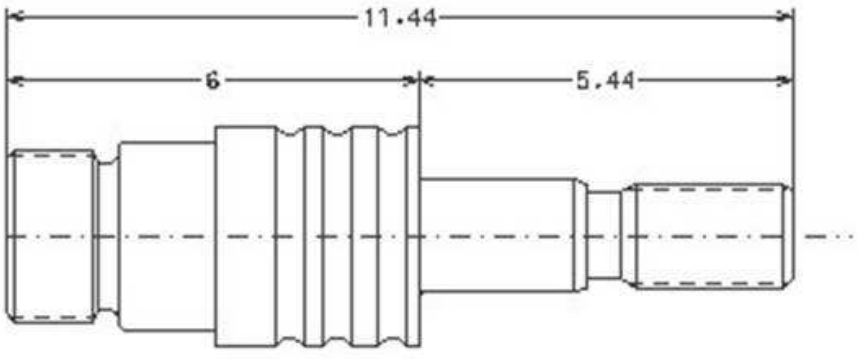
Early production of the Hex pump used a two-piece rod. The short piston rod was threaded into a sub-rod to make the assembly. Only the short piston rod (80-710-024) was affected by the changes in length. The sub-rod (80-710-047) was not changed. The combined length of the sub-rod and short piston rod are the same length as the one-piece rod, 80-710-070. See the following pages for the progression of changes to the rod.

The latest revision for the short piston rod is revision "F".

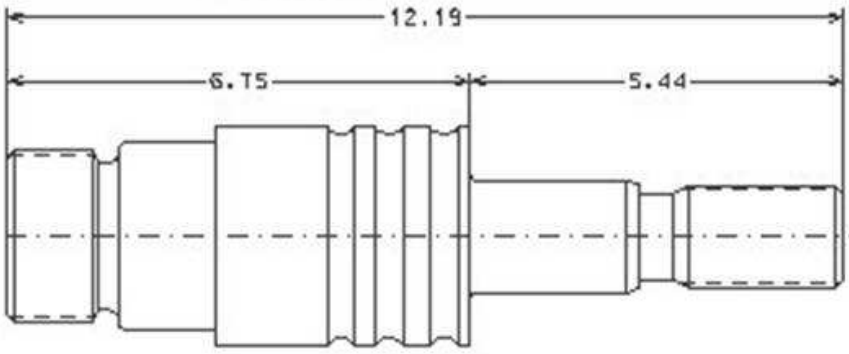
Only piston rod 80-710-070 rev C, or the short piston rod, 80-710-024 rev F, should be used in the Hex 240 pump.

Use of the previous rods can cause excessive mud bypass across the piston.

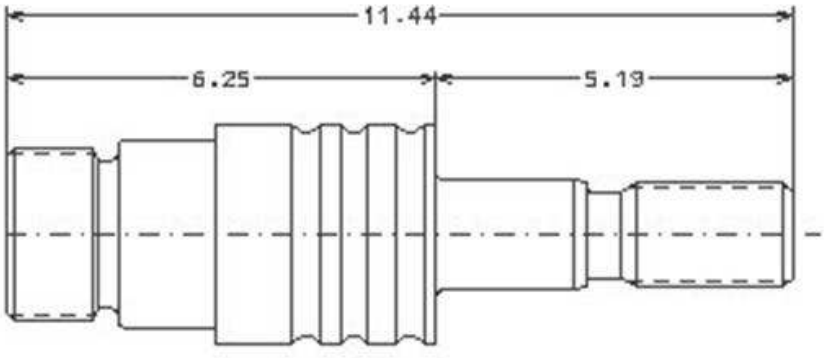
501 N. GEORGE NIGH EXPRESSWAY McALESTER, OK 74501 (918) 423-8000



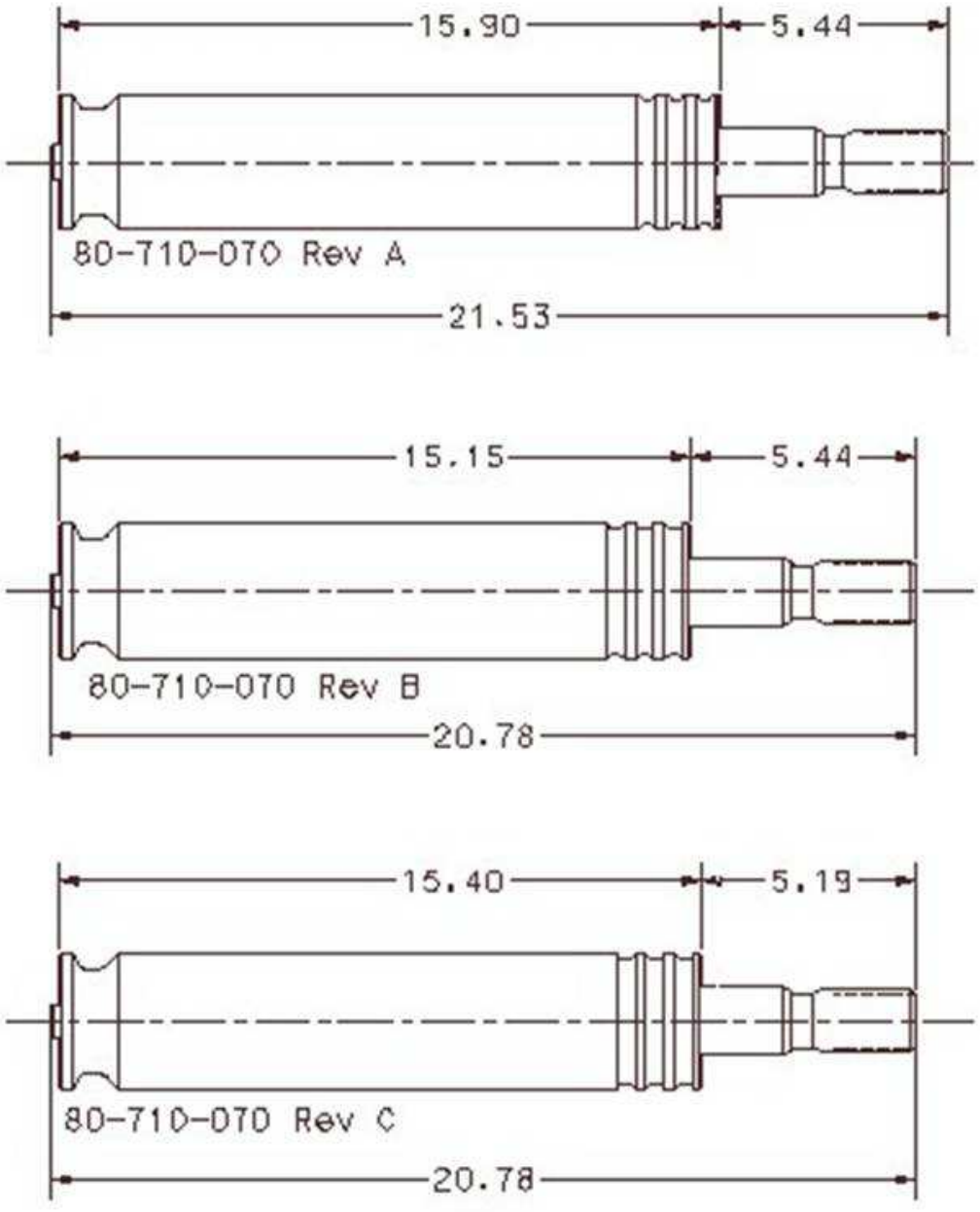
80-710-024 Rev. C



80-710-024 Rev. D



80-710-024 Rev. F


15.90
5.44
80-710-070 Rev A
21.53
15.15
5.44
80-710-070 Rev B
20.78
15.40
5.19
80-710-070 Rev C
20.78

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: 06-04-17-FK

McAlester Engineering

PRODUCT: MISSION Valves for the Hex Pump

SUBJECT: C/N 060152931HX Valves

The standard valve system for the Hex Pump is a P-4 Mission Double Duty upper and lower stem guided valve. The illustration below shows the original design to the right exhibited by the sharp outside diameter yellow polyurethane edge. The new design is shown to the left and has this sharp outside diameter point machined down to a flat and smaller insert outside diameter.

The revision is two fold: 1) the reduced outside diameter allows increased exit flow area; and 2) the smaller diameter eliminates insert damage created by the insert to seat contact at the top edge of the seat.

The new insert in this subject assembly is C/N 80-710-073.



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NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: 06-04-18-FK

McAlester Engineering

PRODUCT: HEX PUMP Spring Guide

SUBJECT: C/N 80-710-043 Revision

The suction and discharge valve spring guides are the same in the Hex Pump when using standard C/N 060152931HX P-4 Double Duty Valves. (Stem guided upper and lower valves.)

The picture below illustrates the original guide (steel color – unpainted) to the right and the newer guide design (green painted) to the left.

It is easy to see the newer green guide has angular spring guide ramps on its three wings to assist in spring installation. It also has a smaller valve stem clearance bore to assist in valve guidance.

Replace spring guides of the older type when convenient with the new (green) design.



501 N. GEORGE NIGH EXPRESSWAY McALESTER, OK 74501 (918) 423-8000

NATIONAL OILWELL VARCO

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N-4604 Kristiansand
Norway

Telephone: +47 38 19 20 00
Telefax: +47 38 19 23 11
E-mail: technical.support.norway@nov.com

Issued date: 29.03.2006
Prepared by: BØJ
Approved by:

PRODUCT INFORMATION BULLETIN
NUMBER: 69908459
PRODUCT: HydraRacker
SUBJECT: Pipe sensor on gripp head

SAFETY BULLETIN

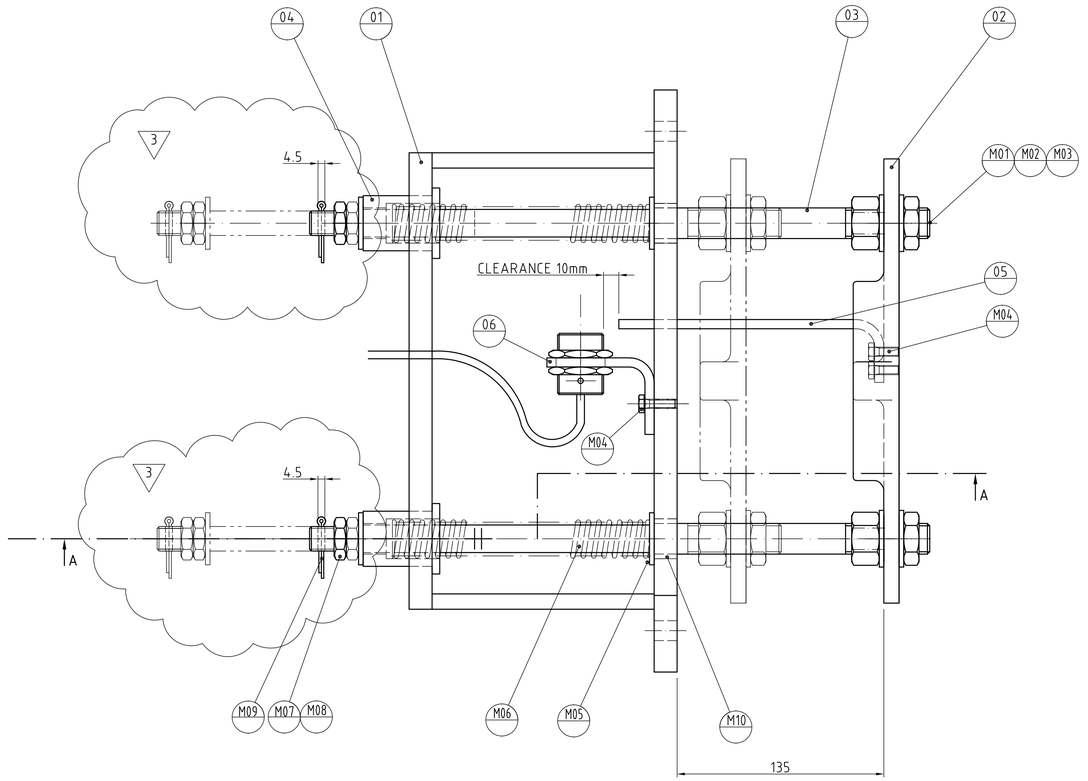
1. **PURPOSE:**
   Inform users of HydraRacker about the need of inspect the pipe sensor, drawing no:D1201-A0292.

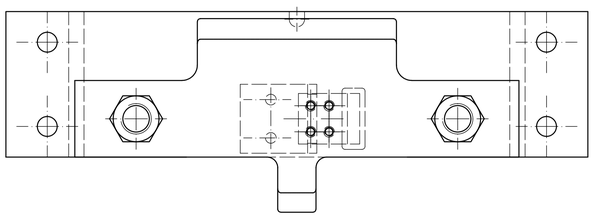
2. **CAUSE:**
   Feedback regarding loose nut on pipe sensor.

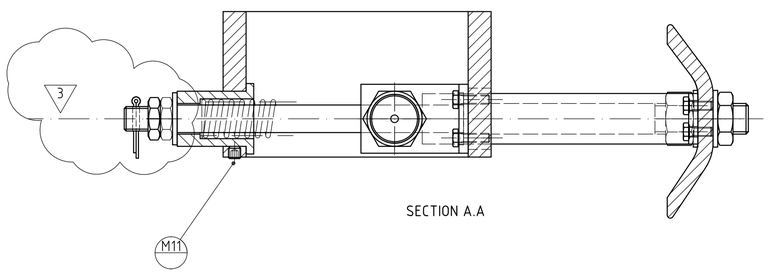
3. **ACTION:**
   Replace nut and pal nut with two low nuts tightened and secured by a split pin, according to enclosed drawing D1201-A0292

4. **DOCUMENTATION**
   Make this Safety Bulletin available to all operators of the actual equipment. Please confirm receipt of this letter as soon as possible so that we can be certain that you have received this information.

Rev.	Description of revision	Date / Sign.
1	LOCK SCREW ADDED	06.09.2001 PHM
2	ADDED NORDLOCK WASHER	02.03.2006 KJS
3	CHANGED NORDLOCK TO LOCK NUT	14.03.2006 KJS
3	ADDED SPLIT PIN	14.03.2006 KJS







SECTION A.A

This document and all information and data disclosed herein or herewith are the confidential and proprietary property of Hydralift asa. and are not to be used, reproduced or disclosed in whole or in part by or to anyone without the written permission of Hydralift asa.

Designed	Approved	Projection	Scale
26.06.01 PHM	12.07.01 MIC		1:2
Drawn			Format
26.06.01 PHM			A1

HYDRALIFT
Kristiansand, Norway

HYDRARACKER
3 1/2" - 9 5/8" GRIPPER HEAD
SENSOR ASSEMBLY

Replaces: | Replaced by:

File: d1201a0292.dwg | Rev.

D1201-A0292 | 3

NATIONAL OILWELL VARCO

Product Information Bulletin (PIB)

IRON ROUGHNECK	
Bulletin No.	**Description**
04-08-1-IR	Torque Cylinder Assembly
05-06-01-IR	Spinner: Grip, Rollers, Arm
05-06-02-IR	Torque Wrench: Cylinder and Jaw
05-12-01-IR	Remote Control Console
06-07-01-IR	Spinner & Wrench Upgrade
06-08-01-IR	Wrench Shims

NATIONAL OILWELL

PRODUCT INFORMATION BULLETIN

IRON ROUGHNECK PRODUCT
ENGINEERING

NUMBER: 04-08-1-IR
PRODUCT: IRON ROUGHNECK
SUBJECT: TORQUE CYLINDER ASSEMBLY

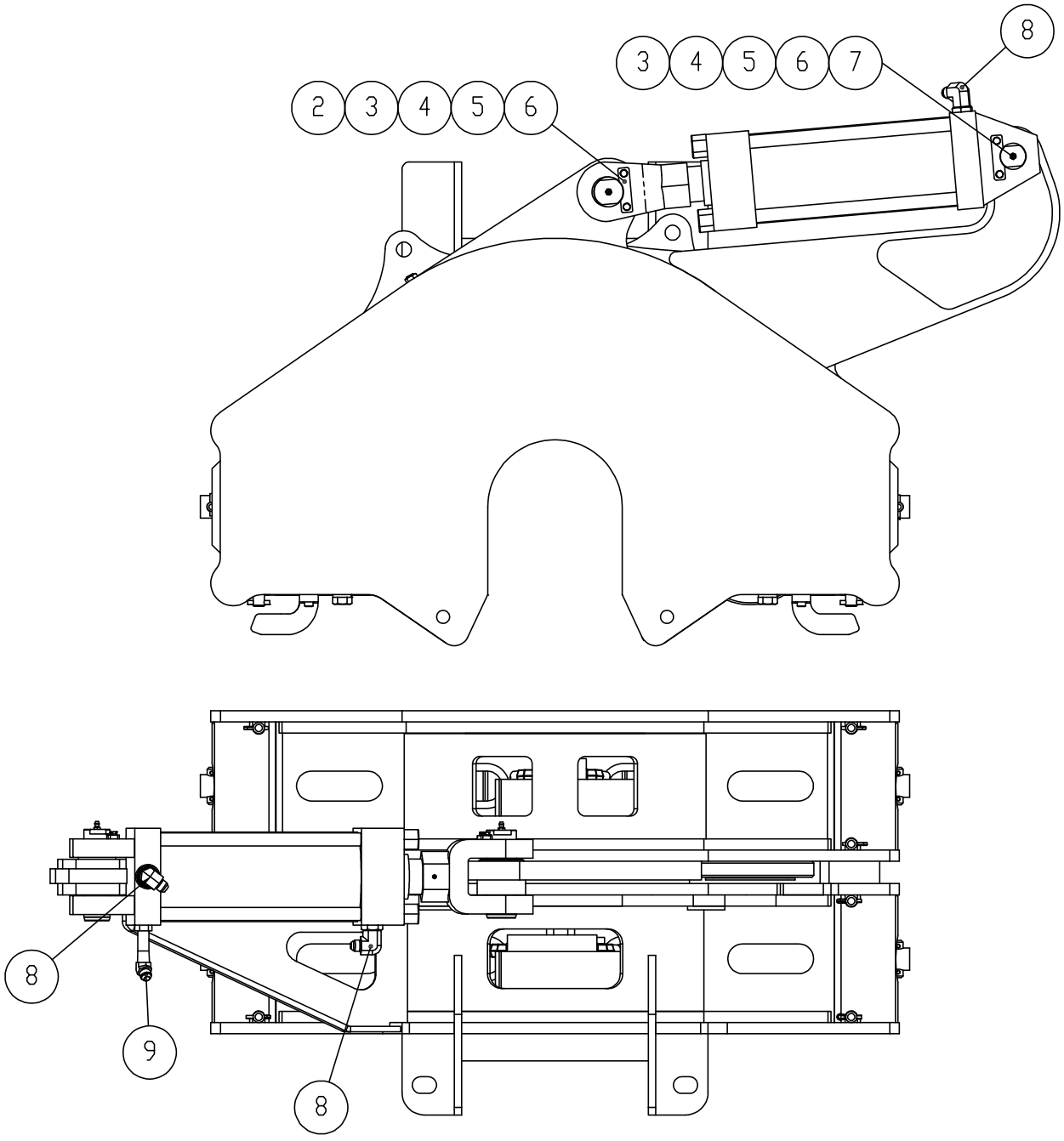
This bulletin applies to National Oilwell Iron Roughneck Models IR3080AR5501, IR3080AR5502, IR3080AR5503, IR3080AR5504, and IR3080AR8802, Serial Numbers 3-17, 19-33.

There have been reports that the existing externally mounted limit switch may become contaminated, thus not allowing the plunger on the limit switch to return to its neutral position, which in turn gives a false indication on the Remote Control Console that another makeup repeat must be made.

A new Torque Cylinder Assembly is available which consists of a built in limit switch. This switch sends a signal to the Remote Control Console when the cylinder has reached its fully retracted position. This limit switch is built in internally to the cylinder, which eliminates the possibility of contamination.

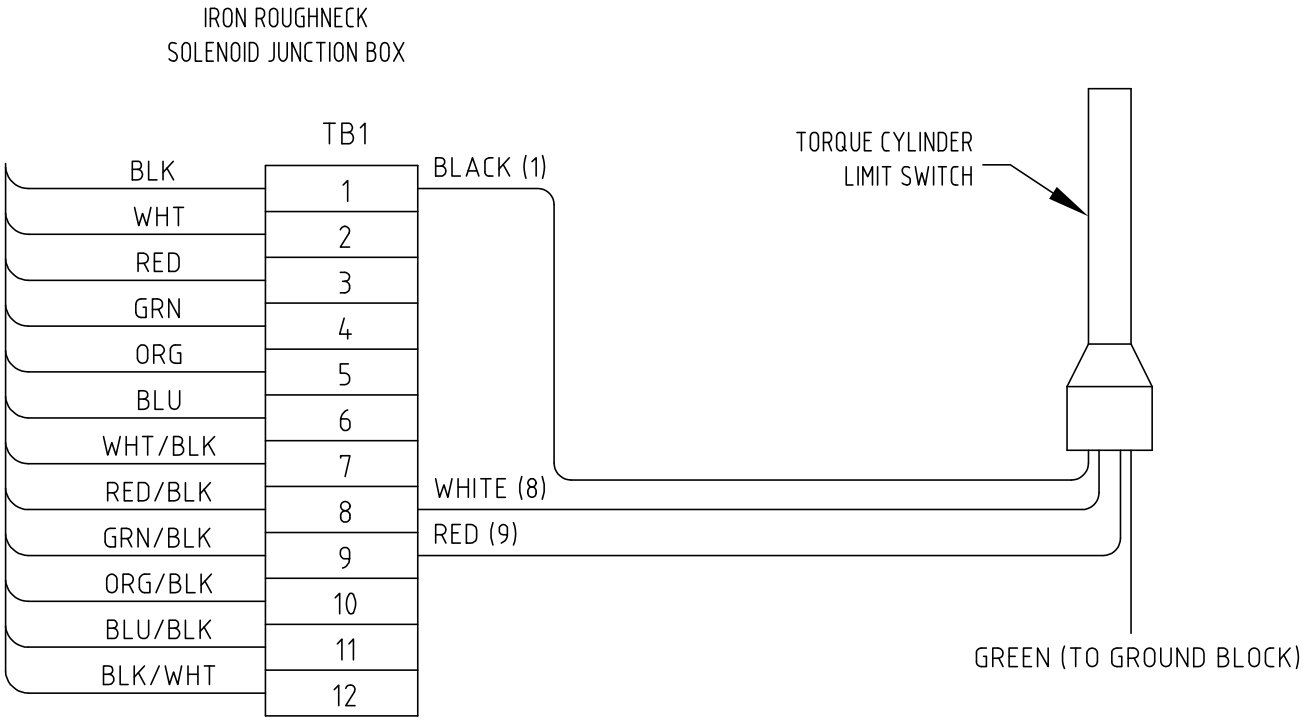
For the installation of the new torque cylinder assembly, remove the entire old torque cylinder assembly including the pins. Disconnect the wires from the old limit switch at the junction box mounted on the hydraulic enclosure and pull the cable out of the blue hose. Next, install the new torque cylinder assembly as shown in illustration 1. Route the wires from the new limit switch through the blue hose to the junction box mounted on the hydraulic enclosure. Please see illustration 2 for wiring information.

ILLUSTRATION 1



ITEM NO.	QTY.	PART NO.	DESCRIPTION / MATERIAL / SPECIFICATION
9	1	7800071	ELBOW, AEROQUIP 2023-8-8S
8	2	7804213	ELBOW, AEROQUIP 2062-12-8S
7	1	BW02-13-01-07	PIN, 1.75 DIA
6	4	7619033	WASHER, REG SPG LOCK 1/4" CD PL
5	4	2405190	SCREW, DR HD HEX HD CAP 1/4"-20 X 3/4" LG GR5 CD PL
4	2	BW02-13-03	LOCKING PLATE
3	2	SP01-03-06	GREASE FITTING 1/4-28 UNF STRAIGHT
2	1	BW02-13-01-06	PIN, 2.00 DIA.
1	1	BW02-13	TORQUE CYLINDER ASSEMBLY (includes limit switch)

ILLUSTRATION 2



NATIONAL OILWELL VARCO

Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-01-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **SPINNER: Grip, Rollers, Arm**

INFORMATION

CONTENT:

1. **PURPOSE**
2. **CAUSE**
3. **ACTION**
4. **DOCUMENTATION**

1. PURPOSE:

The purpose of this PIB is to inform IR170 users about available upgrades for the following items:

1.1 Spinner Grip Cylinder (P/N UHC-01-06)

1.2 Spinner Roller Assembly (P/N SP02-05)

1.3 Spinner Catch Arm (P/N 2028864)

2. CAUSES:

2.1. Spinner Grip Cylinder

2.1.1. There has been confusion about the change for the spinner grip cylinder because the new grip cylinder comes complete with a counterbalance valve, but the rod clevis is not part of the cylinder assembly and must be ordered separately.

2.2. Spinner Roller Assembly

2.2.1. The spinner roller assembly is being updated to take advantage of the 2-key motor and to utilize the same proven roller design used on other roughneck models.

2.3. Spinner Catch Arm

2.3.1. In some cases there can be poor spinner alignment with the pipe (from various causes). This misalignment can cause the catch arm to experience higher stresses due to an imparted bending moment and possibly lead to failure.

Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-01-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **SPINNER: Grip, Rollers, Arm**

3. ACTIONS

3.1. (Optional) Replace Spinner Grip Cylinder

3.1.1. No action is required for the Spinner Grip Cylinder. Parts are interchangeable and the new type cylinder will be plumbed in as shown in the image below. Please note that the cylinder comes with the valve already hard-plumbed to the blind (grip) side. **Error! Objects cannot be created from editing field codes.**

3.2. (Optional) Replace Spinner Roller Assembly

3.2.1. Spinner Roller Assembly has been updated to take advantage of the current motor design with the double-key shaft and utilizes our well-proven roller design.

3.3. (Optional) Replace Spinner Catch Arm

3.3.1. If the catch-arm has been bent or cracked or if the motor shafts do not line up axially then the arm should be replaced with the new version.

Iron Roughneck Product Engineering
11919 FM 529 Road
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Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-01-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **SPINNER: Grip, Rollers, Arm**

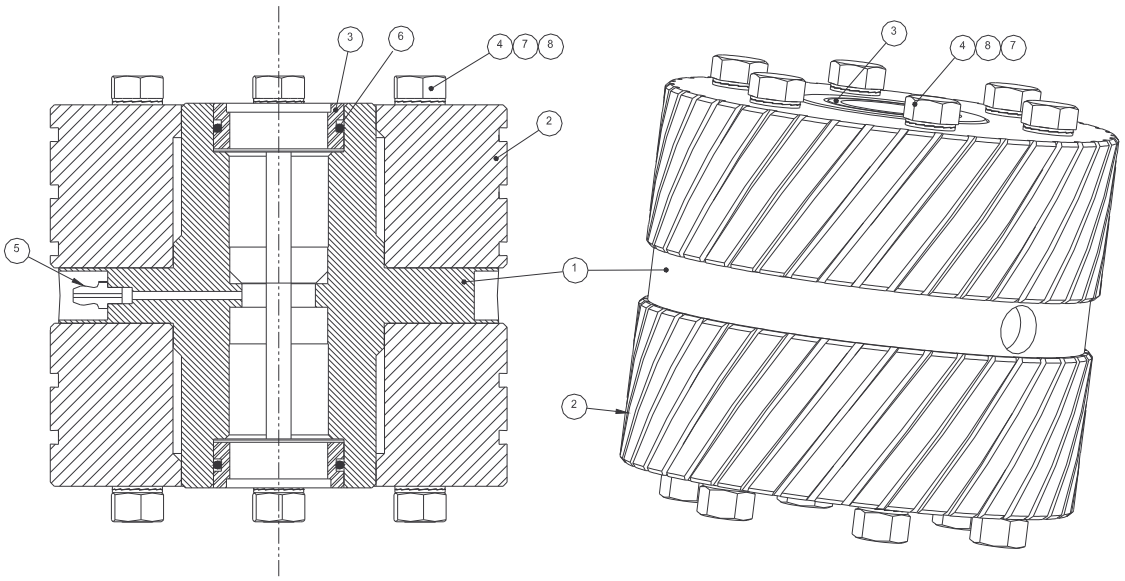
4. DOCUMENTATION

4.1. Description of changes made:

4.1.1. The spinner grip cylinder has been equipped with a counterbalance valve. This is plumbed so that the spinner itself will not require any changes to the design of the hydraulic system. The counterbalance valve is there to assist in keeping a good grip on the pipe even if the pipe surface is uneven or out-of-round. Also, the rod clevis has been made a separate part with its own part number.

4.1.2. The spinner roller assembly change includes a new hub (or body) as well as the rollers and seal spacer. The roller body has been slotted to accept the double-key arrangement on the newer motors and the roller. The assembly can be ordered as a whole (see below P/N SP02-05) or the parts can be ordered separately. The assembly is interchangeable (as a whole) but the individual parts are not compatible with the old design.

4.1.3. The spinner catch arm was strengthened in the area that is affected when initial contact with the pipe is uneven. This arm is interchangeable for all IR170 units.



ITEM NO.	QTY.	PART NO.	DESCRIPTION / MATERIAL / SPECIFICATION
8	6	6300081	NUT, HEX 1/2"-13UNC CD PL
7	12	7634040	WASHER, NORDLOCK NL1/2 1/2" ZINC PL
6	2	568224/020	O-RING 2.012 OD. X 1.734 ID
5	1	SP01-03-06	GREASE FITTING 1/4-28 UNF STRAIGHT
4	6	700032611	SCREW, HEX HD CAP 1/2"-13 X 6-1/2" LG CD PL
3	2	SP01-03-05	SEAL SPACER
2	2	SP01-03-02	ROLLER
1	1	SP02-05-01	ROLLER BODY

NATIONAL OILWELL VARCO

Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-02-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **Torque Wrench: Cylinder and Jaw**

INFORMATION

CONTENT:

1. **PURPOSE**
2. **CAUSE**
3. **ACTION**
4. **DOCUMENTATION**

1. PURPOSE:

The purpose of this PIB is to inform IR170 users about the following items:

1.1 Torque Wrench Clamp Cylinder (P/N TW01-12)

1.2 Cylinder Stops and Hardware Group

1.3 Jaw and Die Group (Optional)

2. CAUSES:

2.1. Torque Wrench Clamp Cylinder

2.1.1. The original tie rod style construction cylinder can fail when the body twists during operation. NOV will standardize on a welded-body construction cylinder.

2.2. Cylinder Stops and Hardware Group

2.2.1. The new cylinders have different end geometry, and this group of parts will allow retrofitting the cylinders with no alteration of the wrench housings.

2.3. Jaw and Die Group (Optional)

2.3.1. This is an optional upgrade to the standard universal jaw.

NATIONAL OILWELL VARCO

Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-02-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **Torque Wrench: Cylinder and Jaw**

3. ACTIONS

3.1. Replace Torque Wrench Clamp Cylinder (Use Part No. TW01-12)

3.1.1. It is suggested that users who have any clamping cylinders other than the current design change them out. All IR170 torque wrenches should use the welded-body cylinder.

3.2. Replace Cylinder Stops and Hardware Group

3.2.1. Cylinder End Stops and Hardware will have to be replaced to accommodate the new style of cylinders. Below is the list of required parts and quantity per machine.

Part Number	**Description**	**Qty. Req'd**
BW03-05	Cylinder End Stop	4
	Hardware for Cylinder Ends	
TW01-04	Ball Bushing	4
TW01-06	Rod Washer	4
TW01-07	Rod Pin	4
TW01-22	Pin, Spring ¼ x 1.5" Stainless	4
7815526	Pin, Hairpin Cotter	4

Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-02-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **Torque Wrench: Cylinder and Jaw**

3.3. (Optional) Jaw and Die Group

3.3.1. It is advised to use the standard universal jaw and die group. Upgrading to this arrangement is solely at the discretion of the user.

Parts for the Jaw Assembly are shown in the table below. The complete assembly can be ordered as part number ACO1. Each torque wrench takes two jaw assemblies

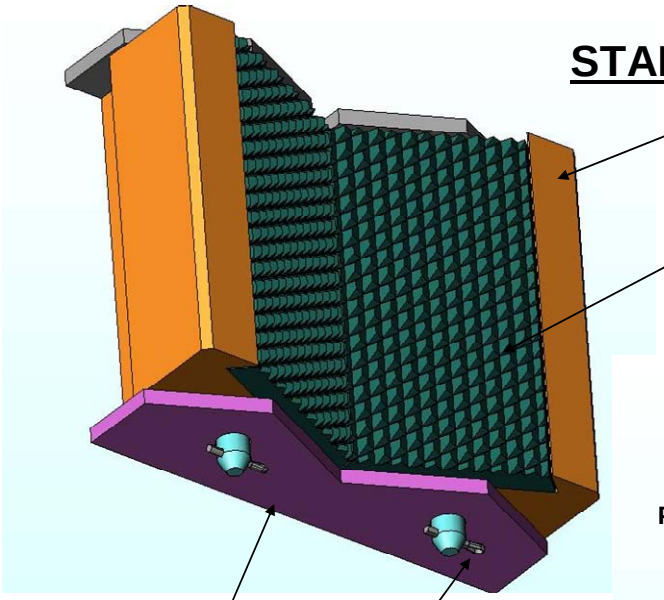
Part Number	**Description**	**Qty. Req'd**
AC01	**Complete Jaw Assembly**	N/A
AC-01-02-01	Wide Die Holder	1
AC01-02-01-01	Lock Plate 1	1
AC01-02-01-02	Lock Plate 2	1
AC01-01-03	Wide Die Plate (4 in) – Standard Use	2
AC01-01-02	Wide Die Plate (5 in) – Optional	(Optional)
AC01-01-01	Wide Die plate (6 in) - Optional	(Optional)
BW02-30	Pin, Lock Plate	2
7815527	Pin, Hairpin Cotter	2

Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-02-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **Torque Wrench: Cylinder and Jaw**

STANDARD JAW ASSEMBLY



DIE HOLDER: AC01-02-01

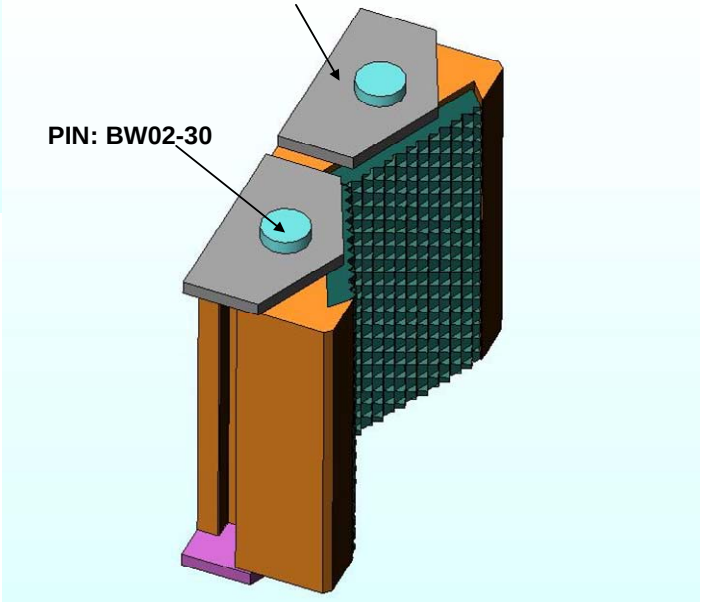
AC01-01-01 (6 IN) - AS SHOWN
AC01-01-02 (5 IN) - OPTIONAL
AC01-01-03 (4 IN) - STANDARD

COTTER PIN: 7815527

BOTTOM LOCKING PLATE: AC01-02-01-02

TOP LOCKING PLATE: AC01-02-01-01

PIN: BW02-30



Iron Roughneck Product Engineering
11919 FM 529 Road
Northwoods Industrial Park East
Houston, TX 77041
USA

PRODUCT INFORMATION BULLETIN

NUMBER: **05-06-02-IR**
PRODUCT: **Iron Roughneck, IR 170**
SUBJECT: **Torque Wrench: Cylinder and Jaw**

4. DOCUMENTATION

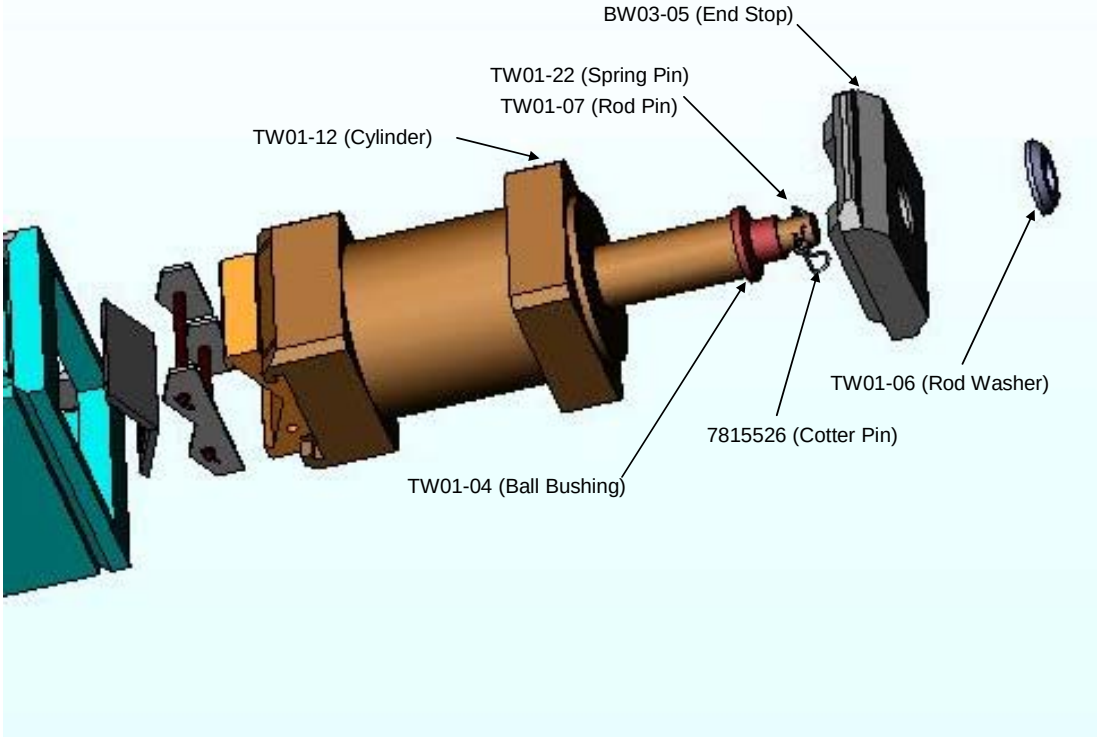
4.1. Description of changes made:

4.1.1. Torque Wrench Clamp Cylinder: Has been changed to welded-body construction. Tie rod type cylinders should no longer be used. This change affects all IR170 units with 5ksi cylinder operating pressure (and no third party certifications).

4.1.2. Cylinder Stops and Hardware Group: Has been updated for the new cylinders.

4.1.3. Jaw and Die Group: Optional upgrade to use the standard universal jaw assembly.

This image below illustrates a typical assembly for cylinder installation.
Assembly Note: Apply grease to the mating surfaces Ball Bushing (TW01-04) and End Stop (BW03-05).



NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

IRON ROUGHNECK PRODUCT ENGINEERING

NUMBER: 05-12-01-IR
PRODUCT: IRON ROUGHNECK
SUBJECT: REMOTE CONTROL CONSOLE

This bulletin applies to all National Oilwell Varco Iron Roughneck Models IR3080ARXXXX, IR30120ARXXXX, and 11000XX. This PIB does not apply to models IR3080AR8801 and 1100010.

There have been reports from the field of control component failures within the remote control console of the Iron Roughneck, which have been traced back to water-based contamination and/or corrosion. The remote control console can become contaminated with water if not maintained properly and cause malfunction of the console and Iron Roughneck. Care should be taken when cleaning the console. The console SHOULD NOT be washed with a power washer or sprayed with any other pressurized water system. The console should be cleaned with only a wet towel and hand-applied water. If water ingress is suspected, remove power from the console. Next, open the console and examine the inside of the box for water. If water is present, carefully dry the inside with a dry towel without damaging the internal components. Allow the inside to completely dry before plugging the power back in and turning the unit on. Ensure that all rig personnel are at a safe distance from the Iron Roughneck before turning the console on. If the console does not work or operate the Iron Roughneck properly, please contact your local National Oilwell Varco Service Center.

The silicon around the digital pressure gauge (if equipped) and the digital torque gauge should be checked periodically to ensure that there is proper adhesion and sealing. If the silicon bead is damaged or is missing, remove any remaining silicon around the gauge and clean the area with a cleaning solution where the new bead of silicon is to be applied. Apply a ¼" diameter bead around the gauge and ensure that the bead has proper adhesion to both the gauge and the stainless steel panel. Allow the silicon to dry completely before getting wet. Also check the digital indicator display for moisture. If moisture is present in the digital indicator display, it will need to be replaced.

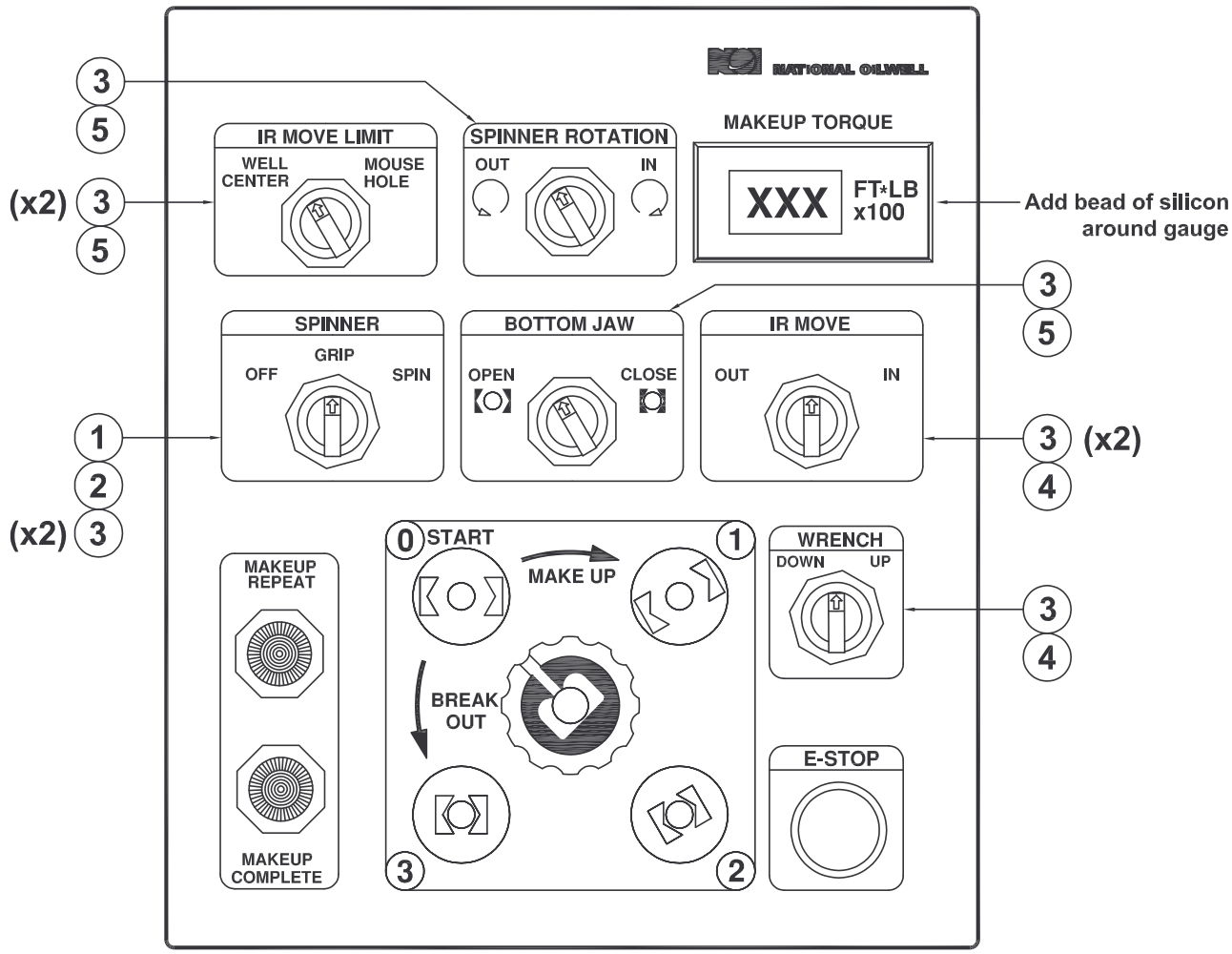
National Oilwell Varco offers component upgrades for the switches used on the remote control console. The switches are easier to operate as well as offer a higher level of protection against ingress. Your remote control console may already have the new switches installed. The new switches are easily identified by their gray wing lever knob. Please have only a qualified electrician install the new switches.

A desiccant canister is also available to aid in the removal of moisture inside the remote control console. The desiccant canister is reusable, in that after the pack changes from blue to pink the absorption capacity has been reached. To reactivate the desiccant, heat it in a 300° oven for three hours or in a 900-watt microwave oven in three minute intervals until silica gel color returns to blue. The desiccant canister should be placed in a suitable location inside the remote control console, at least two inches from the heater (if equipped) and not in contact with any electrical components.

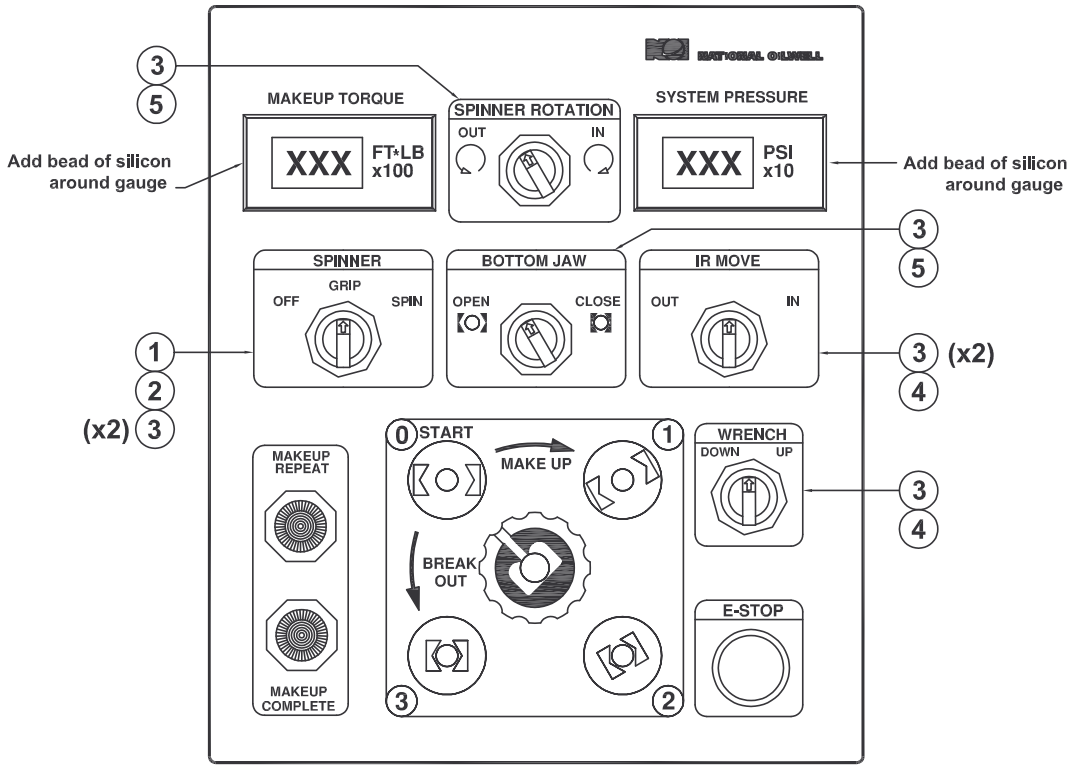
Please see the illustrations below for more information pertaining to your specific remote control console. Use the bill of material below the illustration that closely resembles your remote control console to order parts. As mentioned above, some late model Iron Roughneck remote control consoles already have the new gray wing lever knob switches installed. If this is your case,

please order only the desiccant pack and silicon if needed. Contact your local National Oilwell Varco Parts Center for ordering parts.

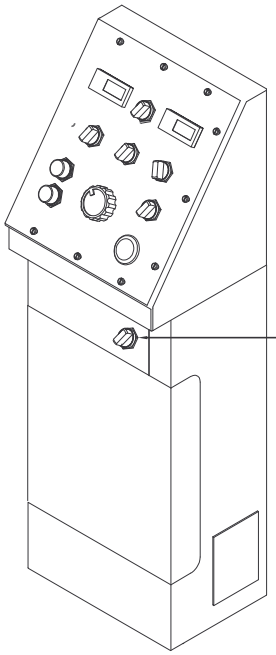
For customers who own and operate several different model Iron Roughnecks, please ensure that the remote control console that is shipped with the Iron Roughneck, remains with that particular serial number Iron Roughneck. If remote control consoles are mixed and matched with other model Iron Roughnecks, serious injury to rig personnel and/or damage may occur to both the Iron Roughneck and the remote control console. If there is any doubt, please contact your National Oilwell Varco Service Center.



Item Number	Part Number	Description	Quantity
1	0000-9659-20	Knob, Gray Wing Lever	1
2	0000-9657-79	Switch, 3 Postion Maintained, No Knob	1
3	0000-9643-66	Contact Block, 1NO-1NC	9
4	0000-9657-81	Switch, 3 Position Spring Returned, With Knob	2
5	0000-9657-80	Switch, 2 Position Maintained, With Knob	3
6	7803094	Desiccant Canister	1
7	7844170	Silicon Tube	1



Bill of Material			
Item Number	Part Number	Descrlptlon	Quantity
1	0000-9659-20	Knob, Gray Wing Lever	1
2	0000-9657-79	Swltch, 3 Postlon Maintalned, No Knob	1
3	0000-9643-66	Contact Block, 1NO-1NC	8
4	0000-9657-81	Switch, 3 Position Spring Returned, With Knob	2
5	0000-9657-80	Switch, 2 Position Maintained, With Knob	2
6	7803094	Desiccant Canister	1
7	7844170	Silicon Tube	1



DO NOT REPLACE THIS SWITCH WITH NEW WING LEVER TYPE. This applies only for units with Well Center / Mouse Hole switch located below panel face

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

IRON ROUGHNECK PRODUCT ENGINEERING

NUMBER: 06-07-1-IR
PRODUCT: IRON ROUGHNECK
SUBJECT: SPINNER & WRENCH UPGRADE

This bulletin applies to all National Oilwell Varco Iron Roughneck Models IR3080ARXXXX, IR30120ARXXXX, and 11000XX. The wrench upgrade does not apply to units equipped with the IR30120 wrench package.

There have been reports from the field of component failures within the spinner and wrench assemblies of the Iron Roughneck IR models. The spinner motors can become contaminated if not cleaned properly which can result in premature failure. Some jaw clamp cylinders of the wrench assembly have been identified with poor vendor quality control resulting in cracked welds at the cylinder end caps (this applies only to IR3080 wrenches, does not apply for IR30120 wrench). This condition may result in leaks during operation.

To improve the reliability of the Iron Roughneck, National Oilwell Varco is offering improved spinner motors that incorporate an upgraded shaft seal to protect against contamination ingress. A re-designed spinner roller assembly is available, which is an improved one-piece design that incorporates better seals to further protect the motor shaft against contamination, offering better life and lower cost than the previous design. The interior of the roller is filled with a grease purge, offering further protection against contamination ingress. National Oilwell Varco has also worked with the cylinder vendors and now offers an upgraded replacement cylinder that incorporates improved quality control measures and increased cylinder barrel integrity.

National Oilwell Varco is offering these upgrades for the spinner rollers, spinner motors, and jaw cylinders. These parts can be purchased under kit part number 1100373 and it is recommended that all upgrades be performed by a qualified National Oilwell Varco service engineer to ensure proper installation and operation. This upgrade kit will be available free of charge until October 31st, 2006. Please contact the National Oilwell Varco Service Center in Houston, Texas at +1 713-856-4128 for ordering information.

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

IRON ROUGHNECK PRODUCT ENGINEERING

NUMBER: 06-08-1-IR
PRODUCT: IRON ROUGHNECK
SUBJECT: WRENCH SHIMS

This bulletin applies to all National Oilwell Varco Iron Roughneck Models IR3080ARXXXX, IR30120ARXXXX, and 11000XX.

There have been reports from the field of component failures within the wrench housing, specifically with the jaw cylinders and the dies. The jaw cylinder can experience premature failure or short life span if not properly shimmed. The jaw cylinders come properly shimmed from the factory but over time can move out of proper alignment. When a jaw cylinder is loosely fit in the wrench housing, it creates improper loading of the cylinder. This also may cause the die to become a pivot point when clamped, which over time leads to failure or reduced life span of the dies.

To get the fullest life span of the jaw cylinders and the dies, the IR3080/IR30120 jaw cylinders must be checked for proper gap for normal operation. If more than 1/16" gap is observed, the cylinders must be shimmed. Shims must be added as necessary and may not be needed on every wear block, from top to bottom and left to right (see illustration 2 below). This depends on manufacturing tolerances from mating parts, as well as how the parts wear during normal operation. Shims may also need to be added when worn jaw cylinders have been replaced.

Check the cylinder gap once every month. The procedure for checking this is as follows:

1. Remove hydraulic power to the tool.
2. Release any stored hydraulic energy in the tool by actuating the Spin Wrench.
3. Remove the jaw cylinder from the wrench housing and clean both the cylinder and jaw housing thoroughly, removing all debris and drilling mud.
4. Apply grease to all sliding surfaces inside the wrench housing. BE SURE to add grease at the contact surfaces of the ball bushing and cylinder back plate. This lubrication procedure can also be found in the users' manual.
5. Install the cylinder without installing the cylinder back plate. Using both hands, push the cylinder all the way back up against the back of the wrench housing and check for any gap (see Illustration 1). If a shim can slide between the cylinder and the front wear block, remove the wear block and install the shim. More than one shim may be needed.
6. IT IS IMPORTANT that the cylinder be able to slide in and out of the housing by hand. Do not force shims if they cannot be installed, as this will cause irregular wear and may cause the cylinder to lodge itself permanently inside the housing.
7. Install the rest of the parts and return hydraulic power to the tool.
8. Operate the tool manually to ensure that the jaws function properly.

A kit of 20 shims can be purchased through NOV. Please contact your local NOV service center for ordering information. Kit part number 1100428 is for the IR3080 wrench and kit part number 1100429 is for the IR30120 wrench.

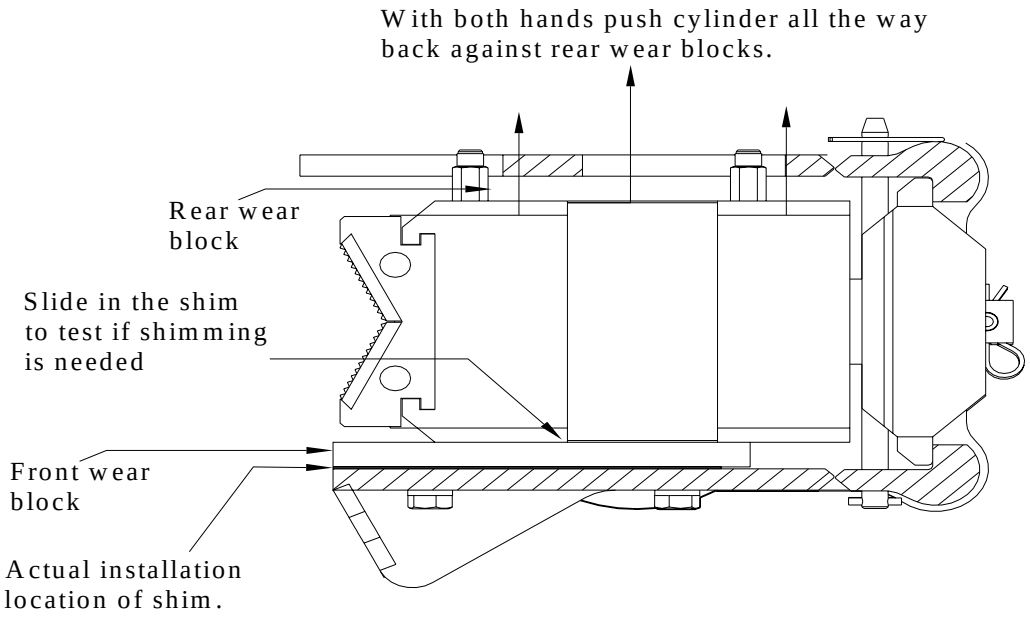


Illustration 1

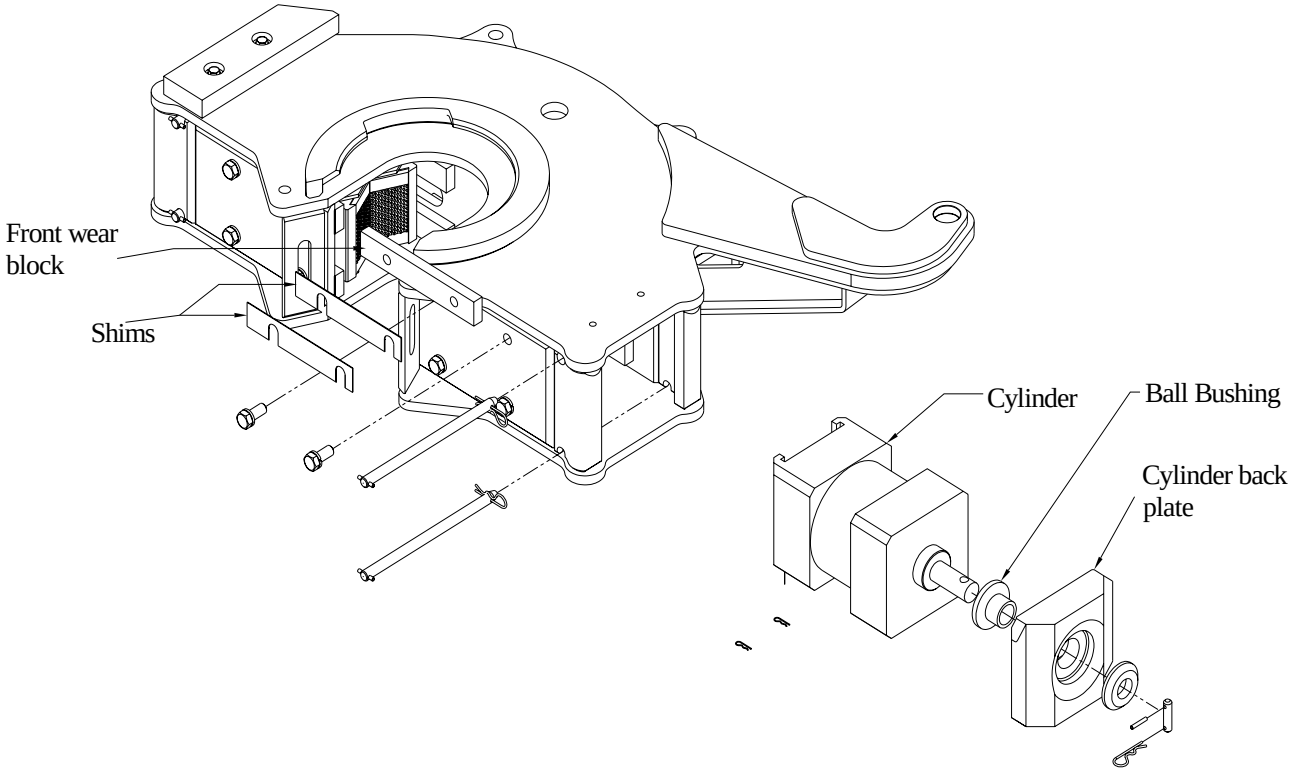


Illustration 2

This bulletin applies to National Oilwell Varco model E-3000 & M-3000 Drawworks manufactured prior to June 1, 2006.

The purpose of this bulletin is to resolve a potential problem with the E-3000 & M-3000 low drum drive shifter assembly. The low drum drive shifter operates to either engage or disengage the low drum drive. The shifter should spring engage the low drum drive.

In this bulletin, the term "low drum drive shifter" will be used. Note that operation manuals, part list drawings, and similar documentation may refer to the low drum drive shifter as:

- Catshaft Disconnect
- Catshaft Disconnect Clutch
- Low Drum Drive Countershaft Clutch and Cathead Shaft Disconnect

Verify that the low drum drive shifter is installed in spring-engaged (fail-safe) mode while in low gear. When the low drum drive is engaged, check the shifter pneumatic cylinder for air pressure. If the cylinder is not pressurized, then the low drum drive is spring engaged and nothing more is required. However, if the pneumatic cylinder is pressurized, then the shifter assembly is spring disengaged as shown in *figure 1* and needs to be reconfigured for fail-safe operation.

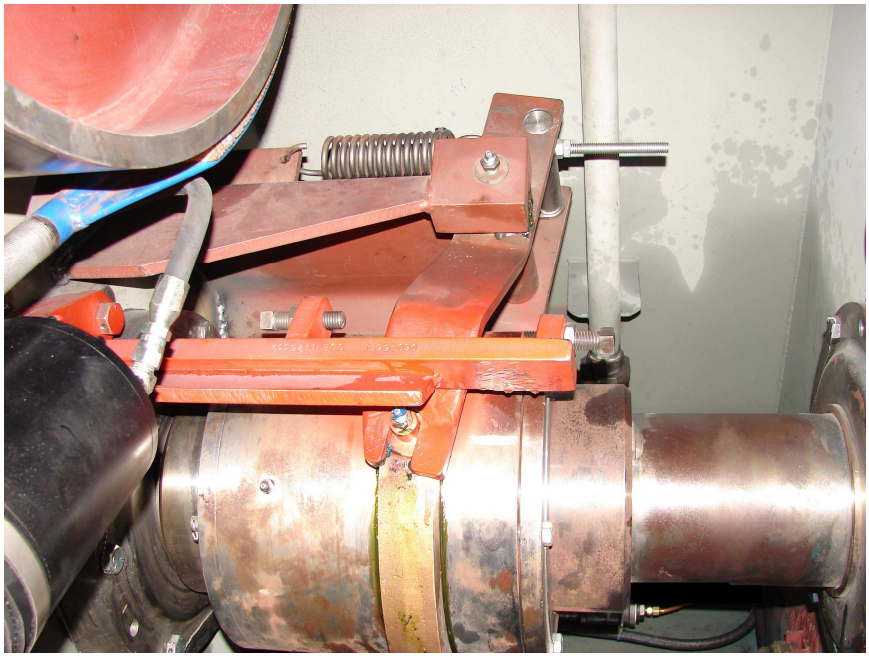


Figure 1: Low drum drive shifter - spring disengaged (not fail-safe)

In order for the low drum drive shifter to be fail-safe, the shifter should be configured such that the spring mechanically engages the low drum drive and the pneumatic cylinder disengages the drive.

Referring to *figure 2*, verify that the distance from the inboard wall to the pivot point of the shifter bracket is 15 $^{1}/_{16}$" +/- $^{1}/_{4}$" and the shifter sleeve is oriented with the long side toward the inboard wall. If the shifter bracket dimension and/or sleeve orientation differ from *figure 2*, contact National Oilwell Varco Service and Repair for assistance before attempting to reconfigure the shifter assembly.

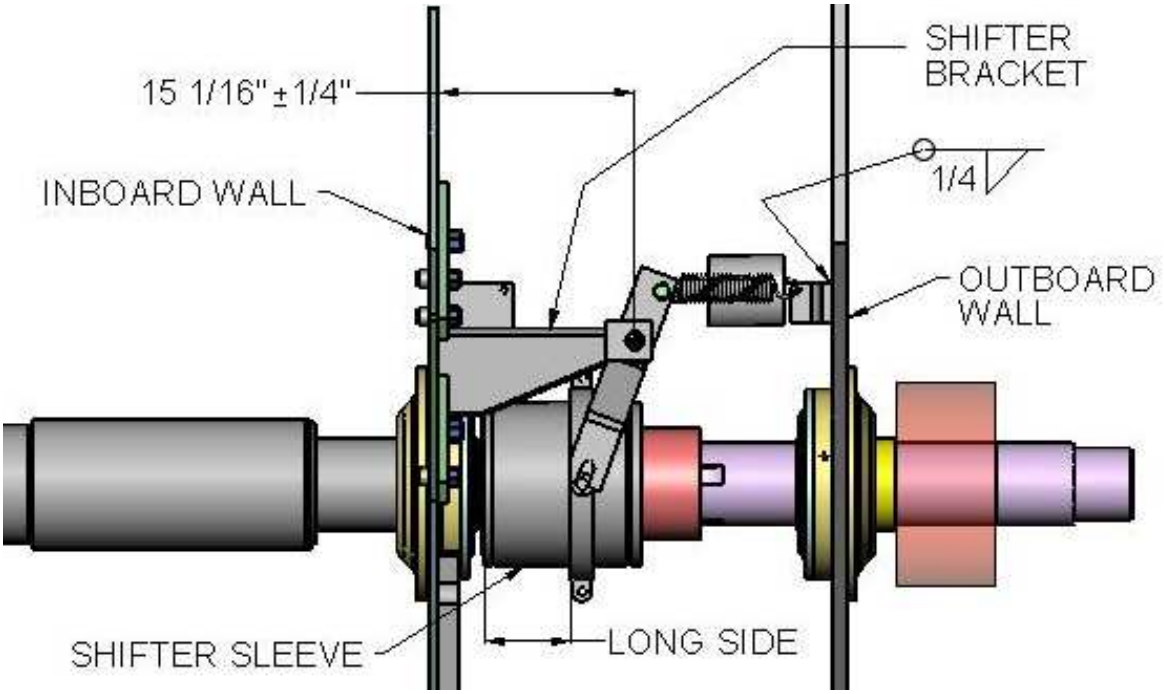


Figure 2: CAD illustration with shifter bracket dimension and sleeve orientation

To make the low drum drive shifter spring engaged, the cylinder and spring must be attached to the outboard wall with a mounting kit, P/N 656934, available from National Oilwell Varco. Note that the corner of the shifter fork needs to be beveled as shown in *figure 3* to provide clearance for the cylinder clevis.

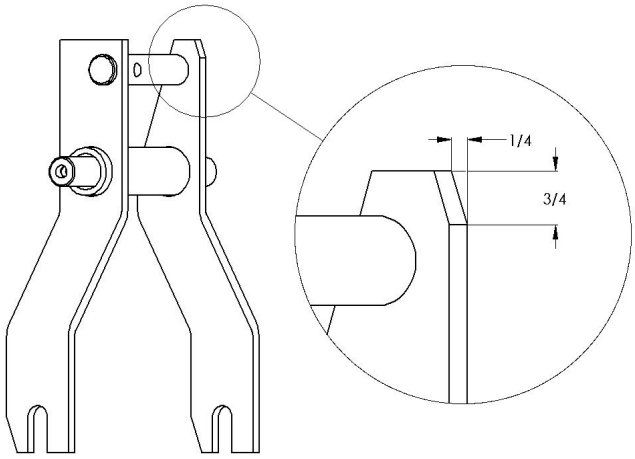


Figure 3: Shifter fork bevel dimensions

Align the cylinder and spring such that they are perpendicular to the outboard wall using the bracket and tap pad provided with the mounting kit. Once located, weld ($^{1}/_{4}$" fillet all around) the tap pad as shown in *figure 2*. Bolt the mounting bracket to the tap pad and attach the cylinder and spring to the mounting bracket. Verify that the spring engages the drive and the cylinder disengages the drive. Refer to *figure 4* for the low drum drive shifter assembly after reconfiguration.

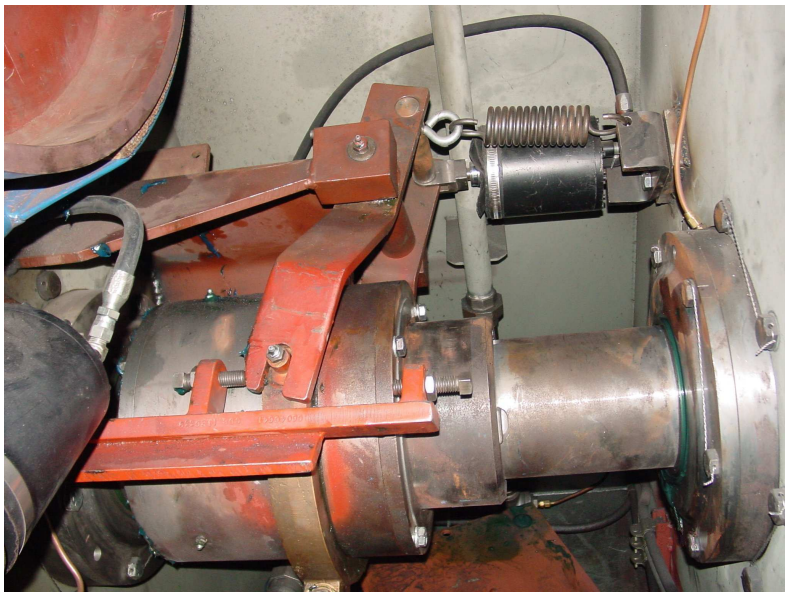


Figure 4: Low drum drive shifter - spring engaged (fail-safe)

NOTE: When correctly configured, the low drum drive shifter will be disengaged with air applied to the pneumatic cylinder and engaged when air is **not** applied to the cylinder. The valve at the driller's control panel will operate accordingly.

Install the name plate included in the mounting kit, P/N 656934, onto standard E-3000 & M-3000 drawworks control panels. Grind off existing lettering for the low drum drive shifter valve and install name plate between valve and control panel using the existing screws, nuts, and washers. Standard control panel lettering and new name plate shown in *figure 5*.

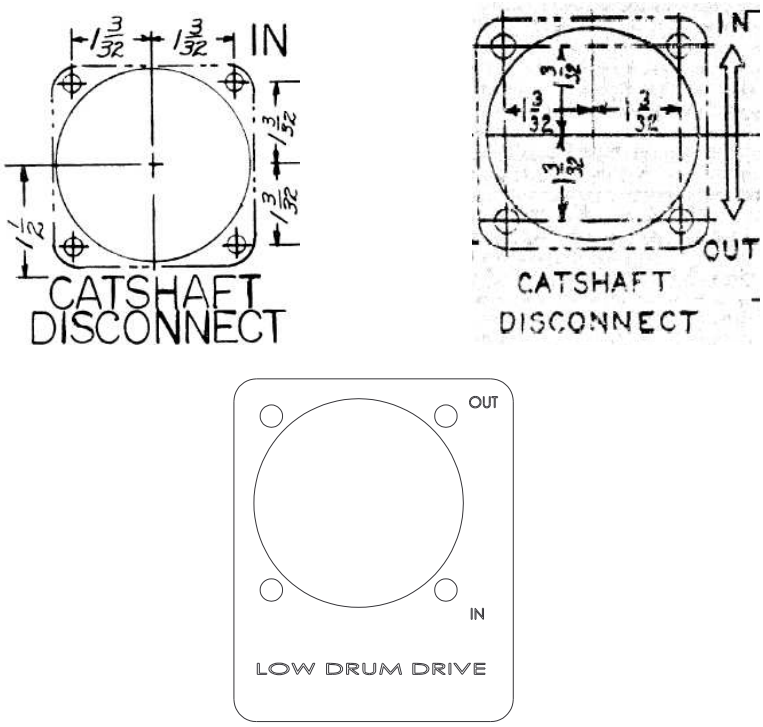


Figure 5: Standard E-3000 and M-3000 valve lettering (TOP) and new name panel label (BOTTOM)

FAILURE TO PERFORM THIS CORRECTIVE PROCEDURE COULD RESULT IN SPRING DISENGAGEMENT OF LOW DRIVE DUE TO LOSS OF PNEUMATIC CYLINDER AIR PRESSURE.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DEATH, BODILY INJURY, OR PROPERTY DAMAGE.

Contact NOV Service and Repair for further assistance at (713) 856-4128.

NATIONAL OILWELL VARCO

SAFETY ALERT

Release

Product Bulletin No.: TDS-07-05
Top Drive Drilling Systems

Date: August 23, 2007

Subject: Incident Involving Grabs Dies

Product: PS-350/500, PS-500A, PS-500/500, PS2-500/500, PS2-500A, PS2-650/650, PS2-650/750 Model Top Drive Drilling Systems

Affected Assemblies: Grabs Assembly

Objective: Advise Customers of Recent Grabs Die Incident

Issue: A potential hazard exists with the Grabs Die Assembly used on the PS and PS2 Series Top Drives. The **Reducing Dies, (P/N 7803061)** are retained within the **Die Block (P/N 2031161)** by **Die Retainer (P/N 2031448)** placed above and below the die tong. **Socket Head Set Screws (P/N 2031449)** is then used to secure each die retainer into place. The set screw also serves as a fuse in the event the weight of the drill string is applied to the pipe grabs. The brass set screws are designed to shear before damage to the Pipe Handler can occur. If the set screws shear, the die retainer and reducing dies will fall to the floor. Serious personal injury or death could result if this occurs.

Solution: Operators should perform daily visual inspections of the Grabs Die Assembly for any signs of abnormal wear or potential failure. Visual inspections should also be carried out after any jarring or other severe loading conditions are seen by the Top Drive. Operators are also reminded to refer to previous NOV Product Information Bulletins or Safety Alerts for additional information regarding safe operation, maintenance, and inspection criteria.

NOV will provide additional advice and guidance concerning this matter as it becomes available.

Failure to follow these recommendations may result in death, bodily injury or property damage.

Please contact your local National Oilwell Varco (NOV) Service Center if there are any questions regarding this safety alert.

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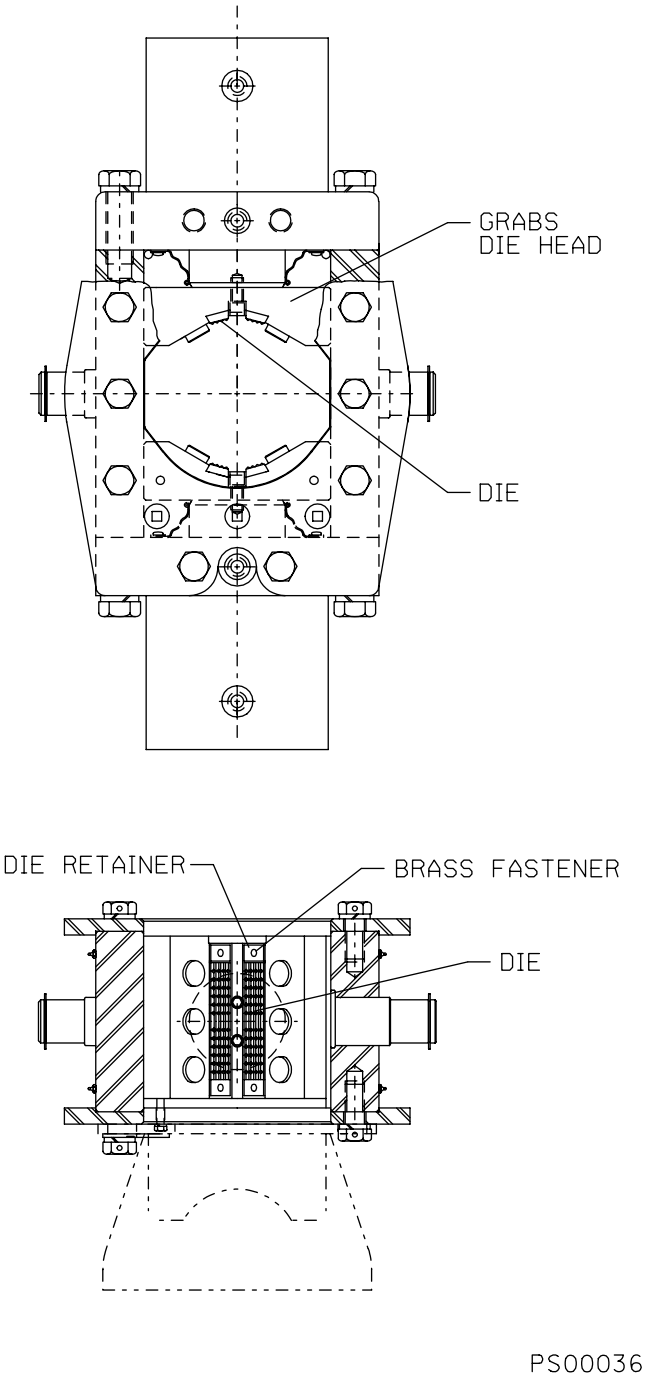


Figure 1

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NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN

NUMBER: **07-10-01-D**
PRODUCT: **AHD & SSGD Drawworks**

SUBJECT: **Door and Cover Hinges**

The purpose of this bulletin is notify end users of AHD and SSGD Drawworks of the necessity for regular maintenance of the hinges on the doors of these drawworks. These drawworks are equipped with weld on/lift off hinges on all doors. These hinges must be properly lubricated on a regular basis (i.e. weekly or biweekly depending on use or storage) to prevent seizing of the hinge pins. This is especially important if these doors are not used on a regular basis, as can happen if the drawworks is stored outside for an extended period of time.



CAUTION: If these hinges become seized, the door should be restrained to prevent falling before attempting to free the hinges. These doors are large and heavy, it is possible to apply excessive torque to a seized hinge which can shear off the hinge pin. Failure to adequately restrain the doors prior to attempting to free seized hinges may result in personal injury or property damage.

Please contact your local National-Oilwell representative if you have any questions or require further information with respect to this matter.

NATIONAL OILWELL VARCO

PRODUCT INFORMATION BULLETIN
NUMBER: 07-10-02-D
SUBJECT: DISC BRAKE CONTROLS
DATE: 10/16/2007

PROCEDURE FOR RELEASING STICKING DISC BRAKE SERVICE CALIPERS CAUSED BY CONTAMINATION IN THE HYDRAULIC SYSTEM
Reference: NOV 0000-9670-83 DISC BRAKE MANIFOLD (HYDAC CARTRIDGE VALVES) USED ON JC50D DRAWWORKS (IDEAL RIG)

This product information bulletin describes the procedure to be used to release sticking service calipers.

This procedure should be followed when proportional valve sticks or has to be changed out during drilling operations:

- When Driller notices that either the drillers side (DS) or off drillers side (ODS) brake calipers will not release, hold the brake handle forward for 30 seconds to 1 minute to see if the bake calipers release.
- Set and release the brakes several times using the joystick to try to free stuck proportional valve.
- If still stuck set and release the park brake several times.
- Notify Tool pusher of situation.
- At this point conditions have to be understood before proceeding.
- With the load being supported by the brakes, before any work can be seriously considered, the load must be secured.
- If the block is in a position that it can be hung off in the derrick, secure block only if slips are set and the hook load is only the block and or Top Drive.
- Set the emergency Park brake.
- At this time have all personnel clear of the drill floor as a safety precaution.
- Prior to commencing the following steps ensure all personnel are clear regarding their responsibilities.
-

1. Set the slips, the slips may not set as the brakes cannot release at this time, but if release does happen the slips will support the load.
2. The condition of the emergency calipers must be checked before relying on them to hold the block and top drive if equipped so.
3. Release the park brake and check the pad clearance of the emergency calipers. If clearance is over 1/8th of inch, adjust them to 1/32nd or less. You can use a calling card for quick reference this approx. a little more than .010”.

- Set the Electric brake to Trip and apply full brake.
- Have (1) employee at the Brake panel at the draw works and the driller at the console. Have (1) person that is in direct contact with the driller watching either the drill line drum. Make sure they understand there responsibilities.
    - Employee at Brake panel, isolate the supply pressure by closing the ball valve located on the right side of the panel attached to the pressure filter, open the bypass valve located in the bottom center of

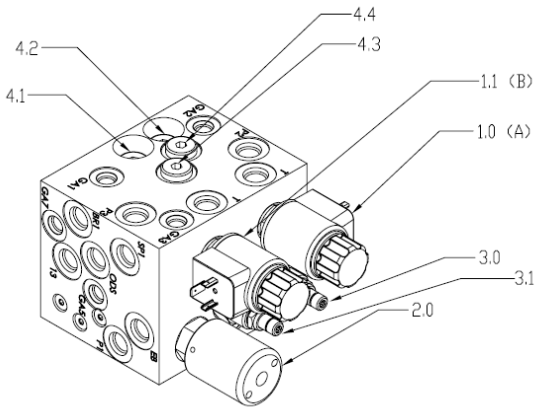
the cabinet slowly for about a half to ¾ turn. Bleed the hydraulic pressure from the accumulators. When the DS & ODS supply pressure gauges read zero remove the cartridge proportional valve from the manifold that is holding the service calipers on. See picture below.

Disconnect the electrical connection by removing the screw that holds the Din plug to the coil.

Note: cartridge 1.0 is ODS and 1.1 is DS.

Caution: Remove cartridge slowly as there maybe some pressure trapped between the valve and the caliper.

Replace with a clean or new cartridge NOV part no. 0000-9667-90 and reconnect electrical connection.



- With the driller commanding the service calipers to be on by releasing the joystick, close by-pass valve and open ball valve. Pressure will be present on the service calipers because in park-brake mode all brakes are on.
- Release the park-brake valve and have the driller attempt to release the brakes with the joystick. Note: the slips are still set, slack off slowly. If the brakes release properly.
- Return to Normal drilling operations

AT NO TIME SHALL THIS PROCEDURE BE PERFORMED WHILE HOLDING THE STRING WEIGHT. ONLY THE BLOCK / TOP DRIVE COMBO TO BE SUPPORTED BY THE EMERGENCY BRAKES DURING THIS PROCEDURE. EXTREME CAUTION SHOULD BE TAKEN AT ALL TIMES WHILE THIS PROCEDURE IS FOLLOWED. FAILURE TO FOLLOW THIS PROCEDURE MAY RESULT IN DEATH, BODILY INJURY OR PROPERTY DAMAGE. CONTACT YOUR LOCAL NATIONAL OILWELL VARCO SERVICE CENTER IF YOU HAVE ANY QUESTIONS REGARDING THIS BULLETIN.

NATIONAL OILWELL VARCO

TOP DRIVE PRODUCT ENGINEERING

PRODUCT INFORMATION BULLETIN

NUMBER: 05-07-01-PS, REV A
PRODUCT: PS-Series Top Drives
SUBJECT: Drive Stem Wear Plate, 4” ID

This bulletin applies to National Oilwell Varco brand Top Drive models PS2-650/650, PS2-650/750, & PS2-750A with a 4” ID Drive Stem bore.

An expendable wear plate has been developed to facilitate repairs of damaged stems due to mud erosion on the top surface of the drive stem where the washpipe o-ring seals.

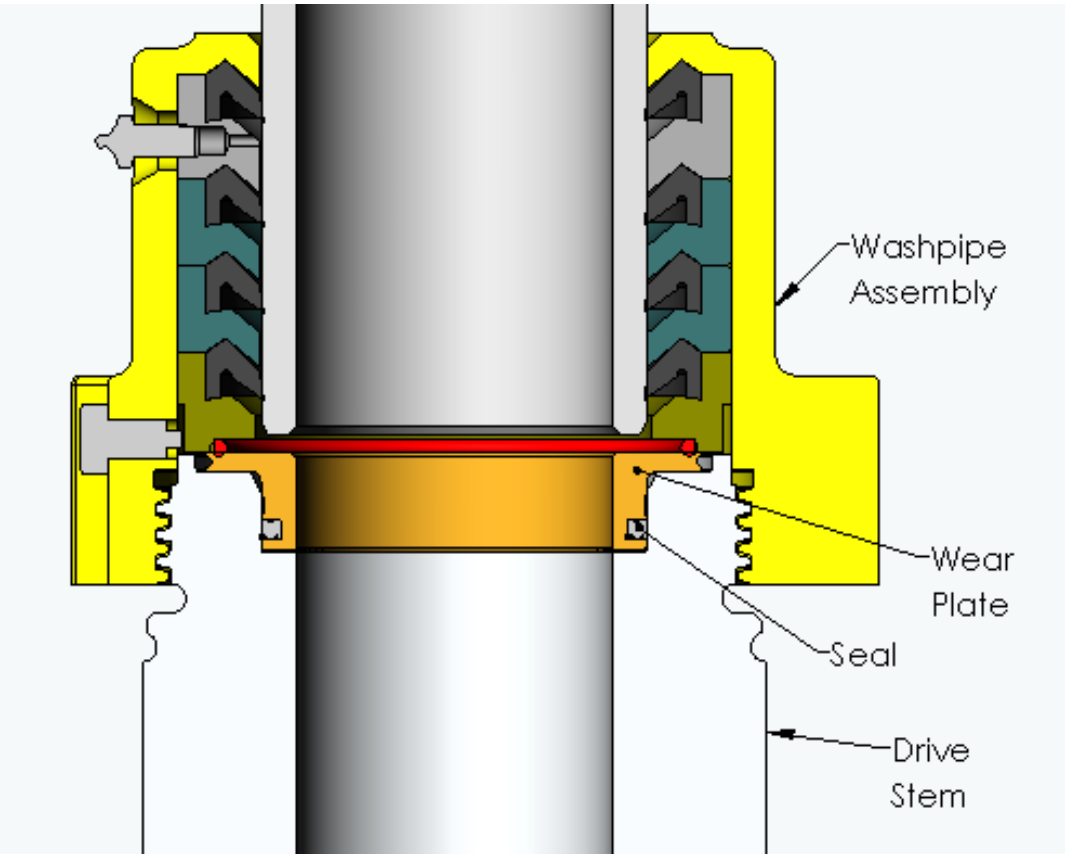
In order to install the wear plate, a counterbore must be machined into the drive stem. Refer to NOV drawing X20-1824 for counterbore machining details applicable to your drive stem. Refer to the Top Drive parts list book to verify your drive stem part number. The drive stem will need to be removed and sent to a machine shop for modification. Drive stem removal requires major disassembly of the top drive. Contact NOV for assistance.

Alternatively, customers can employ an onsite machining company, such as Furmanite America, to perform the counterbore machining in-place on rig site. Removal of IBOP Stack, Washpipe, Gooseneck, and L-Pipe is required. Preparation assistance may also be required.

For the PS2-650/650 and the PS2-650/750, if the drive stem is damaged beyond repair, or has been previously skim cut a total of more than 0.030”, a replacement assembly (p/n 2037704-BSC), which includes the drive stem with counterbore (p/n 2037666), 4” ID wear plate (p/n 2037665), and wear plate seal (p/n 7918884), may be ordered.

For the PS2-750A, if the drive stem is similarly damaged beyond repair or skim cut a total of .030 or more, a replacement assembly (P/N 2037704-501) which includes drive stem with counterbore (P/N 2034733), 4” ID wear plate (P/N 2037665), and wear plate seal (P/N 7918884) may be ordered.

For those using a 4” ID to 3” ID conversion washpipe, a 3” ID wear plate (p/n 2037664) is also available. This wear plate transitions from 3” ID at the washpipe seal face to 4” ID at the bottom of the counterbore.


Washpipe
Assembly
Wear
Plate
Seal
Drive
Stem

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Telefax: +47 38 19 23 11
E-mail: technical.support.norway@nov.com

Issued date: 21.02.2007
Prepared by: HEL
Approved by: BAA

PRODUCT INFORMATION BULLETIN

NUMBER: **72042728**
PRODUCT: **D1122**
SUBJECT: **Product Information Bulletin - Shear pin modification**

SAFETY WARNINGS

Shear pin modification.

Following modification to be performed on BR.

1. Safety wire to be replaced with safety chain accordance with picture below.
2. Remove shear pin and bushing.
3. Modify shear pin ref. dwg. D1122-01048: hole Ø24, 15mm depth (Use modified bushing (delivered from NOV) for correct alignment.
4. Install new bushing “dwg. D1122-01049” and modified shear pin “dwg. D1122-01048”.
5. All bolts to be secured with 1mm stainless wire.

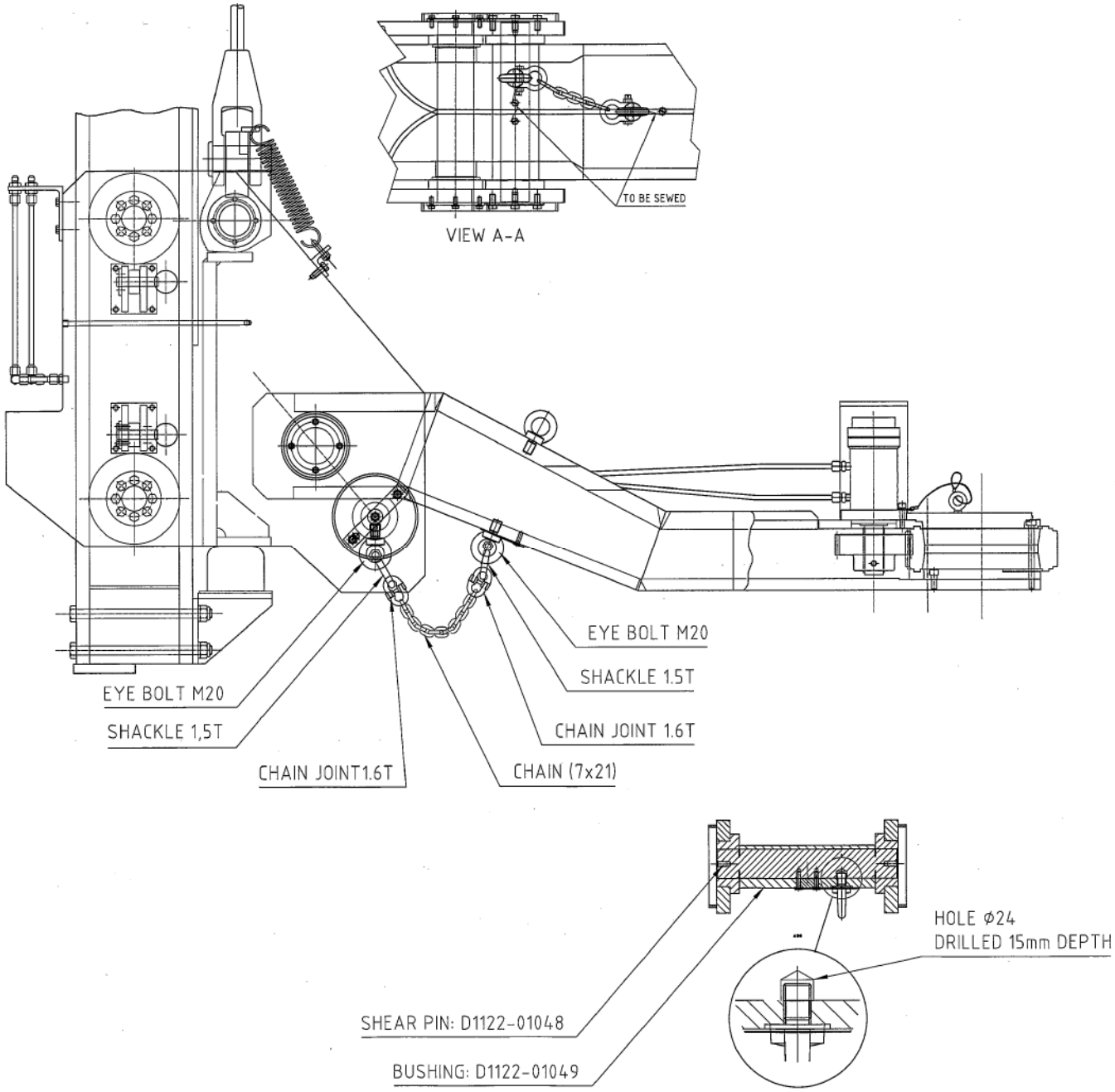
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PRODUCT INFORMATION BULLETIN

NUMBER: 72042728
PRODUCT: D1122
SUBJECT: Product Information Bulletin - Shear pin modification

Issued date: 21.02.2007
Prepared by: HEL
Approved by: BAA



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PRODUCT INFORMATION BULLETIN
NUMBER: **72042728**
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Safety chain.

Replace 2mm safety wire with new safety chain assembly.
This assembly consist of:
1. 2 pcs. Shackle 1.5T. (Item 60066)
2. 2 pcs. Chain joint 1.6T. (Item 43617)
3. 1 pcs. Chain 7x21 (Item 45778)
4. 1 pcs Eyebolt M20 (item 24279)

Adapting shear pin bushing.

Install the new shear pin bushing and lower the lifting arm so it resting at the shear pin contact surface, use a feeler gauge to measure if there is any clearance between the two contact surfaces. If clearance, remove material by use of a grinding machine from the opposite side of shear pin tube until there is contact on both sides.

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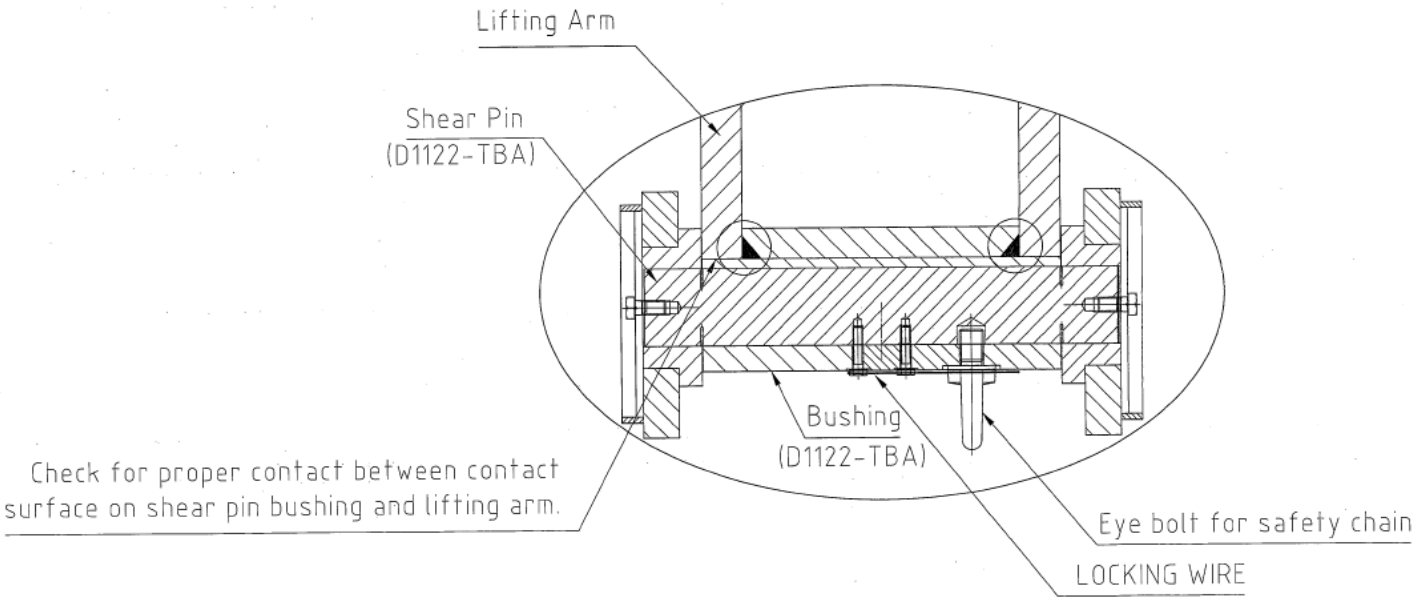
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Fasten shear pin to vertical trolley.

Move shear pin until it stops against the lock plate and torque up bolt.
Install lock plate and torque up bolt on opposite side.

The shear pin bushing is locked for rotation by use of the same two bolts which is used for the safety line bracket. Adjust (rotate) shear pin bushing to correct position and torque up bolts.



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Issued date: 11.02.2008
Prepared by: ANRF
Approved by: KJG

PRODUCT INFORMATION BULLETIN

NUMBER: **73933317**
PRODUCT: **HYDRATONG**
SUBJECT: **HYDRATONG User Manual**

INFORMATION

CONTENT:

1. **PURPOSE**
2. **CAUSE**
3. **ACTION**
4. **DOCUMENTATION**

1. PURPOSE:

The purpose of this Bulletin is to inform NOV's Customers that we have discovered an omission in some of our HydraTong user manuals. At the same time we wish to reinforce the importance that these procedures are followed by all of our customers including those not affected by the omission.

2. CAUSE:

After investigations into the cause of damage to the HydraTong's torque wrench guide system, the omission was discovered. It appears that the root cause of the damage can be traced to hydraulic oil contaminated with particulate. However had these simple checks been carried out the incident that caused the damage should not have occurred. The realization of the need for ensuring that this, & all preventative maintenance procedure be strictly followed came shortly after.

3. ACTION

NOV' User Manual dept. is currently checking all HydraTong User manuals issued to ensure that any omissions are rectified asap. We also urge all our customers to pay heed to these instructions hi-lighted in red below to ensure that clearance is maintained in the guide ring system during make up & break out sequences. This is important in reducing the risk of damage to the equipment & at the same time ensuring that the appropriate torque is applied to the tool joint.

4. DOCUMENTATION

The following is an excerpt from our HydraTong user manual, & if not received already, the appropriate revisions should be issued shortly.

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Prepared by: ANRF
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Daily Inspections

- Ask the operator if any abnormalities have been observed. All such observations must be logged for follow-up.
- Check that the HT is clean. Sensors like proximity switches may stop functioning properly if excessively covered by mud or sea spray.
- Check the pop-up indicator of the hydraulic pressure filter (at the derrick loop bracket). If the indicator plunger has popped up (red colour shown), the filter element is clogged and must be changed. See separate procedure. Clean oil is important for trouble-free HT operation!
- Tool frame: Inspect the dies and die holders for wear and damage. Excessively worn, broken or missing dies must be replaced.
- Tool frame: Using the local controls, open and close the lower torque wrench clamp a couple of times without a pipe in the clamp, and check visually that the clamp's jaws are synchronised. All three jaws shall meet at the centre at the same time. If the jaws are not synchronised, contact supplier as soon as possible!
- Tool frame: Open and close the upper torque wrench clamp a couple of times without a pipe in the clamp, and check visually that the clamp's jaws are synchronised. All three jaws shall meet at the centre at the same time. If the jaws are not synchronised, contact supplier as soon as possible!
- Tool frame: Open and close the spinner clamp a couple of times without a pipe in the clamp, and check visually that the spinner rollers' closing operation is synchronised. The rollers shall meet at the centre at the same time. Contact supplier if the jaws are not synchronised.
- Tool frame: Check (hand feel) that the lock nut at the rod end of the two torque cylinders is tight. The end of each rod is threaded, and the nut is tightened against the eye at the outer end. The stroke of the cylinder is adjustable by adjusting the eye, and it is important that the eye remains at the initial and correct position. If a lock nut is loose, it must be tightened, and supplier must be contacted for advice.
- Pipe doper: Open the doors of the doper cabinet and inspect the inside. Verify that the cabinet heating is functioning and that no suspicious noise or leaks are observed. More details in the Pipe Doper Maintenance section.

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- Pipe doper: At the doper cabinet, verify that there is enough oil in the water pump oil cup (on top of the pump), and that the water pump oil sludge cup (below the pump) is not full.
- Pipe doper: At the doper cabinet, verify that there is enough oil in the air lubricator upstream of the doper pump.

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Issued date: 18.07.2008
Prepared by: KJG
Approved by: AAH

PRODUCT INFORMATION BULLETIN

NUMBER: **74201429**
PRODUCT:
SUBJECT: **HydraTong**
Length transmitter, spinner position

INFORMATION

CONTENT:

1. **PURPOSE**
2. **CAUSE**
3. **ACTION**
4. **DOCUMENTATION**

1. PURPOSE:

The purpose of this Bulletin is to inform NOV's Customers that some length transmitters and/or support bracket for the length transmitter providing the vertical spinner position on some of our HydraTongs are not correctly configured.

2. CAUSE:

After investigation into the cause of damage to some length transmitters, this issue was discovered. This incorrect configuration can lead to wire rope to tranmitter angles greater than the recommended 3 degrees, and this may reduce the service life of the transmitter.

3. ACTION

To achieve maximum service life of the transmitter, it is important that the configuration & position of the length transmitter and the support bracket is checked and adjusted if not found appropriate.

4. DOCUMENTATION

The following figures showing incorrect and correct configuration for the length transmitter:

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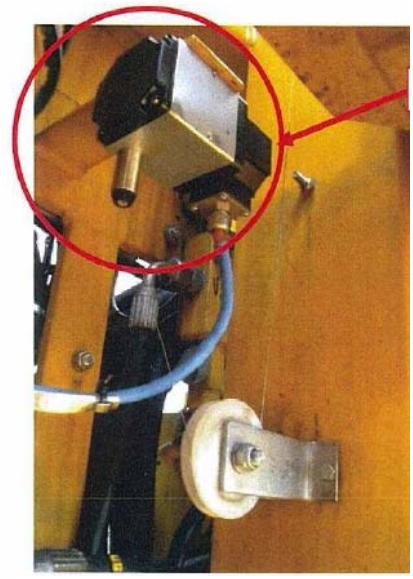
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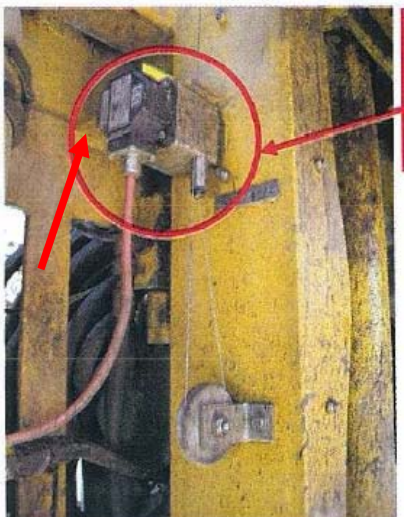
Issued date: 18.07.2008
Prepared by: KJG
Approved by: AAH

PRODUCT INFORMATION BULLETIN

NUMBER: **74201429**
PRODUCT:
SUBJECT: **HydraTong**
Length transmitter, spinner position



Incorrect arrangement of transmitter



Transmitter Support bracket installed incorrect



Correct arrangement of length transmitter and placement of transmitter support bracket.



Angles greater than 3° may reduce the service life of the transmitter.

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PRODUCT INFORMATION BULLETIN

NUMBER: **74336058**
PRODUCT: **D1122 Bridge Racker**
SUBJECT: **Guide Sheave Standlift, dropped roller**

Issued date: 24.11.2008
Prepared by:
Approved by:

WARNINGS

Product: Bridge Racker with standlift cylinder in Derrick
Subject: Guide sheave, standlift

SAFETY- DROPPED OBJECT

1. PURPOSE:

To inform operators of all Bridge Racker about possible risk of dropped objects.

2. CAUSE:

On one of the NOV delivered Bridge Rackers, one of the rollers (stud type track roller) mounted on the standlift guide sheave came loose and dropped down to the drillfloor. (Pos M02 on; D1122-A0079, D-A1-1122-A41, D1122-A0161 or D1122-A0174)

3. ACTION

Existing ordinary nuts is mounted without secondary retention and is to be replaced with new lock nuts type: All metal Hex. Lock Nut DIN 980.
(Pos M08 on; D1122-A0079 or D-A1-1122-A41 or D1122-A0161 or D1122-A0174)

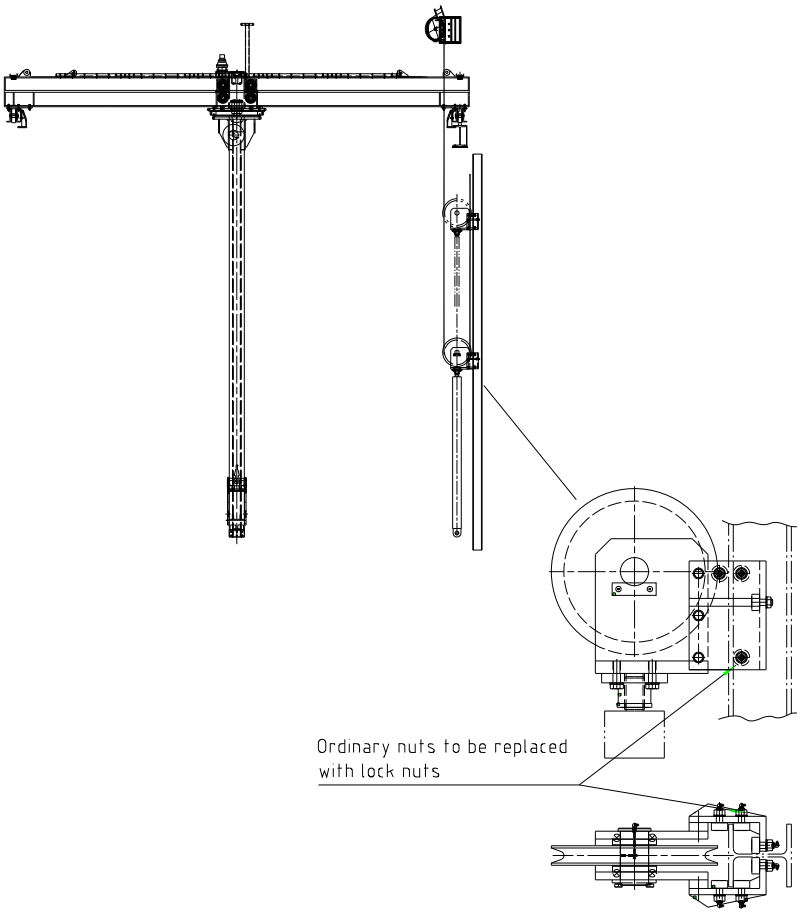
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PRODUCT INFORMATION BULLETIN

NUMBER: 74336058
PRODUCT: D1122 Bridge Racker
SUBJECT: Guide Sheave Standlift, dropped roller

Issued date: 24.11.2008
Prepared by:
Approved by:



New parts:

8 PCS of Item NO 173217 LOCK NUT, M20 x 1,5

4. DOCUMENTATION
Make this safety alert available to all operators of the actual equipment. Please confirm receipt of this letter as soon as possible so that we can be certain that you have received this information.

Corrective actions:

NOV will supply new parts. Contact your focal point of contact at NOV-AM Norway for ordering.