MCCOY | DRILLING & COMPLETIONS
MOVING GLOBAL ENERGY FORWARD

SALES ORDER

SUPERIOR MANUFACTURING

4225 HWY 90 EAST
BROUSSARD LA 70518
(337) 837-8847

Customer No.: DIAMOND O/S

Order No.: 62369

Bill To: **DIAMOND OFFSHORE**
P.O. BOX 4558
HOUSTON, TX 77210

Ship To: **DIAMOND OFFSHORE**
6501 FREETOWN ROAD
NEW IBERIA, LA 70560

Date	Ship Via	F.O.B.	Terms	32972
08/22/13	OUR TRUCK	Origin	Net 30	MAR 13

Purchase Order Number	Required Date	Sales Person	Our Order Number
099-033168W	08/22/13	HYDRAULICS - MICHAEL COATES	62369

Quantity Required	Quantity Shipped	Quantity B.O.	Item Number	Description	Unit Price	Amount
				REBUILD OF VARCO PH60 PIPE HANDLER DO#43186-OCEAN SUMMIT		
1.000				LABOR TO REPAIR PH60 PIPE HANDER	20100.00	20100.00
1				PARTS TO REBUILD PH60 PIPE HANDLER	13400.00	13400.00
2				PH60 DATABOOK	0.00	0.00
1				REPLACE CLAMP BODY	12701.85	12701.85
				WO# 041434 CM:417-070968 FR099-003168		
				Order subtotal		46201.85
				Order total		46201.85

DIAMOND OFFSHORE
CENTRAL WAREHOUSE
RECEIVED SUBJECT TO INTERNAL INSPECTION
RIG: O. SUMMIT
PO#: 099-033168 W
DATE: 23-AUGUST-2013
BY: Jack Linor

*** WE APPRECIATE YOUR BUSINESS ***

This order is subject to the Terms and Conditions of Superior Manufacturing & Hydraulics that can be located at http:/www.mccoyglobal.com/tcs.pdf. Purchaser acknowledges that those Terms and Conditions will control and take precedence as to any contrary term or unless agreed to in writing by a duly authorized officer of Superior Manufacturing & Hydraulics.

SIGNATURE

DATE

DELIVERY TICKET

SUPERIOR MANUFACTURING & HYDRAULICS

4225 HIGHWAY 90 EAST
BROUSSARD LOUISIANA 70518

DT 35630

SOLD TO: _____

SHIP TO: Diamond Os

ORDERED BY: _____

TAG FOR Ocean Summit

CUSTOMER ORDER NO. 099-033168W

SHIP VIA OT

DATE ENTERED _____ DATE SHIPPED _____ INVOICE DATE _____ TERMS: Net 30 days

TERRITORY	HOW ORDERED	NO. OF INVOICE	TYPE	WRITTEN BY	FILLED BY	COLL.	PPD.	C.O.D.	REQ. SHIPPING DATE

ORD'D	QUANTITY PREV. SHIP	QUANTITY THIS SHIP	B.O.	DESCRIPTION	UNIT PRICE	AMOUNT
		1		PH60 DCA 43186		
		1		500 ton Lifting Rod		
				WO# 041434		
				Replaced Lifting Rod with		
				correct size		

DIAMOND OFFSHORE
~~CENTRAL WAREHOUSE~~
RECEIVED SUBJECT TO INTERNAL INSPECTION
RIG: Ocean Summit
PO#: 099-033168W
DATE: 2/14/2013
BY: Jack Simon

MSDE. SUB-TOTAL

"STATE" SALES TAX "CITY"

FRT. CHGS.

PAY THIS AMOUNT

White Copy - Original
Yellow Copy - Customer
Pink Copy - Packing List
Goldenrod Copy - Files

DIAMOND OFFSHORE

RIG: OCEAN SUMMIT

EQUIPMENT: VARCO PIPE HANDLER

PART NUMBER: PH60

S/N: DO# 43186

PO# 099-033168W

SUPERIOR JOB NUMBER: 041434

MCCOY

TO: Diamond O/S

June 19, 2013 Quote# 1193

Attn: Charley Breedlove

cc: M. Coates

Rig: Ocean Summit

SUBJECT: Varco PH60 Pipe Handler,
WO# 041434

Superior Manufacturing & Hydraulics, Inc. respectfully submits the following estimate for your consideration regarding the unit described above:

This unit will be sandblasted and all welds inspected for cracks using wet mag techniques, completely disassembled and evaluated. The following are our recommendations to rebuild this unit to nearly new condition:

Item #1 Clamp Cylinder

Cylinder seal surface pitted beyond repair

Option 1

Remanufactured clamp cylinder supplied by McCoy $12,701.85

Or

Option 2

Diamond o/s to supply clamp cylinder.

Item #2

Torque Cylinder #1
Hone barrel
Replace rod
Replace piston
Replace gland
Rework gland retainer plate reuse
Replace tie rods
Replace nylocks
Rework end plates reuse
Replace Shcs
Tap Bolts holes
Replace all seals & packing
Rework trunions

Reassemble & test

Item #3

Torque Cylinder#2
Hone barrel
Replace rod
Replace gland
Replace piston
Rework trunions
Replace tie rods
Replace nylocks
Rework gland retainer plate reuse
Replace all seals
Replace shcs
Rework end plates reuse
Replace bushing in rod eye

Reassemble & test

Item #4 Lift Cylinder
Hone Barrel
Tap Bolt holes
Replace rod clevis
Replace piston
Replace gland
Rework gland retainer plate reuse
Replace tie rods
Replace nylocks
Replace seals
Rework end plates reuse
Replace rod

Reassemble & test

Item #5 Air Cylinder #1
Hone barrel
Replace rod
Replace piston
Rework gland reuse
Rework rod eye reuse
Replace all seals
Rework threads on barrel and gland

Reassemble & test

Item #6 Air Cylinder #2
Hone barrel
Replace rod
Replace piston
Rework gland reuse
Replace all seals
Rework rod eye reuse
Rework threads on barrel and gland

Reassemble & test

Item #7 Relief Manifold
Replace valve cartridges
Replace Torque gauge
Replace check valves
Replace seals
Rework block reuse
Reassemble, adjust valve settings to OEM specifications & test

Item #8 Diverter Valve
Replace check valve
Replace orings
Rework detent fitting
Replace spool

Reassemble & test

Item #9 Torque Tube
Rework spline chamfers
Line bore pin holes; install bushings
Rework worn areas, machine to size
Rework bolt holes

Item #10 Pipe Guide
Replace with new 7 ¾"

Item #11 Safety Actuator Arms
Rework worn surfaces and machine to size
Replace cam followers
Rework pin holes; install bushings

Item #12 Safety Arm Mounting Bracket
Rework worn surfaces and machine to size
Rework bolt holes

Item #13 Die Holders
Replace die holders
Replace dies
Replace die clips

Item #14 Air Cylinder Mounting Bracket
Rework pin holes; install bushings

Item #15 Torque tube stabilizer
Rework worn areas and machine to size
Rework bolt holes
Replace stabilizer springs

Item #16 Stop Tubes
Replace long stop tubes
Rework short stop tubes

Item #17 Miscellaneous:
Replace grease zerts
Replace safety wire
Replace 3-way air valves
Replace air exhaust
Replace all stainless steel pins
Replace quick dissconnects
Replace all hoses & spring guards
Replace assorted nuts, bolts, fittings, cotter pins, etc.

Item #18 Body:
Rework bolt holes
Line bore pin holes; install bushings
Rework worn areas and machine to size

Item #19 Frame
Replace Frame (bent)
Reuse bottom plate and torque tube stabilizer plate
Rebushing trunion pin holes on bottom plate

Item #20 Secondary Retention
Install secondary retention to meet Superior Mfg. specifications

MCCOY

DRILLING & COMPLETIONS

Item #21 Lifting rod
Replace lifting rod

Customer to specify length

Item # 22 Bell housing
Rework worn areas and machine to size
Rework guide arms
Replace springs
Rework bolt holes

Parts to rebuild PH-60 pipe handler	$15,600.00
Labor to rebuild PH-60 pipe handler	$16,900.00

Reassemble all components; hydraulically test as a unit & paint, using high build epoxy paint.

Prepare documentation package.

Estimated cost to rebuild this unit (standard)	$33,500.00
Remanufactured clamp cylinder	$12,701.85
Total with McCoy supplying clamp cylinder	$46,201.85

Delivery = approximately 5 - 6 weeks Standard

Crating (optional)	$650.00
Pallet (optional)	$275.00

We appreciate the opportunity to submit this quote for your consideration, and look forward to working with you,

Respectfully Submitted,

Marcus Curry

DIAMOND OFFSHORE

P.O. Box 4809, Houston, Texas 77210-4809
Phone: 281-492-5300 Fax: 281-647-2202

P.O. NUMBER	099-033168W
DATE	18-JUL-2013
REVISION	1
AFE NUMBER	

PURCHASE ORDER
Change Order

VENDOR
SUPERIOR MANUFACTURING & HYDRAULICS, INC.
HYDRAULICS
4225 HIGHWAY 90 E
BRDUSSARD, LA 70518

SHIP TO
New Iberia Warehouse
Attn: Receiving
6501 Freetown Road
New Iberia, LA 70560
337-365-5180

Well: MEXICO
Lease:
Rig: Dcean Summit

TERMS	DEL.PROM.	INCO Terms	SHIP VIA	ULTIMATE DEST	PRICE	TAX STATUS
NET 30	14-AUG-2013	EX-WORKS	MOTOR FREIGHT	MEXICO	FIRM	EXEMPT

CONFIRMING TO. & PHONE NUMBER	NOTE TO VENDOR
MIKE COATES 337-837-8847	W/O# 041434

ITEM	QTY.	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
1	1	EACH	Account Reference: 7350000 117322-650 - HANDLER, PIPE, PH-60D, 650 TON, DUAL CRANK MODEL: PH-60D PIPE HANDLER (REPAIR AS PER DODI MSR-24) 18-JUL-13 - PO REVISED TO REFLECT ADDITIONAL COST TO REPLACE CLAMP BODY FOUND DEFECTIVE DURING INSPECTION REPAIR TO OEM SPECIFICATIONS, TOLERANCES AND DODI REPAIR SPECIFICATION MSR-24 REPAIRS INCLUDE TOTAL REFURBISHMENT OF FOLLOWING CLAMP CYLINDER BOTH TORQUE CYLINDERS LIFT CYLINDER TO BE REPLACED WITH NEW AIR CYLINDERS RELIEF MANIFOLD DIVERTER VALVE TDRQUE TUBE PIPE GUIDE SAFETY ACTUATOR ARMS SAFETY ARM MOUNTING BRACKET	46,201.85	46,201.85
		**NOTE	**Country of Origin must be stated on each line item of Packing List or Commercial Invoice for material destined for export. If Country of Origin is not provided, Diamond Offshore reserves the right to cancel the order and return material to vendor at vendorâ€™s expense without incurring cancellation or restocking charges.		
				US Total	46,201.85

Remit Invoices To:
DIAMOND OFFSHORE COMPANY
P.O. Box 4809
Houston, Texas 77210

Purchase is exempt from sales and use tax per the following:
Offshore Drilling Equipment Exemption -- Louisianna R.S. 47:305(I)
First Use Offshore Exemption -- Louisianna R.S. 47:305.10
Vessel Exemption -- Louisianna R.S. 47:305.1

Charlie Breedlove

ACCEPTANCE OF THIS ORDER BY THE SELLER'S COMMENCEMENT OF PERFORMANCE OR OTHERWISE SHALL CONSTITUTE FULL ACCEPTANCE BY THE SELLER OF DIAMOND OFFSHORE'S STANDARD TERMS AND CONDITIONS OF PURCHASE AND ALL TERMS AND CONDITIONS CONTAINED HEREIN OR ATTACHED HERETO.
THE P.O. NUMBER MUST LEGIBLY APPEAR ON ALL INVOICES, PACKAGES AND CORRESPONDENCE RELATED TO THIS ORDER.
BUYER REQUIRES FREIGHT DOCUMENTATION. ORIGINAL FREIGHT INVDICE MUST ACCOMPANY ALL FREIGHT CHARGES EXCEEDING $500.
MATERIAL SAFETY DATA SHEETS MUST ACCOMPANY ALL HAZARDOUS MATERIAL SHIPMENTS

DIAMOND OFFSHORE

P.O. NUMBER	099-033168W
DATE	18-JUL-2013 1
AFE NUMBER	

PURCHASE ORDER

VENDOR
SUPERIOR MANUFACTURING & HYDRAULICS, INC.
HYDRAULICS
4225 HIGHWAY 90 E
BROUSSARD, LA 70518

SHIP TO
New Iberia Warehouse
Attn: Receiving
6501 Freetown Road
New Iberia, LA 70560

Well: MEXICO
Lease:
Rig: Ocean Summit

TERMS	DEL.PROM.	INCO Terms	SHIP VIA	ULTIMATE DEST	PRICE	TAX STATUS
NET 30	14-AUG-2013	EX-WORKS	MOTOR FREIGHT	MEXICO	FIRM	EXEMPT

CONFIRMING TO. & PHONE NUMBER	NOTE TO VENDOR
MIKE COATES 337-837-8847	W/O# 041434

ITEM	QTY.	UNIT	DESCRIPTION	UNIT PRICE	EXTENSION
			DIE HOLDERS AIR CYLINDER MOUNTING BRACKET BELL HOUSING STOP TUBES TORQUE TUBE STABLIZER FRAME & GUARD TO BE REPLACED WITH NEW		
				US Total	46,201.85

Remit Invoices To:
DIAMOND OFFSHORE COMPANY
P.O. Box 4809
Houston, Texas 77210

Charlie Breedlove

Diamond Offshore Company
Terms and Conditions of Purchase

The party to which this Purchase Order ("Order") is addressed (herein referred to as the "Seller") by acceptance of this Order agrees that the purchase by Diamond Offshore Company or its affiliated companies (individually and collectively referred to herein as "Buyer") of the goods and services covered by the Order shall be governed by the following terms and conditions:

1. ACCEPTANCE; OTHER TERMS; CHANGE OROERS

1.1 Commencement of Performance. Seller's commencement of performance of this Order shall constitute acceptance of all of the terms and conditions of this Order without reservation, whether or not Seller has signed and returned a written acknowledgement.

1.2 Terms of Purchase. This Order is an offer by Buyer to purchase the goods and services described in the Order only upon the terms and conditions contained in this Order without regard to any conflicting terms and conditions contained in Seller's quote or proposal for the goods or services the subject of this Order, even if such quote or proposal is referred to or attached to this Order, and Seller's acceptance of this Order shall be limited to such terms and conditions contained in this Order. Any terms set forth or contained in Seller's quotation, acceptance or otherwise which are additional to or different from those contained herein shall be of no force and effect and shall not be binding upon Buyer unless expressly agreed in writing by Buyer.

1.3 Other Agreements. In the event there is any other written agreement between Buyer and Seller in existence between Buyer and Seller with respect to Buyer's purchase of the goods or services described in this Order, then such other agreement shall govern such purchase only to the extent of any conflict between the terms and conditions contained in this Order and the terms and conditions contained in such other agreement.

1.4 Buyer's Changes; Change Orders. Buyer may, at any time, unilaterally change the terms and conditions of this Order, including, without limitation changes in (i) the technical specifications of the goods and/or services covered by the Order, (ii) quantities, (iii) methods of shipping and/or packaging; (iv) inspection standards, and (v) place of delivery ("Buyer's Changes"). The change, together with any such adjustments, shall be set forth in a written Change Order issued by Buyer and acknowledged by Seller either in writing or by Seller's commencement of performance pursuant to the written Change Order, whether or not Seller has signed and returned a written acknowledgement. If any such change affects the purchase price or delivery date, then Buyer and Seller shall mutually agree upon adjustment of the same.

2. REIMBURSEMENT OF EXPENSES

2.1 Reimbursement of Expenses. If this Order provides for reimbursement of Seller's expenses, such expenses must be incurred in accordance with our corporate policies, which are available upon request.

3. SHIPPING; INSURANCE; TRANSFER OF TITLE; DUTY DRAWBACKS

3.1 Incoterms. All shipping terms in this Order refer to International Chamber of Commerce, *Incoterms 2000*. Title to goods will pass to Buyer when delivery is complete according to section A4 of the applicable Incoterm as described in *incoterms 2000*. If the designated Incoterm requires cargo insurance, Seller must purchase insurance under Clause A of the applicable Incoterm.

3.2 Overshipments and Early Shipments. If Seller ships more goods than ordered, or if Seller delivers the goods earlier than ordered, Buyer may purchase some or all of the goods or return some or all of the goods to Seller at Seller's risk and expense.

3.3 Duty Drawbacks. Buyer reserves the right to any duty drawbacks.

4. PACKAGING AND LABELLING. Seller must package all goods in accordance with good commercial practice and in a manner acceptable to common carriers for shipment at the lowest rate for the goods involved, and adequate to insure safe arrival of the goods to their destination. Each shipment must be adequately labeled to identify it with this Order.

5. TIME IS OF THE ESSENCE; CANCELLATION

5.1 Time is of the Essence. Time is of the essence under this Order.

5.2 Cancellation. Buyer may cancel this Order in whole or in part if Seller does not deliver the goods or perform the services in full and in conformity with this Order within the time specified in this Order or, if no time period is specified, within a reasonable time. If Buyer cancels this Order for default and it is later determined that Seller was not in default, Seller's rights will be construed as if the cancellation was for Buyer's convenience. Buyer may cancel this Order, in whole or in part, at any time for its convenience. If Buyer cancels this Order for its convenience and Buyer gives Seller less than ten (10) days' notice of cancellation, Buyer will reimburse Seller's actual reasonable out-of-pocket costs that are not capable of being mitigated. To be reimbursed, Seller must submit its written request for reimbursement within thirty (30) days after Buyer's notice of cancellation. Upon receipt of Buyer's notice of cancellation, regardless of the reason for the cancellation, Seller must immediately stop all work in progress and use its best efforts to mitigate any costs associated with the cancellation. Buyer has the option to purchase Seller's work in progress, including any raw materials Seller may have obtained to use in Seller's work. Buyer's price to purchase Seller's work in progress will be a prorated price based on the percentage of work remaining to be completed. Buyer's price to purchase any raw materials will be Seller's actual cost. Seller is not entitled to any other remedy for cancellation of this Order except as provided in this Subsection 5.2.

6. WARRANTIES

6.1 Warranty Period. Except for latent defects, fraud or such gross mistakes of Seller as amount to fraud, notice of any claim based on the warranties under this Order must be given by Buyer to the Seller within eighteen (18) months following delivery to the Buyer or twelve (12) months from commencement of use or receipt of satisfactory qualification test reports, whichever is later.

6.2 Warranty - Goods. Seller warrants that (a) the goods shall be of high quality and workmanship within recognized industry standards, free from defect, of merchantable quality and fit for the intended purpose or use for which they are

purchased to the extent such purpose or use is known, or reasonably known, to Seller; (b) the goods shall fully comply with any data, reference to data or specifications provided by Buyer and/or any samples or documentation provided by Seller; (c) the goods shall be conveyed with clear title, free of lien or encumbrance of security interest upon delivery of the goods to Buyer or other party authorized by Buyer; and (d) the goods shall not violate any intellectual property rights of any third party.

6.3 Warranty – Services. Seller warrants that: (a) any services provided under this Order shall be performed in a professional and a workmanlike manner and in full conformance with any specifications or requirements provided by Buyer or any documentation provided by Seller; and (b) the performance of the services will not violate any intellectual property rights of any third party or any duty of confidentiality Seller owes to a third party.

6.4 Other Warranties. The warranties listed above are in addition to any other warranties made by Seller or imposed by law, whether expressed or implied, and such warranties shall survive inspection, testing acceptance of, and payment for the goods and shall accrue to and be assignable to Buyer's successors and assigns.

6.5 Remedies. If any goods or services do not comply with the warranties, Buyer may, at its option, and without additional cost to it, (a) require Seller to repair or replace the goods such that the goods will conform to the warranties, (b) require Seller to re-perform any services until the services conform to the warranties, (c) return any non-conforming goods to Seller at Seller's expense for a full refund, (d) correct the non-conformance and charge Seller for the cost to make the correction, and/or engage a third party to provide substitute goods or services and charge Seller for the costs of obtaining the substitute goods or services from the third party. The remedies listed above are in addition to any other remedies available to Buyer at law or in equity. Buyer's review and/or approval of Seller's materials or designs shall not relieve Seller of its responsibilities hereunder.

7. INTELLECTUAL PROPERTY INDEMNIFICATION

7.1 Intellectual Property Indemnification. Seller will defend and indemnify (including attorneys fees) Buyer, its parent and affiliates against any claim alleging that Seller's goods or services infringe or violate a patent, copyright, trademark, trade secret, or any other contractual right, proprietary right or intellectual property right of any third party.

8. LIENS AND RELATED CLAIMS

8.1 Liens and Related Claims. Seller agrees to pay or cause to be paid all valid claims for payment arising out of or in connection with labor, material, supplies and/or services provided by Seller in connection with this Order. Seller agrees that it will not permit and agrees to fully release, defend, indemnify (including attorney's fees, filing fees and other related expenses) and hold harmless Buyer, its parent and affiliates and each party for which Buyer is working, from and against any and all claims, liens, encumbrances, demands, causes of action, liabilities and damages of every kind and character ("Liens") of any kind that are asserted, affixed or filed against any property of Buyer (including, without limitation, any vessel) or the lease on which operations are conducted by Buyer or any property of others, including any party for which Buyer is working, arising out of or in connection with, labor, material, supplies and/or services provided by Seller and/or its subcontractors in connection with this Order. If Seller fails or refuses to pay any such claim and/or if any such Lien is asserted, affixed or filed, Buyer has the right to withhold the amount of the claim and/or Lien from any money due or to become due to Seller and pay such claim and/or discharge any such Lien. Before any payment is made to Seller under this Order, Buyer may require that Seller furnish evidence satisfactory to Buyer that there are no unsatisfied claims for labor, materials, equipment, and supplies or for injuries to persons or property not covered by insurance in connection with this Order.

9. MISCELLANEOUS

9.1 Governing Law. This Order shall be governed by the law of the State of Texas, without regard to its conflict of law rules which would refer to another jurisdiction. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Order.

9.2 Venue. The sole and exclusive venue for the resolution of any and all disputes arising from or relating to this Agreement is in the state or federal courts located in Harris County, Texas.

9.3 Compliance with Laws. Seller must comply with all applicable laws in performance of its obligations under this Order.

9.4 Assignment. Seller may not assign its rights or delegate its obligations under this Order without the prior written consent of Buyer.

9.5 Incorporation of Executive Orders by Reference. The Equal Employment Opportunity Clause required under Executive Order 11246, the affirmative action commitment for disabled veterans and veterans of the Vietnam era, set forth in 41 CFR 60-250.4, the affirmative action clause for disabled workers, set forth in 41 CFR 60-741.5(a), and the related regulations of the Secretary of Labor, 41 CFR Chapter 60, are incorporated by reference in this Order. By accepting this Order, Seller certifies that it is in compliance with the authorities cited above, and that Seller does not maintain segregated facilities or permit its employees to perform services at locations where segregated facilities are maintained, as required by 41 CFR 60-1.8.

MACCOY
MOVING GLOBAL ENERGY FORWARD

VARCO PIPE HANDLER DATA

Work Order #: 041434 Date: 8-22-13

Rig Ocean Summit

Serial #: DO 43186 Ship Date: _____

FAT Date: 8-22-13

Test Conducted By: _____

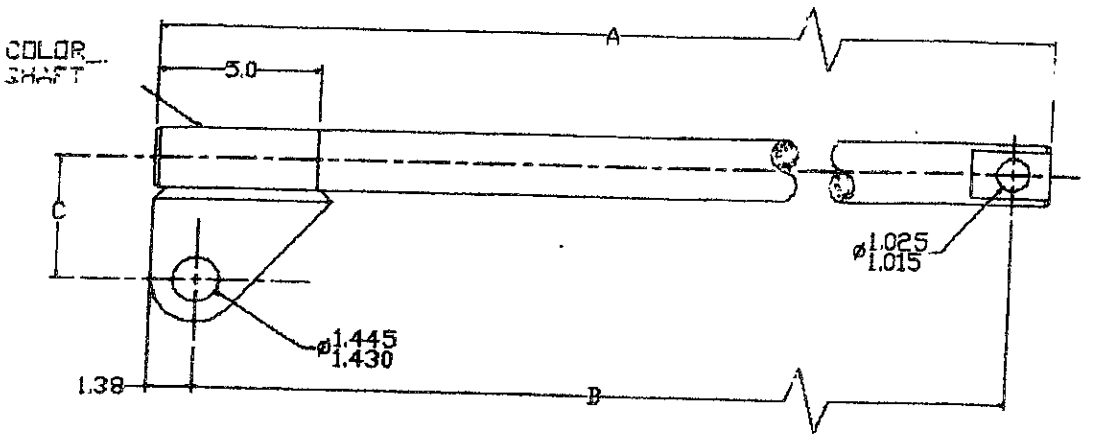
Test Witnessed By: _____

DIAMOND OFFSHORE
Brian Pierce
Superintendent
Equipment & Repair Q/A

Supervisor _____

Location: Broussard

Pipe Handler Hanging Shaft (Lifting Rod) Identification Guide						
Pipehandler Model	Rotating Head Configuration	Load Rating (ton)	Dim. A (inches)	Dim. B (inches)	Dim. C (inches)	Color Coding
PH 85	7-port w/o BX	650/750	37.06	34.56	3.5	Red
PH 85	7-port w/o BX	500	39.56	37.06	4	[illegible]
PH 85	10-port w/BX	650/750	35.46	32.96	3.5	White
PH 85	10-port w/BX	500	37.96	35.46	4	Green
PH 60	7-port	500	42.6	40.1	3.5	[illegible]
PH 60	7-port	650	40.1	37.6	3	Orange



NOTE

SEQUENCE VALVES HAVE *NOT* BEEN SET
THEY MUST BE SET PER MANUFACTURER SPECS BEFORE OPERATION

UPON INSTALLATION, CYCLE UNIT FOR APPROXIMATELY 15 - 20 MINUTES TO REMOVE ANY AIR FROM LINES

SUPERIOR
Manufacturing & Hydraulics

VARCO PIPE HANDLER TEST REPORT

CUSTOMER: Diamond O/S MODEL: PH 60 pipe handler

RIG: Ocean Summit (IF APPLICABLE) W/O: 041434 S/N: DO 43186

DATE: 6-19-13 TECH.(S): Oerland SUPERVISOR:

1. VISUAL EXAMINATION / DOCUMENTATION
   (Attach "As Received" digital photos, note and document any shipping damage.)

   A. Stop Tube installed? (Yes) / No Long / (Short) old style

   B. Stop Tube stored? Yes / (No) (Long) / Short

   C. Lift Cylinder Shims? (Yes) / No Number: 4 Height: 1 1/2

   D. Air Cylinder Adjustment Distance: _____ (Not applicable for PH60)

   E. Die Holders installed? (Yes) / No Record Thickness: Front 2 1/4 Rear 2 1/4

   F. Torque Tube Guide Ring: ID 7 3/4

   G. Length of Lifting Rod Center Line to Center Line: 42 5/8 w/ long padeye

   H. Drift Test: Install Drift Mandrel (7" OD f/PH60, 8 5/8" OD f/PH85).
   Pressurize clamp cylinder to 2000 psi. *Note:* Depending on condition of Pipe Handler in As Received condition, it may be necessary to connect power unit directly to clamp circuit. If clamp cylinder will not hold pressure, indicate clamp cylinder failed this initial test. Pass / Failed Initial _____
   If clamp cylinder holds 2000 psi, measure distance between mandrel and torque tube spline ID on side adjacent to frame _____, and side opposite of frame _____.

2. Disassemble Pipe Handler per Varco instructions. *Ref. Varco Manual pages 67-79.*

3. Disassemble and evaluate all cylinders, clamping jaws, pins, and structural components, etc., by completing the Pipe Handler Evaluation Report.
   (Attach digital photos of worn or damaged areas on components.)

   Forwarded information to Customer Service on date: _____ *(Attach Proposal)*

   Job Approval Date: _____ PO Number: _____

   Blast structure, torque tube, frame, body, clamp cylinder body, stabbing guide, mounting shaft, clamping jaws, etc.

   Magnetic Particle Inspection Results - Indicate: No Faults / Faults found *(Describe)*

   _____

   _____

   Date: _____ Report No.: _____ *(Attach Report)*

4. COMPONENT TEST DATA SUMMARY

Repair / Rebuild all cylinders using new seals. Test cylinders using block & monitor technique. Replace all cartridges. *Attach test report for:*

Item	Test Pressure	Tested By	Work Order
A. Lift Cylinder	2500	[signature]	041434
B. Torque Cylinder #1	2500	[signature]	041434
C. Torque Cylinder #2	2500	[signature]	041434
D. Clamp Cylinder	2500	[signature]	041434
E. Air Cylinder #1	120	[signature]	041434
F. Air Cylinder #2	120	[signature]	041434
G. Valve Manifold	2500	[signature]	041434

5. Reassemble unit per Varco instructions, *manual pages 69-79.*
Do not install Lift Cylinder Stop Tube.
Torque bolts & connectors. *Ref. Varco manual pages 69 and 77.*

	Torque	Tech Initials
Cylinder rod end to cylinder rod*	944 ft/lbs	[initials]
* The torque cylinder rod ends are threaded into the rods with loctite and cross pinned.		
Frame to clamp cylinder body	250 ft/lbs	[initials]
Stabbing guide to body	250 ft/lbs	[initials]
Die retainer screws	380 ft/lbs	[initials]
Body hinge pin retainer screws	150 ft/lbs	[initials]
Stabbing guide spring retainer screws	75 ft/lbs	[initials]
Jaw retaining screws	110 ft/lbs	[initials]
Install safety wire and/or cotter pins		[initials]

6. OPERATIONAL TESTING *(Use 30-35 gpm, 2500 psi Pressure Compensated Power Supply.)*

See Adjustment Procedures doc. March 18, 1994 with manifold illustration, schematic doc. 107530 sht 3 of 3, and Varco Manual page 4-28 (Figure 4-23 / PH85 Torque Wrench Hyd. Operation Schematic).

A. Suspend Pipe Handler from lifting eye. Connect a pup joint or joint of drill pipe to the saver sub and makeup hand tight. Be sure to use the correct thread compound when making up. (Alternately install Superior test sub. Operational testing requires use of 2-position 4-way valve. Connect test hoses to Pipe Handler manifold so that normally pressured line is connected to "A" port.)
NOTE: When adjusting torque wrench manifold needle valves, loosen the locknut around the valve stem and use a 5/32" hex wrench to adjust the valve. After obtaining desired setting tighten locknut around valve stem.

B. Turn off the HPU, screw in the RECYCLE, CLAMP, and TORQUE sequence valves on the torque wrench manifold.

C. Fully back out the pressure reducing valve (PRV), then screw in one turn.

D. Turn the lift/lower flow control valve fully in, and then back it out three turns. Turn on the hydraulic power unit. Confirm lift cylinder extends to lower Pipe Handler. Confirm clamp cylinder retracts or remains retracted. If these results are not observed, contact supervisor.

Record Pressure 1000

Pipe Handler moves Up / Down
CIRCLE ONE

Initial [initials]

E. If the torque cylinders are in their full clockwise position, set the Make/Break valve to MAKE. If they are in their full counterclockwise position, set Make/Break valve to BREAK. Note that torque cylinders should not move if the recycle sequence valve is fully in.

F. Slowly back out the recycle sequence valve until torque cylinders just start to move, then screw out an additional full turn.

Record pressure 1500

G. Move the Make/Break valve to BREAK. Set the pressure reducing valve to 750 psi to adjust makeup torque.
(22,500 ft/lbs f/PH60 or 31,875 ft/lbs f/PH85)

H. Switch the lever between Make and Break to adjust recycle sequence valve until full rotation in each direction takes six to eight seconds. Tighten the locknut around the recycle sequence valve adjustment screw.

Record pressure 1500

Verify full travel of both torque cylinders.

I. Set the MAKE/BREAK valve to MAKE.

J. Depress and hold the torque wrench operating button on the driller's console. (Alternately shift test valve.) Confirm the lift cylinder retracts, the pipe handler should lift, and the clamp jaws should remain retracted.

Initials WB

K. Slowly back out the clamp sequence valve until the clamp jaws just begin to clamp onto the tool joint. Screw out an additional half turn.

Record pressure 1200

Lock the clamp sequence valve adjustment screw in position by tightening the locknut.

L. Back out the torque sequence valve until the torque cylinders just begin to stroke, then back out an additional half turn. Tighten the locknut around the torque sequence valve adjustment screw.

Record pressure 1800

M. Release the torque wrench operating button on the driller's console. (Alternately release test valve.) Confirm the torque wrench should start to unclamp and drop, then the torque cylinders should recycle.

Initials WB

N. If the torque cylinders recycle *before* the clamp cylinders retract, screw in the recycle sequence valve until the torque cylinders do not move before clamp cylinders have fully retracted. Tighten the recycle sequence valve adjustment screw locknut.

O. Cycle the torque wrench as many times as required to makeup the connection.

Note: Do not switch the MAKE/BREAK valve to BREAK until completing the makeup sequence-which may require repeating the makeup sequence several times.

Verify the torque pressure regulating valve setting after every makeup sequence before releasing the makeup switch. Repeat the makeup sequence until the torque cylinders do not stroke more than one inch during the final makeup sequence-repeat the sequence if uncertain. Varco recommends that the driller operating the pipe handler verify that the torque cylinders do not stroke more than one inch on the last makeup cycle.

Varco also recommends checking the torque gauge on the pipe handler while making connections to make sure the torque wrench applies the correct amount of torque to the connection.

Stop and verify correct operation whenever the operator observes unsteady or inconsistent hydraulic pressure readings, or finds it difficult to adjust set points.

Varco recommends that a second individual assist the driller when making connections with the top drive torque wrench. The second person can verify that the torque wrench applies the correct torque to connections.

P. Set the MAKE/BREAK Valve to BREAK.

Q. Verify the torque wrench correctly breaks out the drill pipe from the saver sub, without breaking out the saver sub or lower IBOP. (Alternately, break out Superior test sub.)

R. Operate pipe handler to verify both torque cylinders cycle through their full stroke.

S. Reset MAKE/BREAK valve to MAKE position. The torque wrench is ready for operation.

7. Increase PRV setting to 2000 psi and makeup/breakout test sub to full torque (60,000 fl/lbs f/PH60 or 85,000 ft/lbs f/PH85). Activate test valve to makeup joint. Confirm final makeup cylinder is 1" or less. Hold full system pressure of 2000 psi for 5 minutes. Visually inspect for leaks.
   Initial

8. Switch MAKE/BREAK valve to BREAK position. Slowly activate test valve to breakout joint while monitoring for leaks.
   Initial

9. Return MAKE/BREAK valve to MAKE position.

10. Reset PRV to 750 psi. Repeat M/B Cycle. Initial

11. Air Cylinder IBOP Actuator Test:
    Activate Air Cylinders using 120 psi air pressure to verify full and free movement. Record distance from Torque Stabilizer to centering of Actuator Arm Cam Follower.
    Raised Position: Left 13'14 Right 13'14
    Lowered Position: Left 8'12 Right 8'12

12. Remove test sub.

13. Install Stop Tube as noted in 1.A, or as otherwise instructed.

14. DRIFT INSPECTION - Inspect to insure rear dies are fully retracted beyond line extending between Torque Tube Insert ID and Stabbing Guide ID.
    Initial

15. Stamp WO number on frame. Initial

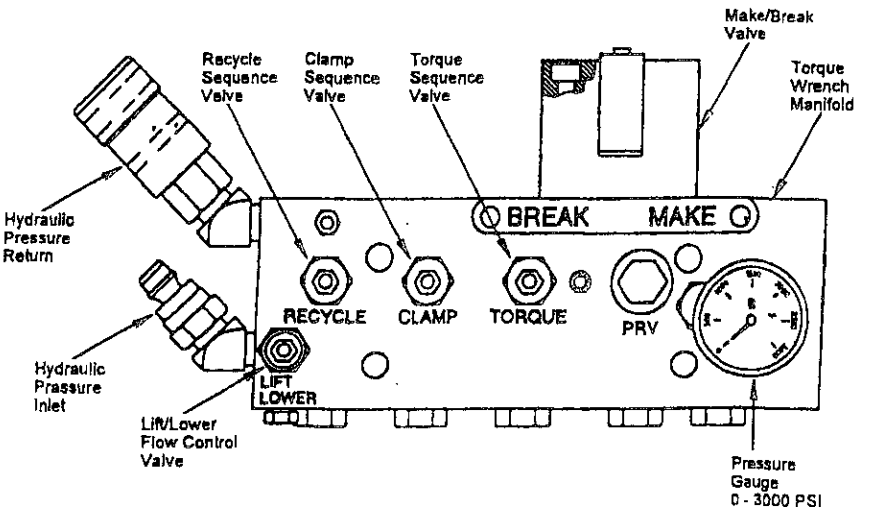
16. Install Lock Nuts and Seal Wire.

17. Paint all exposed metal with appropriate paint per customer spec. NOTE: Protect all critical surfaces, hoses, hydraulic quick disconnects, etc.

18. Attach set of spacers.

19. Pallet unit for storage/shipping.

20. COMPLETE TEST REPORT DOCUMENTS. (Attach digital photos of final completed assembly before palletizing.)



Torque Wrench Control Manifold

(Reproduced from Varco Operating Manual)

MCCOY | DRILLING & COMPLETIONS
MOVING GLOBAL ENERGY FORWARD

CYLINDER TEST REPORT

(For lift cylinders, backup cylinders, and industrial cylinders)

Customer: Diamond O/S Description: Torque Cyl #1

Date: 7-24-13 Work No: 041434 Serial No: _____

Technician: Derland Previous WO No's: 37899

Test Pressure: 2,5000 Piston Seal Type *: polypack

* For all seal types except piston rings and leather packing, cylinder must pass 5 minute hold in both directions without pressure loss when tested using the pressurize, block, and monitor technique.

Bore 6 Rod Diameter 2 1/2 Stroke 4

Check for External Leaks ✓ Test Minimum of 5 cycles: ✓

Check for Internal Leaks ✓ Test Minimum of 5 cycles: ✓

Pressure held 30 Minutes (minimum of 5) in each direction. Initial DB

No pressure drops observed. Initial DB

Piston/Retainer to Rod Torque ✓ N/A or _____ ft/lbs

Pinned ✓ Yes ___ No Loctited ✓ Yes ___ No

Rod End to Rod End ✓ N/A or _____ ft/lbs

Pinned ___ Yes ✓ No Loctited ___ Yes ✓ No

Tie Rod Size OD: 1 Thread: 14 Length: 14 3/8 Qty: 4

Tie Rod Torque 520 ft/lbs ___ N/A Initial DB

Fittings Installed	✓ Yes	___ No	___ N/A
Mounting Hardware Installed	___ Yes	___ No	✓ N/A
Pins Installed	___ Yes	___ No	✓ N/A
Grease Zerts Installed	___ Yes	___ No	✓ N/A
Bushings Inspected	✓ Yes	___ No	___ N/A
Breather Installed	___ Yes	___ No	✓ N/A

Painted: yellow Tagged: _____

Comments: cylinder test good no bypass

TESTED BY: Derland Broussard SUPERVISOR: Don Jones

SIGNATURE SIGNATURE

Derland Broussard Don Jones

PRINT NAME PRINT NAME

MCCOY | DRILLING & COMPLETIONS
MOVING GLOBAL ENERGY FORWARD

CYLINDER TEST REPORT

(For lift cylinders, backup cylinders, and industrial cylinders)

Customer: Diamond Description: Torque Cyl #2

Date: 7-24-13 Work No: 041434 Serial No: _____

Technician: Derland Previous WO No's: 37899

Test Pressure: 2,500 Piston Seal Type *: poly pack

* For all seal types except piston rings and leather packing, cylinder must pass 5 minute hold in both directions without pressure loss when tested using the pressurize, block, and monitor technique.

Bore 6 Rod Diameter 2 1/2 Stroke 4

Check for External Leaks ✓ Test Minimum of 5 cycles: ✓

Check for Internal Leaks ✓ Test Minimum of 5 cycles: ✓

Pressure held 30 Minutes (minimum of 5) in each direction. Initial DB

No pressure drops observed. Initial DB

Piston/Retainer to Rod Torque ✓ N/A or _____ ft/lbs

Pinned ✓ Yes ___ No Loctited ✓ Yes ___ No

Rod End to Rod End ✓ N/A or _____ ft/lbs

Pinned ___ Yes ✓ No Loctited ___ Yes ✓ No

Tie Rod Size OD: 1 Thread: 14 Length: 145/8 Qty: 4

Tie Rod Torque 520 ft/lbs ___ N/A Initial DB

Fittings Installed	✓ Yes	___ No	___ N/A
Mounting Hardware Installed	___ Yes	___ No	✓ N/A
Pins Installed	___ Yes	___ No	✓ N/A
Grease Zerts Installed	___ Yes	___ No	✓ N/A
Bushings Inspected	✓ Yes	___ No	___ N/A
Breather Installed	___ Yes	___ No	✓ N/A

Painted: yellow Tagged: _____

Comments: cylinder test good no bypass

TESTED BY: [signature] SIGNATURE Derland Brousgard PRINT NAME

SUPERVISOR: [signature] SIGNATURE Jon Jones PRINT NAME

MCCOY | DRILLING & COMPLETIONS
MOVING GLOBAL ENERGY FORWARD

CYLINDER TEST REPORT

(For lift cylinders, backup cylinders, and industrial cylinders)

Customer: Diamond Description: Lift Cylinder

Date: 7-25-13 Work No: 041434 Serial No: _____

Technician: Derland Previous WO No's: 37899

Test Pressure: 2,500 Piston Seal Type *: U Cup

* For all seal types except piston rings and leather packing, cylinder must pass 5 minute hold in both directions without pressure loss when tested using the pressurize, block, and monitor technique.

Bore 3 1/4 Rod Diameter 1 3/8 Stroke 13 1/2

Check for External Leaks ✓ Test Minimum of 5 cycles: ✓

Check for Internal Leaks ✓ Test Minimum of 5 cycles: ✓

Pressure held 30 Minutes (minimum of 5) in each direction. Initial DB

No pressure drops observed. Initial DB

Piston/Retainer to Rod Torque ~~N/A~~ or _____ ft/lbs

Pinned ✓ Yes ___ No Loctited ✓ Yes ___ No

Rod End to Rod End ~~N/A~~ or _____ ft/lbs

Pinned ✓ Yes ___ No Loctited ___ Yes ✓ No

Tie Rod Size OD: 5/8 Thread: 18 Length: 18 1/2 Qty: 4

Tie Rod Torque 150 ft/lbs ___ N/A Initial DB

Fittings Installed	✓ Yes	___ No	___ N/A
Mounting Hardware Installed	✓ Yes	___ No	___ N/A
Pins Installed	✓ Yes	___ No	___ N/A
Grease Zerts Installed	___ Yes	___ No	✓ N/A
Bushings Inspected	✓ Yes	___ No	___ N/A
Breather Installed	___ Yes	___ No	✓ N/A

Painted: yellow Tagged: _____

Comments: cylinder test good no bypass

TESTED BY: Derland Broussard SUPERVISOR: _____

SIGNATURE SIGNATURE

Derland Broussard Jon Jones

PRINT NAME PRINT NAME

MCCOY | DRILLING & COMPLETIONS
MOVING GLOBAL ENERGY FORWARD

CYLINDER TEST REPORT

(For lift cylinders, backup cylinders, and industrial cylinders)

Customer: Diamond O/S Description: Air Cyl #1

Date: 7-26-13 Work No: 041434 Serial No: _____

Technician: Derland Previous WO No's: 37899

Test Pressure: 120 psi Piston Seal Type *: poly pack

* For all seal types except piston rings and leather packing, cylinder must pass 5 minute hold in both directions without pressure loss when tested using the pressurize, block, and monitor technique.

Bore 3 3/4 Rod Diameter 1 1/4 Stroke 5

Check for External Leaks ✓ Test Minimum of 5 cycles: ✓

Check for Internal Leaks ✓ Test Minimum of 5 cycles: ✓

Pressure held 30 Minutes (minimum of 5) in each direction. Initial DB

No pressure drops observed. Initial DB

Piston/Retainer to Rod Torque ✓ N/A or _____ ft/lbs

Pinned ✓ Yes ___ No Loctited ✓ Yes ___ No

Rod End to Rod End ✓ N/A or _____ ft/lbs

Pinned ___ Yes ✓ No Loctited ✓ Yes ___ No

Tie Rod Size OD: NA Thread: NA Length: NA Qty: NA

Tie Rod Torque _____ ft/lbs ✓ N/A Initial _____

Fittings Installed	✓ Yes	___ No	___ N/A
Mounting Hardware Installed	___ Yes	___ No	✓ N/A
Pins Installed	✓ Yes	___ No	___ N/A
Grease Zerts Installed	___ Yes	___ No	✓ N/A
Bushings Inspected	✓ Yes	___ No	___ N/A
Breather Installed	✓ Yes	___ No	___ N/A

Painted: yellow Tagged: _____

Comments: cylinder test good no bypass

TESTED BY: Derland Broussard SUPERVISOR: _____

SIGNATURE SIGNATURE

Derland Broussard Ben Jones

PRINT NAME PRINT NAME

MOVING GLOBAL ENERGY FORWARD | DRILLING & COMPLETIONS

CYLINDER TEST REPORT

(For lift cylinders, backup cylinders, and industrial cylinders)

Customer: Diamond o/s Description: Air Cyl #2

Date: 7-25-13 Work No: 041434 Serial No: _____

Technician: Werland Previous WO No's: 37899

Test Pressure: 120psi Piston Seal Type *: _____

* For all seal types except piston rings and leather packing, cylinder must pass 5 minute hold in both directions without pressure loss when tested using the pressurize, block, and monitor technique.

Bore 3 3/4 Rod Diameter 1 1/4 Stroke 5

Check for External Leaks ✓ Test Minimum of 5 cycles: ✓

Check for Internal Leaks ✓ Test Minimum of 5 cycles: ✓

Pressure held 30 Minutes (minimum of 5) in each direction. Initial DB

No pressure drops observed. Initial DB

Piston/Retainer to Rod Torque ✓ N/A or _____ ft/lbs

Pinned ✓ Yes ___ No Loctited ✓ Yes ___ No

Rod End to Rod End ✓ N/A or _____ ft/lbs

Pinned ___ Yes ✓ No Loctited ✓ Yes ___ No

Tie Rod Size OD: NA Thread: NA Length: NA Qty: NA

Tie Rod Torque _____ ft/lbs ✓ N/A Initial _____

Fittings Installed	✓ Yes	___ No	___ N/A
Mounting Hardware Installed	___ Yes	___ No	✓ N/A
Pins Installed	✓ Yes	___ No	___ N/A
Grease Zerts Installed	___ Yes	___ No	✓ N/A
Bushings Inspected	✓ Yes	___ No	___ N/A
Breather Installed	___ Yes	___ No	✓ N/A

Painted: yellow Tagged: _____

Comments: cylinder test good no by pass

TESTED BY: Werland Broussard SUPERVISOR: _____

SIGNATURE SIGNATURE

Werland Broussard

PRINT NAME PRINT NAME

MACCOY | DRILLING & COMPLETIONS
MOVING GLOBAL ENERGY FORWARD

CYLINDER TEST REPORT

(For lift cylinders, backup cylinders, and industrial cylinders)

Customer: Diamond O/S Description: Clamp Cyl

Date: 7-26-13 Work No: 041434 Serial No: _____

Technician: Derland Previous WO No's: 37899

Test Pressure: 2,500 Piston Seal Type *: Varco

* For all seal types except piston rings and leather packing, cylinder must pass 5 minute hold in both directions without pressure loss when tested using the pressurize, block, and monitor technique.

Bore 10 Rod Diameter 8 Stroke 3

Check for External Leaks ✓ Test Minimum of 5 cycles: ✓

Check for Internal Leaks — Test Minimum of 5 cycles: —

Pressure held 30 Minutes (minimum of 5) in each direction. Initial DB

No pressure drops observed. Initial DB

Piston/Retainer to Rod Torque ___ N/A or ___ ft/lbs

Pinned ✓ Yes ___ No Loctited ✓ Yes ___ No

Rod End to Rod End ___ N/A or ___ ft/lbs

Pinned ___ Yes ✓ No Loctited ___ Yes ✓ No

Tie Rod Size OD: NA Thread: NA Length: NA Qty: NA

Tie Rod Torque ___ ft/lbs ___ N/A Initial DB

Fittings Installed	✓ Yes	___ No	___ N/A
Mounting Hardware Installed	✓ Yes	___ No	___ N/A
Pins Installed	✓ Yes	___ No	___ N/A
Grease Zerts Installed	✓ Yes	___ No	___ N/A
Bushings Inspected	✓ Yes	___ No	___ N/A
Breather Installed	___ Yes	___ No	✓ N/A

Painted: yellow Tagged: _____

Comments: cylinder test good no bypass

TESTED BY: Derland Brougsan SUPERVISOR: _____

SIGNATURE SIGNATURE

Derland Brougsan

PRINT NAME PRINT NAME

Parker Hannifin Corporation
Hose Products Division
30240 Lakeland Blvd.
Wickliffe, Ohio 44092

Type: HOSE SPECIFICATION	Page 1 of 8
Title: HYDRAULIC HOSE - NO-SKIVE TYPE - DOUBLE WIRE BRAID REINFORCED - RUBBER COVERED - ISO 1436-1 TYPE 2SN - PARKER HOSE STYLE 302	Specification GHS-302

1. SCOPE: This specification covers a double wire braid reinforced and rubber covered hose. In addition to the qualification test requirements outlined within this specification, the hose shall meet or exceed all the requirements specified in ISO 1436-1 standard for hose style 2SN.

2. APPLICATION: The hose is designed for use with:
   - petroleum base hydraulic fluids and lubricating oils within a temperature range of -40°C to +100°C (-40°F to +212°F)
   - water, water/oil emulsion and water/glycol hydraulic fluids up to +85°C (+185°F)
   - air up to +70°C (+158°F)

3. CONSTRUCTION: The hose shall consist of an extruded inner tube of oil resistant Nitrile synthetic rubber, two braids of high tensile steel wire reinforcement and an oil and weather resistant, black, wrapped finish synthetic rubber cover.

4. QUALIFICATION: All hose shall be qualified by the Parker Hose Products Division or its designee. The qualification shall consist of tests listed under "QUALIFICATION TEST REQUIREMENTS". The manufacturing plant shall supply test data indicating compliance with all the test requirements of ISO 1436-1 standard for hose style 2SN.

5. QUALIFICATION TEST REQUIREMENTS: The hose shall meet the following qualification requirements. Unless otherwise indicated, the test procedures shall be in accordance with ISO 6605 standard.

   5.1 DIMENSIONS: The hose shall meet the dimensional requirements specified in Table I.

   5.2 CHANGE IN LENGTH: The length change shall not exceed +2% to -4% when pressurized to the maximum working pressure listed in Table I.

   5.3 BURST TEST: There shall be no leakage, hose burst or any other indication of failure below the specified minimum burst pressure listed in Table I. A minimum of two hose assemblies shall be tested.

   5.4 IMPULSE TEST: The hose assemblies shall meet the requirements of ISO 1436-1 standard for 2SN hose. A minimum of four unaged hose assemblies shall be tested.

   5.5 ADHESION TEST: The hose shall meet the adhesion requirements specified in HS-L23.

   5.6 COLD BEND TEST: After exposure to -40°C (-40°F) for 24 hours, a hose assembly, not containing any fluid, except traces of assembly lubricant, if used, shall be bent to the minimum bend radius listed in Table I. The hose assembly shall exhibit no cover cracks, and shall not leak when subjected to the proof pressure (twice the maximum working pressure listed in Table I).

   5.7 VACUUM TEST: There shall be no evidence of hose blistering or collapse after exposure for 5 minutes at the vacuum rating listed in Table I.

5.8 ABRASION TEST: Three hose samples shall not lose more than 0.5 g of weight each after 2 000 abrasion cycles when subjected to the abrasion test per ISO 6945, with a vertical force of 25 ± 0,5 Newtons (5.62 ± 0.11 lb).

6. FITTING COMPATIBILITY: All hose assemblies shall meet the requirements of this specification when tested with all applicable Parker fittings listed in HS-D02.

7. IDENTIFICATION: Layline marking shall conform to HS-302 pages 4 or 5, HS-C31 and HS-C25. Marking shall be applied by means of transfer tape that yields a black background with white letters, except the Parker logo shall be white with black letters, unless otherwise permitted in the purchase order. Additionally, a colored yarn shall be incorporated in the hose wall identifying the manufacturer by color code as designated by the Rubber Manufacturers Association.

8. INSPECTION TESTS: Inspection tests listed as follows shall be performed on two samples representing each lot of 150 to 3 000 m (500 to 10 000 ft) of bulk hose. Lots of less than 150 m (500 ft) of hose need not be subjected to these tests if a lot has been tested and met the requirements within the previous 12 month period.

8.1 DIMENSIONAL CHECK TEST: The hose shall meet the specified dimensional requirements.

8.2 PROOF TEST: There shall be no leakage or any other indication of failure when subjected to the proof pressure (twice the maximum working pressure listed in Table I). Two unaged hose assembly samples shall be tested.

8.3 CHANGE IN LENGTH TEST: The length change of one unaged hose assembly sample shall not exceed +2% to -4% when pressurized to the maximum working pressure listed in Table I.

8.4 BURST TEST: There shall be no leakage, hose burst or any other indication of failure below the specified minimum burst pressure listed in Table I. Two unaged hose assembly samples shall be tested.

8.5 VISUAL EXAMINATION: The hose shall not exhibit any imperfections as described in HS-D98 when visually examined and shall be properly marked in accordance with section 7.

9. REFERENCE SPECIFICATIONS:

ISO 1436-1
ISO 6605
ISO 6945
Parker HS-C24
Parker HS-C25
Parker HS-C31
Parker HS-D02
Parker HS-D98
Parker HS-L23

TABLE I

HOSE SIZE				HOSE I.D.		WIRE O.D.		I.D. TO WIRE WALL THICKNESS		HOSE O.D.		COVER THICKNESS		I.D. TO WIRE CONCENTRICITY	
dash	mm	EN	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
-3	5	5	3/16	4,6 5,4	0.181 0.213	10,6 11,6	0.417 0.457	2,7 min.	0.106 min.	12,7 14,1	0.500 0.555	0,8 1,5	0.031 0.059	0,4	0.016
-4	6,3	6	1/4	6,2 7,0	0.244 0.276	12,1 13,3	0.476 0.524	2,8 min.	0.108 min.	14,3 15,7	0.563 0.618	0,8 1,5	0.031 0.059	0,4	0.016
-5	8	8	5/16	7,7 8,5	0.303 0.335	13,7 14,9	0.539 0.587	2,8 min.	0.110 min.	15,9 17,3	0.626 0.681	0,8 1,5	0.031 0.059	0,8	0.024
-6	10	10	3/8	9,3 10,1	0.366 0.398	16,1 17,3	0.634 0.681	3,2 min.	0.126 min.	18,3 19,7	0.720 0.776	0,8 1,5	0.031 0.059	0,6	0.024
-8	12,5	12	1/2	12,3 13,5	0.484 0.531	19,0 20,6	0.748 0.811	3,2 min.	0.124 min.	21,5 23,0	0.846 0.906	0,8 1,5	0.031 0.059	0,6	0.024
-10	16	16	5/8	15,5 16,7	0.610 0.657	22,2 23,8	0.874 0.937	3,2 min.	0.124 min.	24,7 26,2	0.972 1.031	0,8 1,5	0.031 0.059	0,6	0.024
-12	19	20	3/4	18,6 19,8	0.732 0.780	26,2 27,8	1.031 1.094	3,6 min.	0.142 min.	28,6 30,1	1.126 1.185	0,8 1,5	0.031 0.059	0,6	0.024
-16	25	25	1	25,0 26,4	0.984 1.039	34,1 35,7	1.343 1.406	4,4 min.	0.171 min.	37,3 38,9	1.469 1.531	1,0 2,0	0.039 0.079	0,8	0.030
-20	31,5	32	1 1/4	31,4 33,0	1.236 1.299	43,3 44,8	1.705 1.764	5,1 min.	0.201 min.	46,3 47,9	1.824 1.886	1,0 2,0	0.039 0.079	0,8	0.030
-24	38	40	1 1/2	37,7 39,3	1.484 1.547	49,6 52,0	1.953 2.047	5,7 min.	0.222 min.	53,5 55,4	2.106 2.181	1,3 2,5	0.051 0.098	0,8	0.030
-32	51	50	2	50,4 52,0	1.984 2.047	62,3 64,7	2.453 2.547	5,7 min.	0.222 min.	66,2 68,1	2.606 2.681	1,3 2,5	0.051 0.098	0,8	0.030

HOSE SIZE				I.D. TO O.D. CONCENTRICITY		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MAXIMUM VACUUM RATING		MINIMUM BEND RADIUS		WEIGHT	
dash	mm	EN	inch	mm	inch	MPa (*)	psi	MPa (*)	psi	kPa (**)	in of Hg	mm	inch	kg/m	lb/ft
-3	5	5	3/16	0,8	0.030	42,0	6 000	168,0	24 000	95	28	90	3 1/2	0,31	0.21
-4	6,3	6	1/4	0,8	0.030	40,0	5 800	160,0	23 200	95	28	100	4	0,39	0.26
-5	8	8	5/16	1,0	0.040	35,0	5 000	140,0	20 000	95	28	115	4 1/2	0,42	0.28
-6	10	10	3/8	1,0	0.040	33,0	4 750	132,0	19 000	95	28	130	5	0,55	0.37
-8	12,5	12	1/2	1,0	0.040	28,0	4 000	112,0	16 000	95	28	180	7	0,67	0.45
-10	16	16	5/8	1,0	0.040	25,0	3 600	100,0	14 400	95	28	200	8	0,77	0.52
-12	19	19	3/4	1,0	0.040	21,5	3 100	85,0	12 400	80	24	240	9 1/2	1,00	0.67
-16	25	25	1	1,3	0.050	16,5	2 400	65,0	9 600	80	24	300	12	1,49	1.00
-20	31,5	31	1 1/4	1,3	0.050	12,5	1 800	50,0	7 200	80	24	420	16 1/2	1,73	1.16
-24	38	38	1 1/2	1,3	0.050	9,0	1 300	36,0	5 200	80	24	500	20	2,14	1.44
-32	51	51	2	1,3	0.050	8,0	1 150	32,0	4 600	80	24	630	25	2,96	1.99

(*) For pressure values in bars, multiply the MPa value times 10.
For pressure values in kPa, multiply the MPa value times 1 000.
For pressure values in kgf/cm², multiply the MPa value times 10,2.

(**) Value listed is for negative gage pressure in kPa. For kPa absolute subtract kPa gage from 101 kPa. For negative gage pressure in bar, divide the kPa value by 100.

MAGNETIC PARTICLE INSPECTION REPORT

MT

CHECK
- ☐ JSA Attached
- ☐ JSA Not Required
- ☐ Utilized Client's JSA

Owensby & Kritikos, Inc.

NEW ORLEANS DIVISION
671 Whitney Ave., Bldg. B
Gretna, La 70056
Telephone 504/368-3122
Fax 504/362-4546
E-mail gretna@ok-insp.com
Internet www.ok-insp.com

LAFAYETTE DIVISION
111 Lafferty Drive
Lafferty Industrial Park
Broussard, La 70518
Telephone 337/837-9721
Fax 337/637-1316
E-mail lafayette@ok-insp.com

PAGE _____ OF _____

DATE _____

CUSTOMER _____ LOCATION _____

JOB DESCRIPTION _____

CONTRACTOR _____ JOB NO. _____

CUSTOMER ORDER NO. _____ SPECIFICATION _____

EQUIPMENT I.D. _____ MODEL NO. _____ SERIAL NO. _____

TECHNIQUE CHECK ONLY THOSE APPLICABLE	
WET METHOD	☐
FLUORESCENT	☐
DRY METHOD	☐
VISIBLE	☐
E METHOD	☐
PROD METHOD	☐
CABLES/COIL	☐
CURRENT AC ☐ DC	☐
AMPERAGE	☐

SKETCH OF ITEM / WELD

ITEM/WELD I.D.	DESCRIPTION	ACCEPT	REJECT	COMMENTS

INSPECTOR _____ WORK HRS _____

TRAVEL HRS _____

ASSISTANT _____

MILEAGE _____

CLIENT _____ VEH # _____

MATERIALS USED: _____

MAGNETIC PARTICLE INSPECTION REPORT

MT

CHECK
- ☐ JSA Attached
- ☐ JSA Not Required
- ☐ Utilized Client's JSA

Owensby & Kritikos, Inc.

NEW ORLEANS DIVISION
671 Whitney Ave., Bldg. B
Gretna, La 70056
Telephone 504/368-3122
Fax 504/362-4546
E-mail gretna@ok-insp.com
Internet www.ok-insp.com

LAFAYETTE DIVISION
111 Lafferty Drive
Lafferty Industrial Park
Broussard, La 70518
Telephone 337/837-9721
Fax 337/837-1316
E-mail lafayette@ok-insp.com

PAGE _____ OF _____

DATE _____

CUSTOMER _____ LOCATION _____

JOB DESCRIPTION _____

CONTRACTOR _____ JOB NO. _____

CUSTOMER ORDER NO. _____ SPECIFICATION _____

EQUIPMENT I.D. _____ MODEL NO. _____ SERIAL NO. _____

TECHNIQUE CHECK ONLY THOSE APPLICABLE	
WET METHOD	☐
FLUORESCENT	☐
DRY METHOD	☐
[illegible]	☐
YOKE METHOD	☐
PROD METHOD	☐
CABLES/COIL	☐
CURRENT AC ☐ DC ☐	
AMPERAGE	

SKETCH OF ITEM / WELD

ITEM/WELD I.D.	DESCRIPTION	ACCEPT	REJECT	COMMENTS

INSPECTOR _____ WORK HRS _____
TRAVEL HRS _____

ASSISTANT _____

MILEAGE _____

CLIENT _____ VEH # _____

MATERIALS USED: _____

1196 Petroleum Pkwy
Broussard, LA 70518
Phone: (337) 837-1676
Fax: (337) 837-6599
www.fot.com

Calibration Verification

Report No. AOI/CAL.101

This document serves to verify that the following equipment(s) has been tested and calibrated to standards laid down by Acadiana Oilfield Instruments.

Customer: **SUPERIOR MANUFACTURING**

Vessel: **PH-60**

Report Date:	2/15/2013
Job No:	S54647
Model/Description:	GAUGE, PH60
Serial No:	237
Capacity:	2,500 PSI X 75,000 FT. LBS
Room Temperature:	72
Date of Calibration:	2/15/2013
Date of Next Calibration:	8/15/2013

Note: THE ABOVE IS CALIBRATED TO 2,500 PSI AT FULL SCALE

Method of Calibration

The Described item was calibrated using Pressure Gauge S/N AC-1048001 with certificate no. 6257 which is Traceable back to the National Institute of Technology.

Calibrated By: *BRADY COMEAUX*

BRADY COMEAUX - Service Technician

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0637BR- 3 INVOICE# 309186

DESCRIPTION 3/8" X 48" 3-K HOSE W/ MNPT E/E
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0637BR- 4

INVOICE# 309186

DESCRIPTION 3/8" X 48" 3-K HOSE W/ MNPT E/E
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY NOLAN ROBIN

WITNESSED BY KEN HAYNES

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0638BR- 3

INVOICE# 309186

DESCRIPTION 1/2" X 10' 3-K HOSE W/ MNPT E/E
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY NOLAN ROBIN

WITNESSED BY KEN HAYNES

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PD# S54950

SERIAL # 0638BR- 4

INVOICE# 309186

DESCRIPTIDN 1/2" X 10' 3-K HOSE W/ MNPT E/E
W/ HDSE GUARD AND TAG

WDRKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CDNDUCTIVITY TESTED OK

TESTED BY NOLAN ROBIN

WITNESSED BY KEN HAYNES

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0639BR- 2

INVOICE# 309186

DESCRIPTION 1/4" X 30" 3-K HOSE W/ MPT X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0640BR- 3 INVOICE# 309186

DESCRIPTION 1/4" X 16" 3-K HOSE W/ FJIC E/E
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0640BR- 4

INVOICE# 309186

DESCRIPTION 1/4" X 16" 3-K HOSE W/ FJIC E/E
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0641BR- 2

INVOICE# 309186

DESCRIPTION 1/4" X 46" 3-K HOSE W/ FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0642BR- 2 INVOICE# 309186

DESCRIPTION 1/4" X 53" 3-K HOSE W/ FJIC E/E
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0643BR- 3

INVOICE# 309186

DESCRIPTION 3/8" X 13" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY NOLAN ROBIN

WITNESSED BY KEN HAYNES

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0643BR- 4 INVOICE# 309186

DESCRIPTION 3/8" X 13" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0644BR- 3 INVOICE# 309186

DESCRIPTION 3/8" X 17.5" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0644BR- 4

INVOICE# 309186

DESCRIPTION 3/8" X 17.5" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0645BR- 2 INVOICE# 309186

DESCRIPTION 3/8" X 55" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0646BR- 2 INVOICE# 309186

DESCRIPTION 3/8" X 64.5" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0647BR- 2 INVOICE# 309186

DESCRIPTION 3/8" X 24" 3-K HOSE W/ FJIC X 1/2"FJ90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING PO# S54950

SERIAL # 0648BR- 3 INVOICE# 309186

DESCRIPTION 1/2" X 12.5" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000 TEST PRESSURE 4,500

BURST PRESSURE 12000 SERVICE HYDRAULIC

Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

ELECTRICAL CONDUCTIVITY TESTED OK

TESTED BY *NOLAN ROBIN*

WITNESSED BY *KEN HAYNES*

SPARTAN
INDUSTRIAL PRODUCTS

HYDROSTATIC HOSE TEST REPORT

DATE 05/01/13

CUSTOMER NAME SUPERIOR MANUFACTURING

PO# S54950

SERIAL # 0648BR- 4

INVOICE# 309186

DESCRIPTION 1/2" X 12.5" 3-K HOSE W/FJIC X FJIC90
W/ HOSE GUARD AND TAG

WORKING PRESSURE 3,000

TEST PRESSURE 4,500

BURST PRESSURE 12000

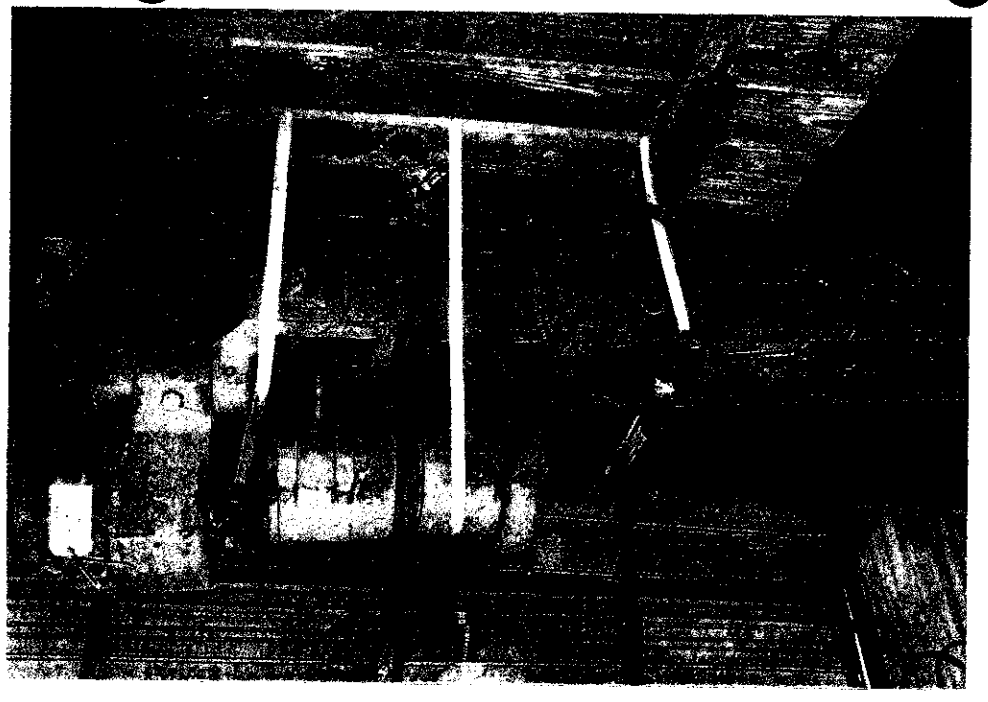
SERVICE HYDRAULIC

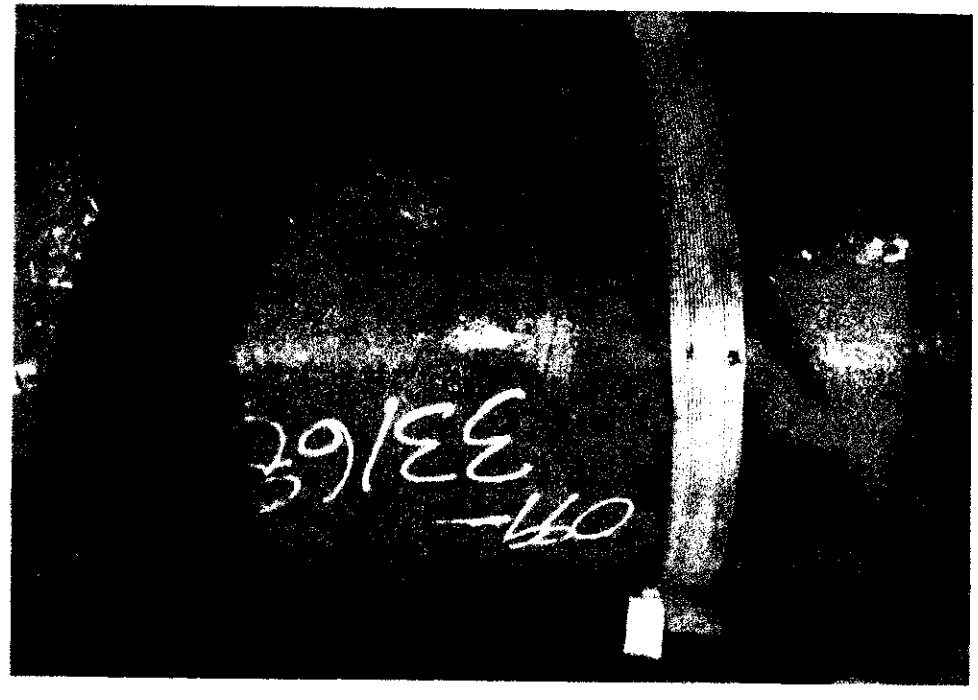
Hose meets or exceeds the requirements as specified by Title 33 in Coast Guard Federal Register 154.500 which refers to CFR 75-124, 45 FR7121, Jan. 31, 1980

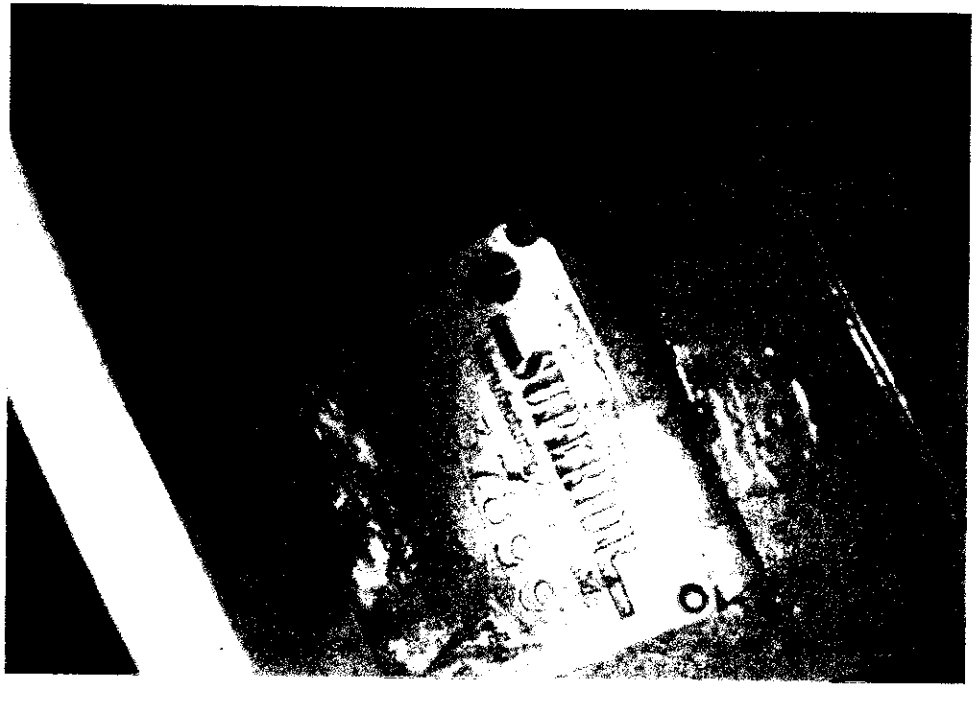
ELECTRICAL CONDUCTIVITY TESTED OK

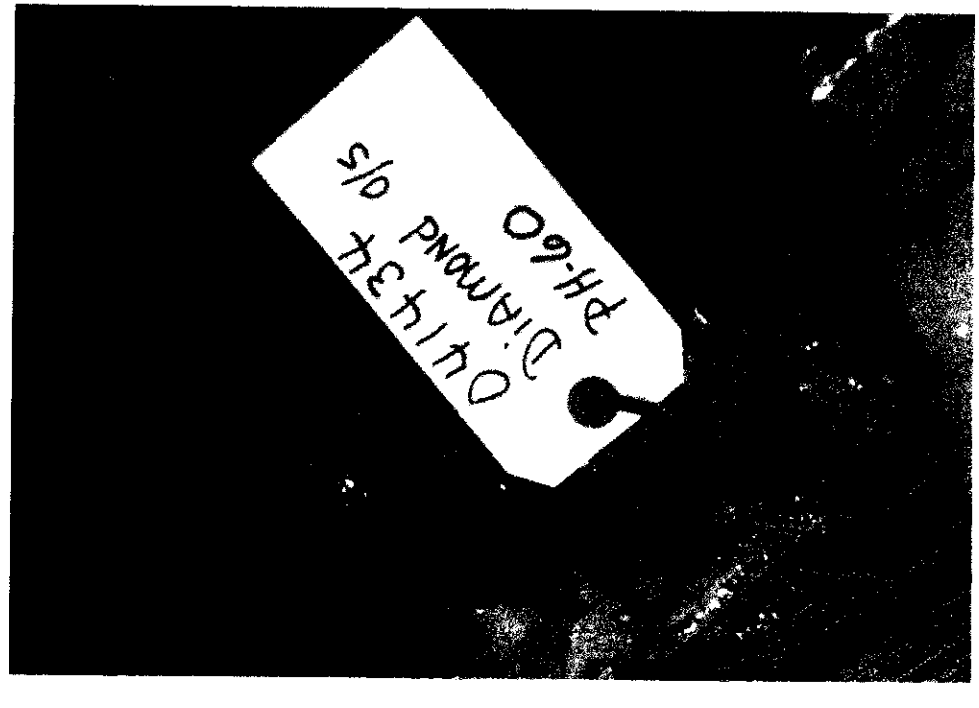
TESTED BY NOLAN ROBIN

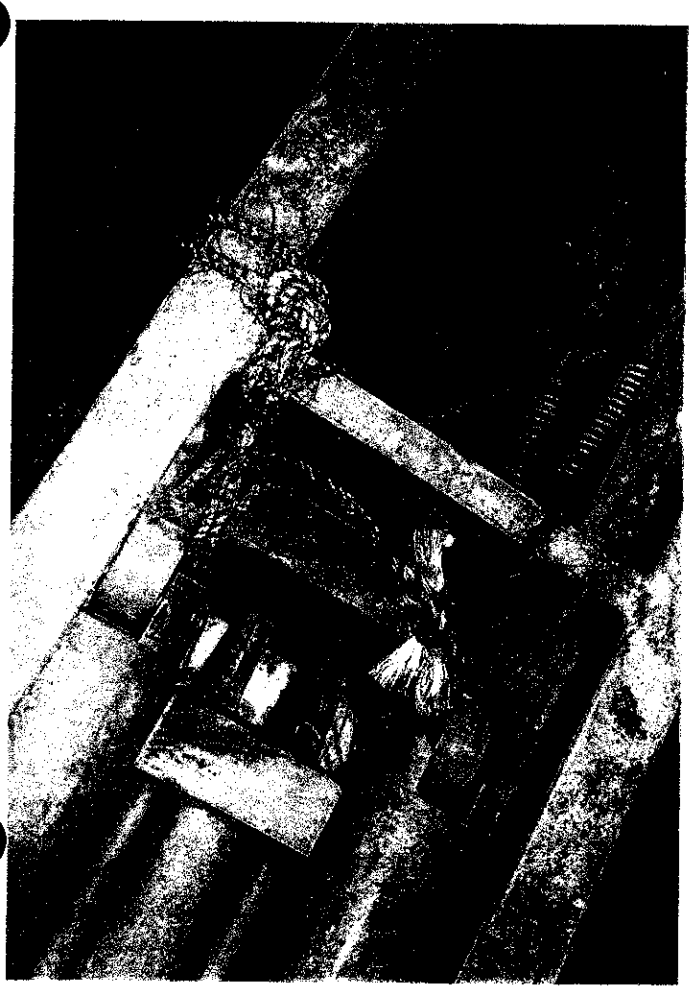
WITNESSED BY KEN HAYNES

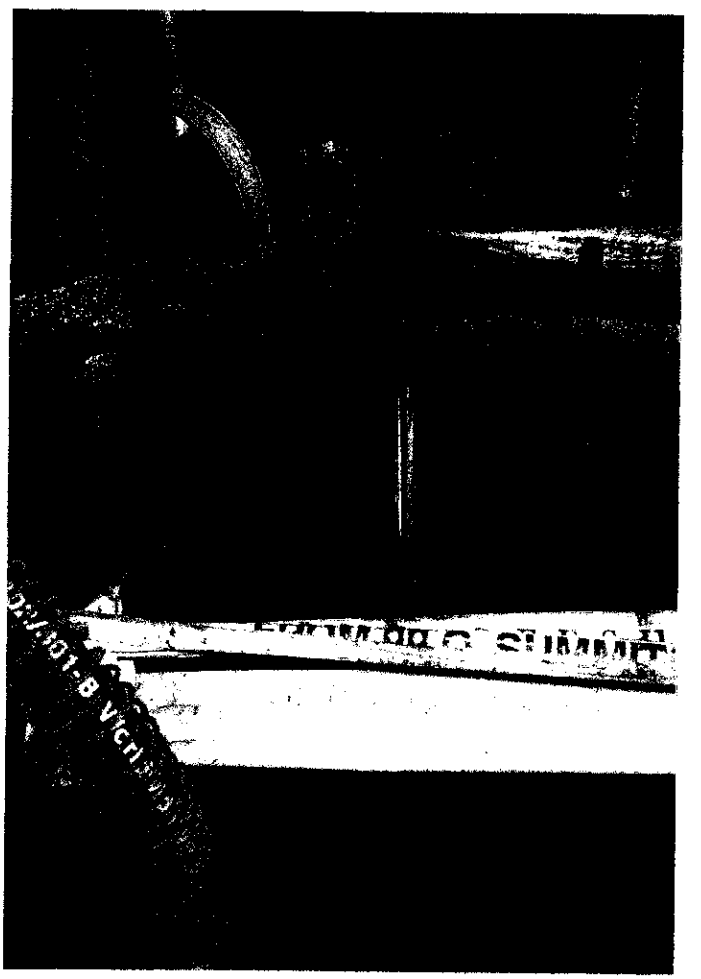


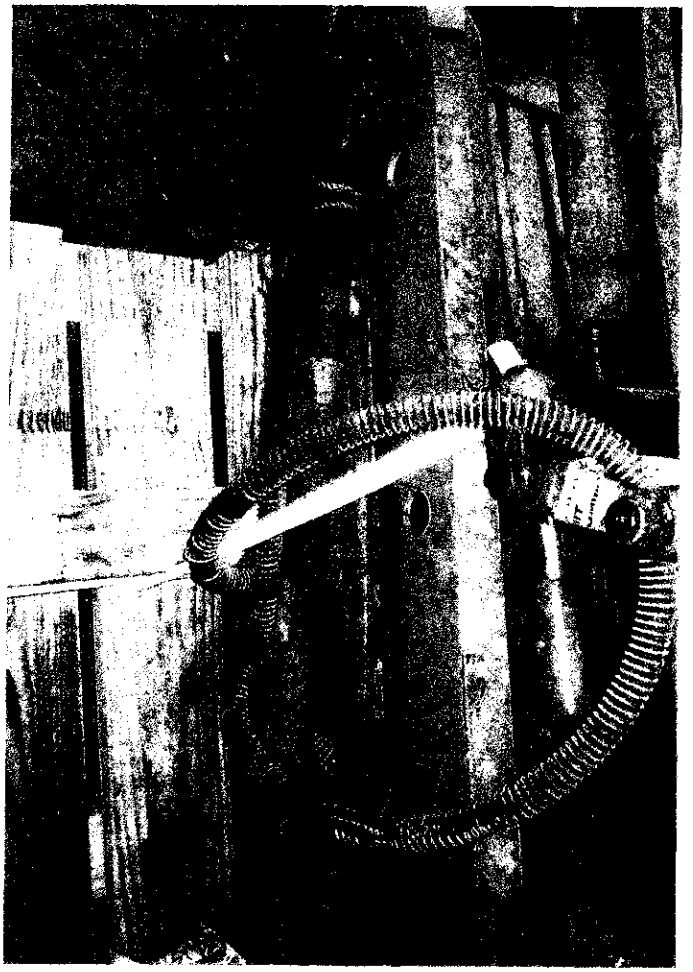

391EE
-60

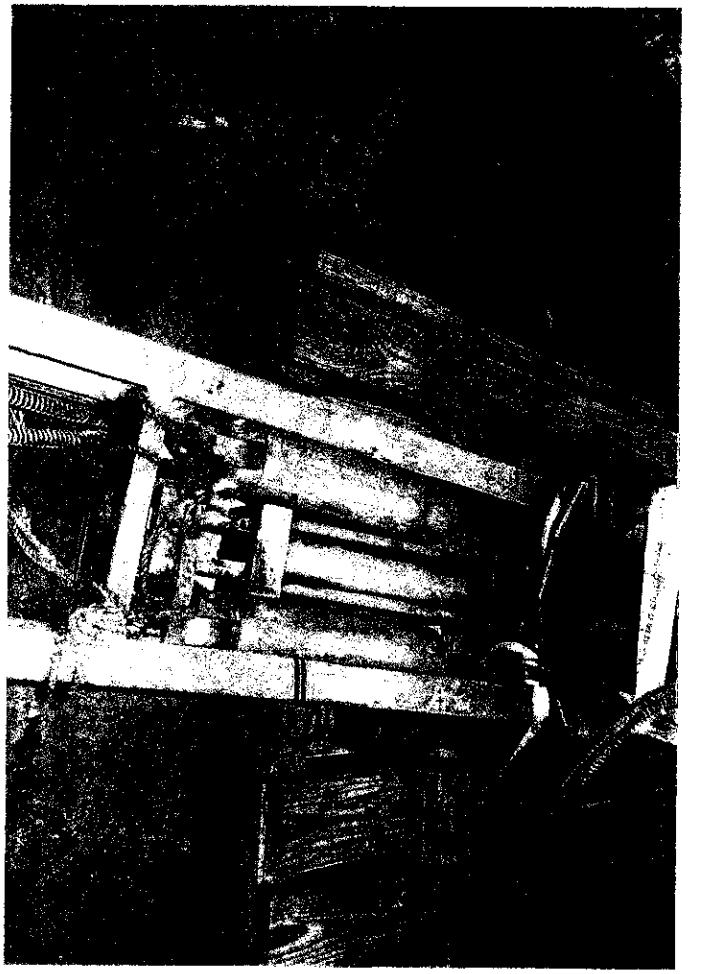


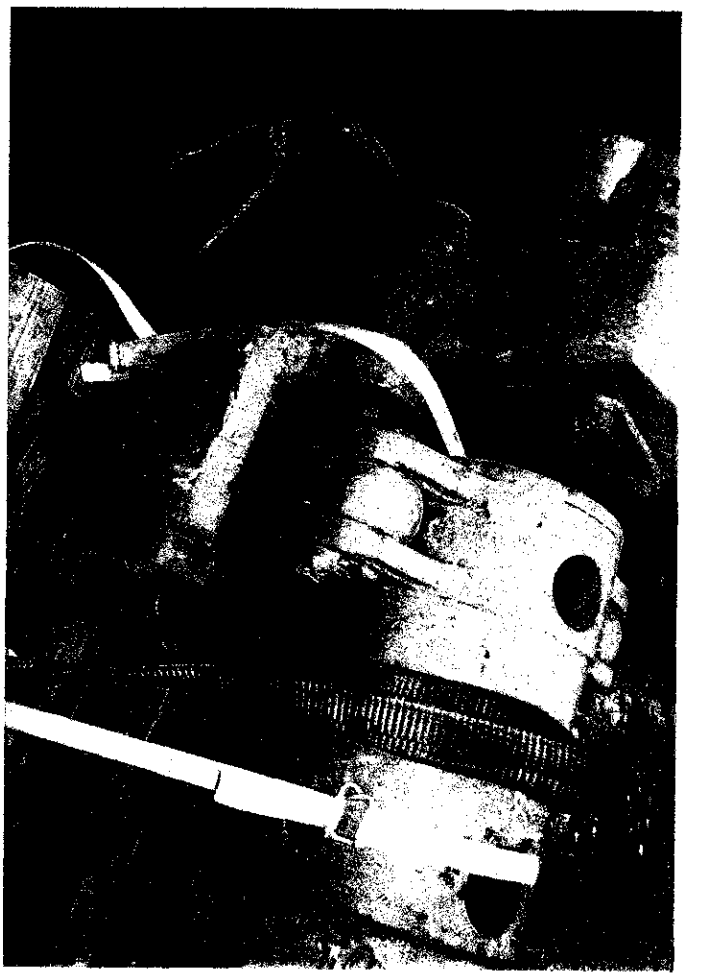

OUTSIDE
DIAMOND O/S
PH-60

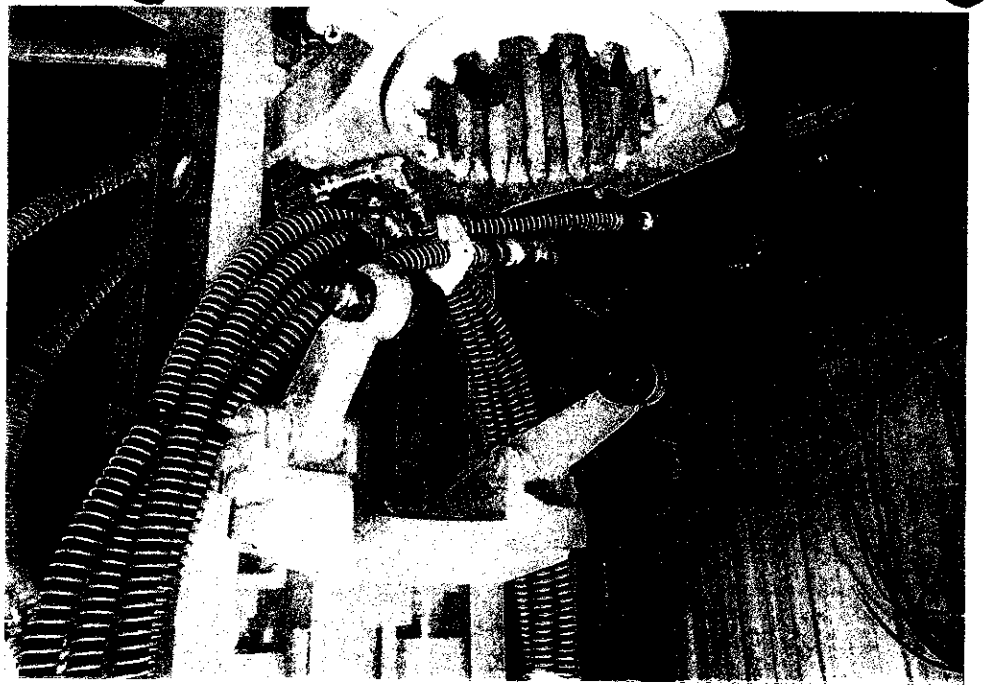


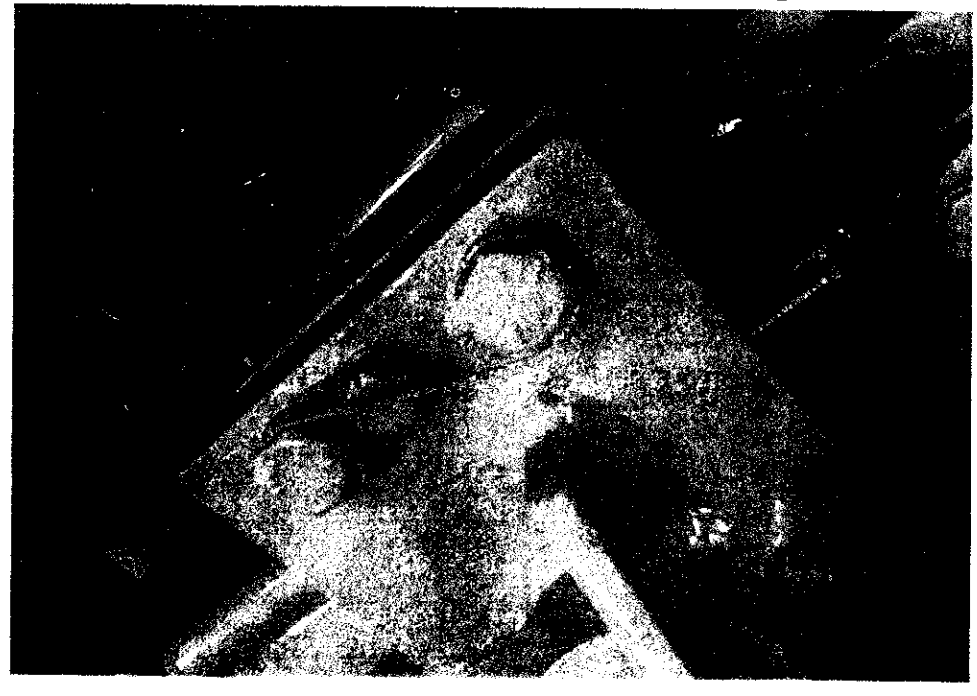


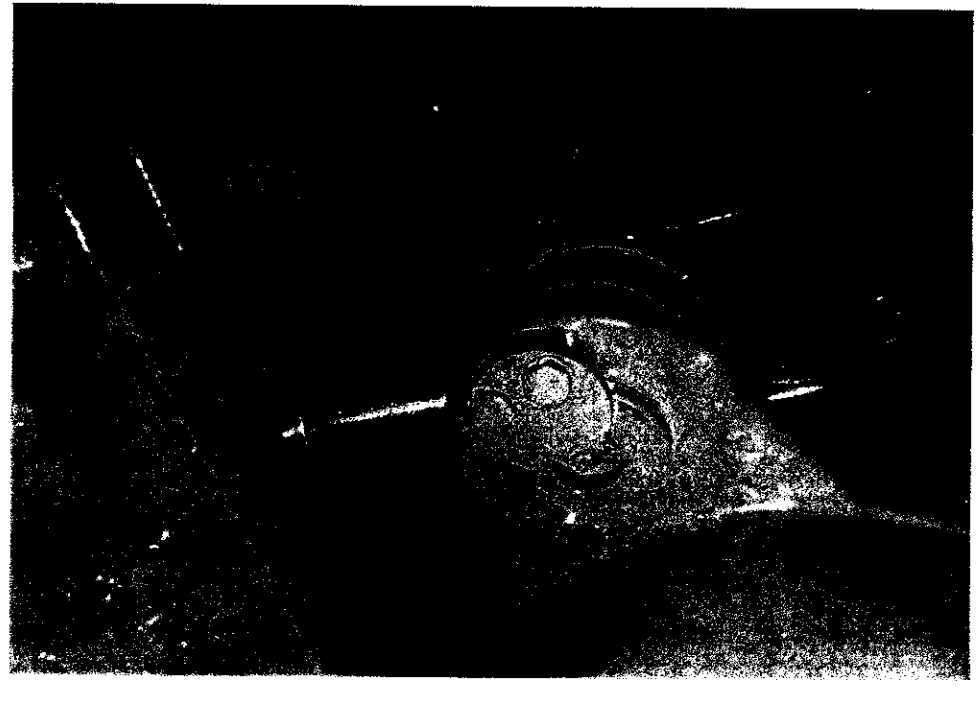


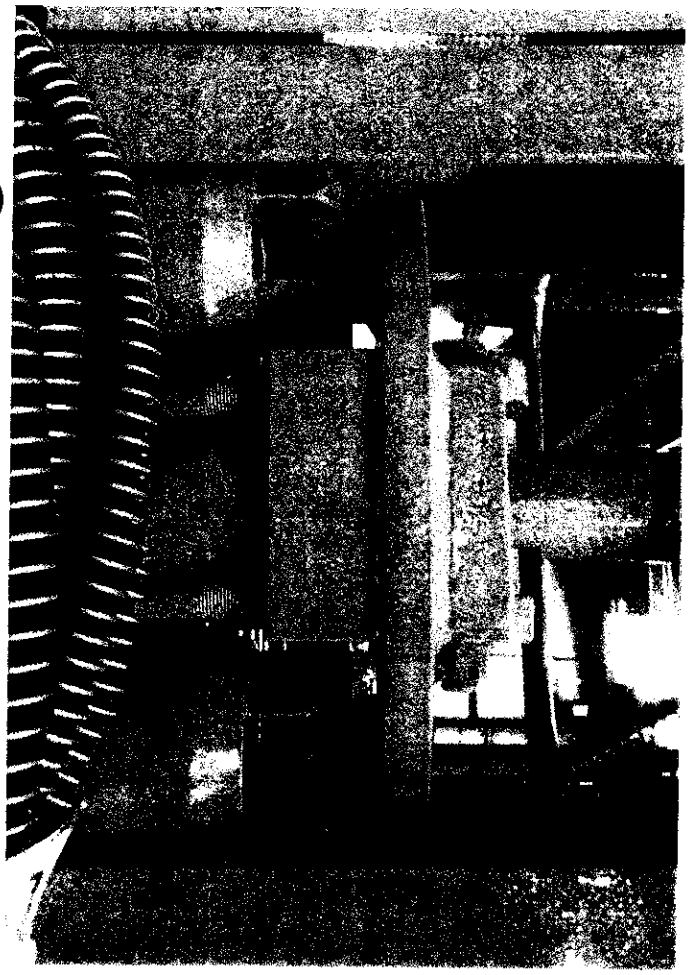


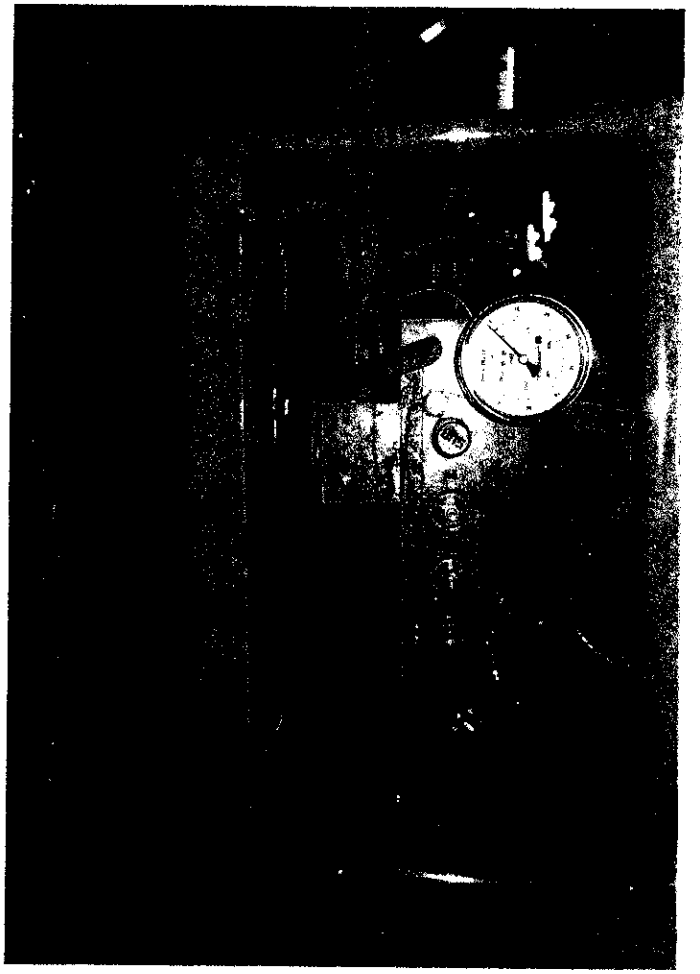


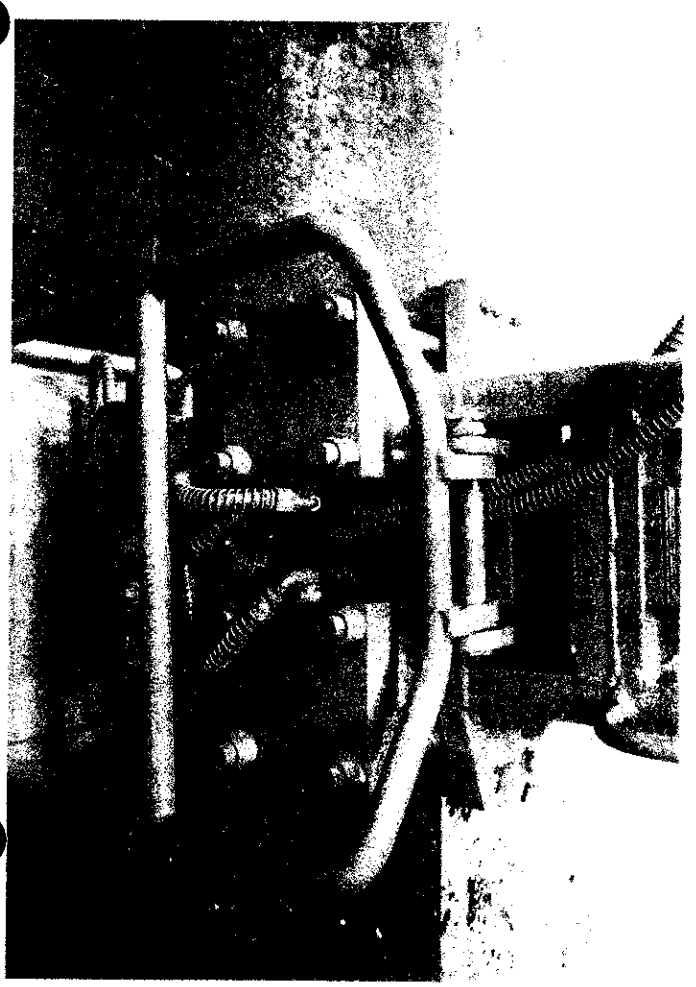


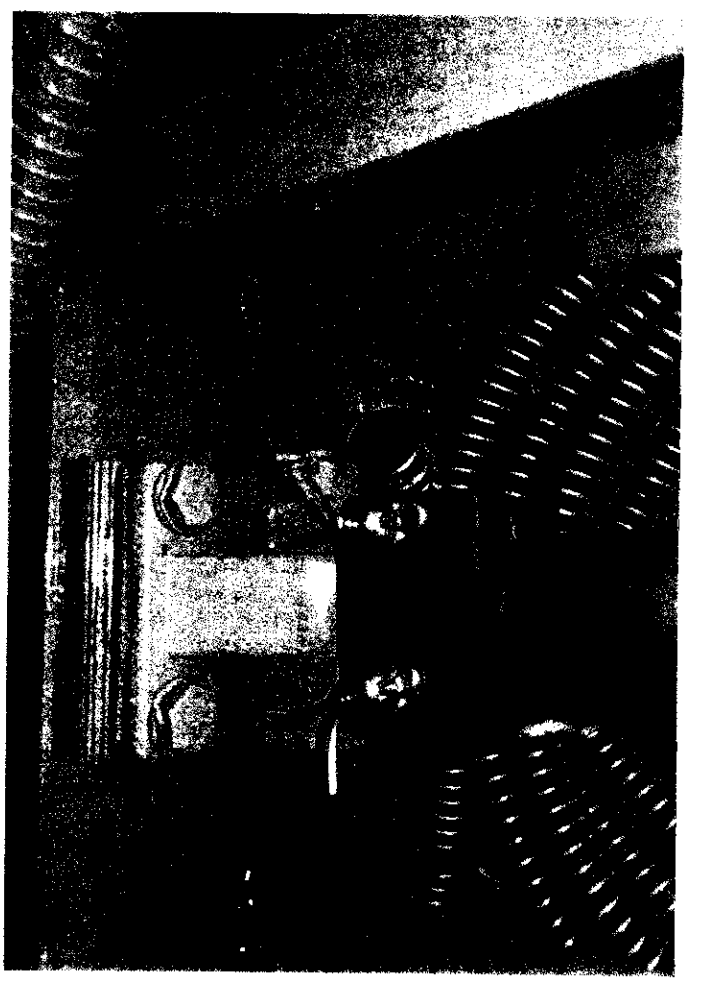


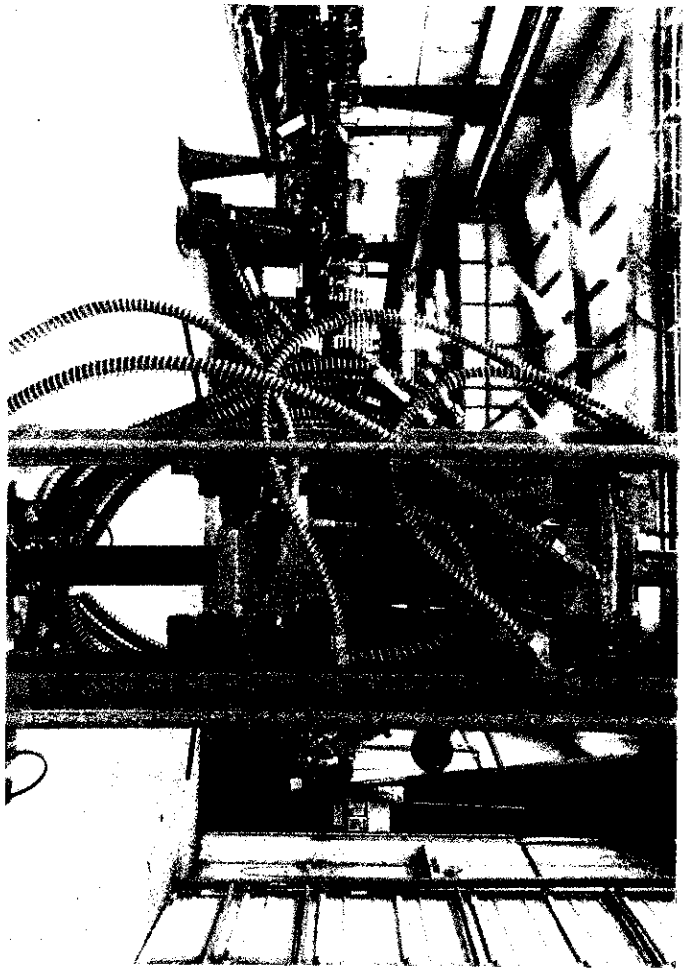


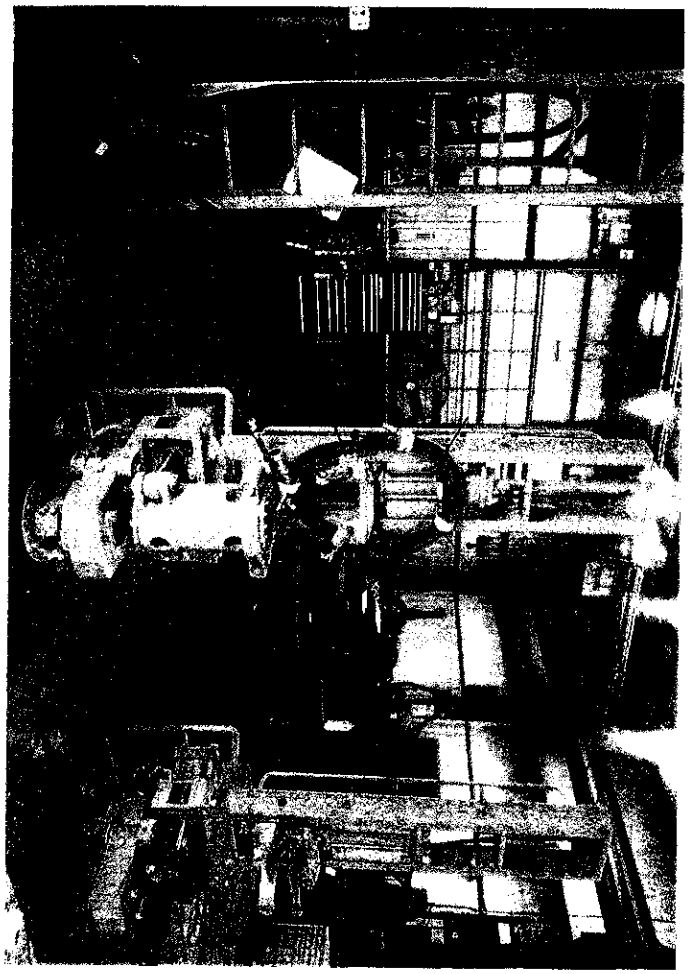


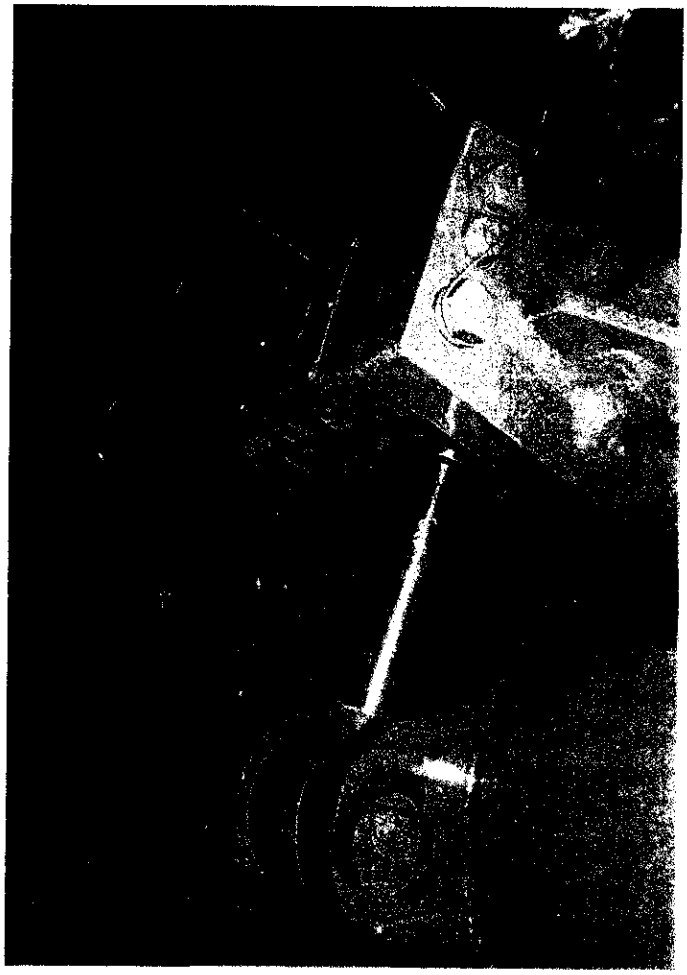


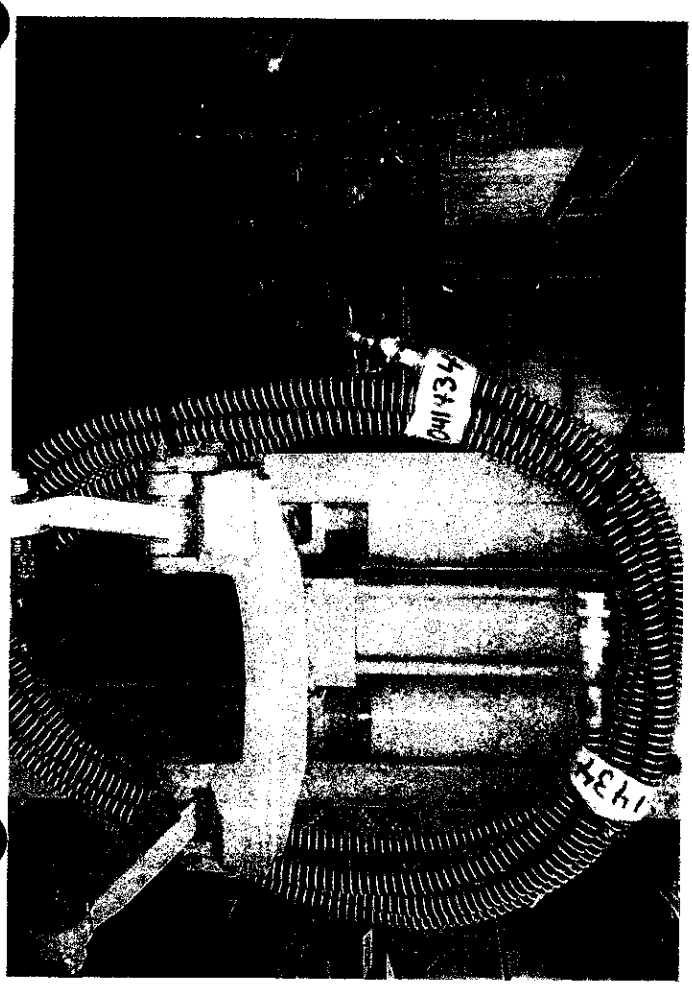











1437