

TEI MAST PCFH30 ATTACHMENT

Weight: 6,800 lbs

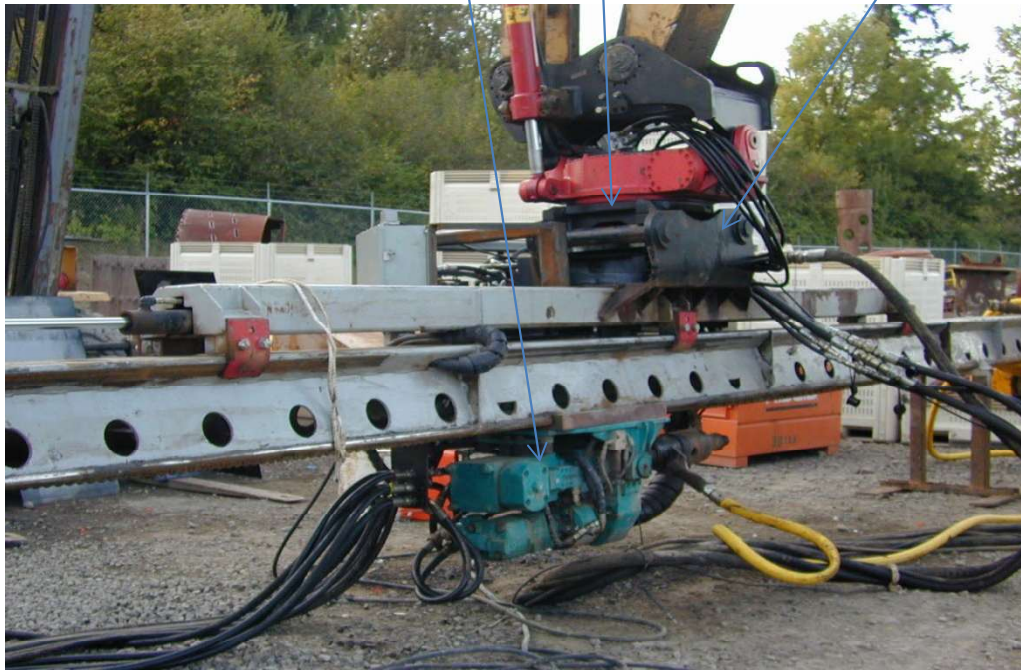
Total Overall Length:

3 Part Assembly listed as follows shown for informational purposes.

Part 1: PCFH30ED Mast (S/N PCFH30B031206) – TEI Mast with Beretta Hydraulic Double Clamp and Breaker, note model PCFH30 is = to model PCFH25 in push - pull specs.

Part 2: Drill Head - Eurodrill HD 4008 SS#400059 percussion drill head or rotary drill head

Part 3: Rototilt RT80-HS7024VASSY (S/N 080) Mount to Excavator S/N 080



TEI 30 PCFH Hydraulic Flows and Pressures

Optimal Hydraulic Pressure for drill head - 3000 PSI

Optimal Hydraulic Flow for Rotation - 40 GPM

Optimal Hydraulic Flow for
Percussion - 22.5 GPM

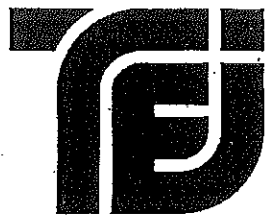
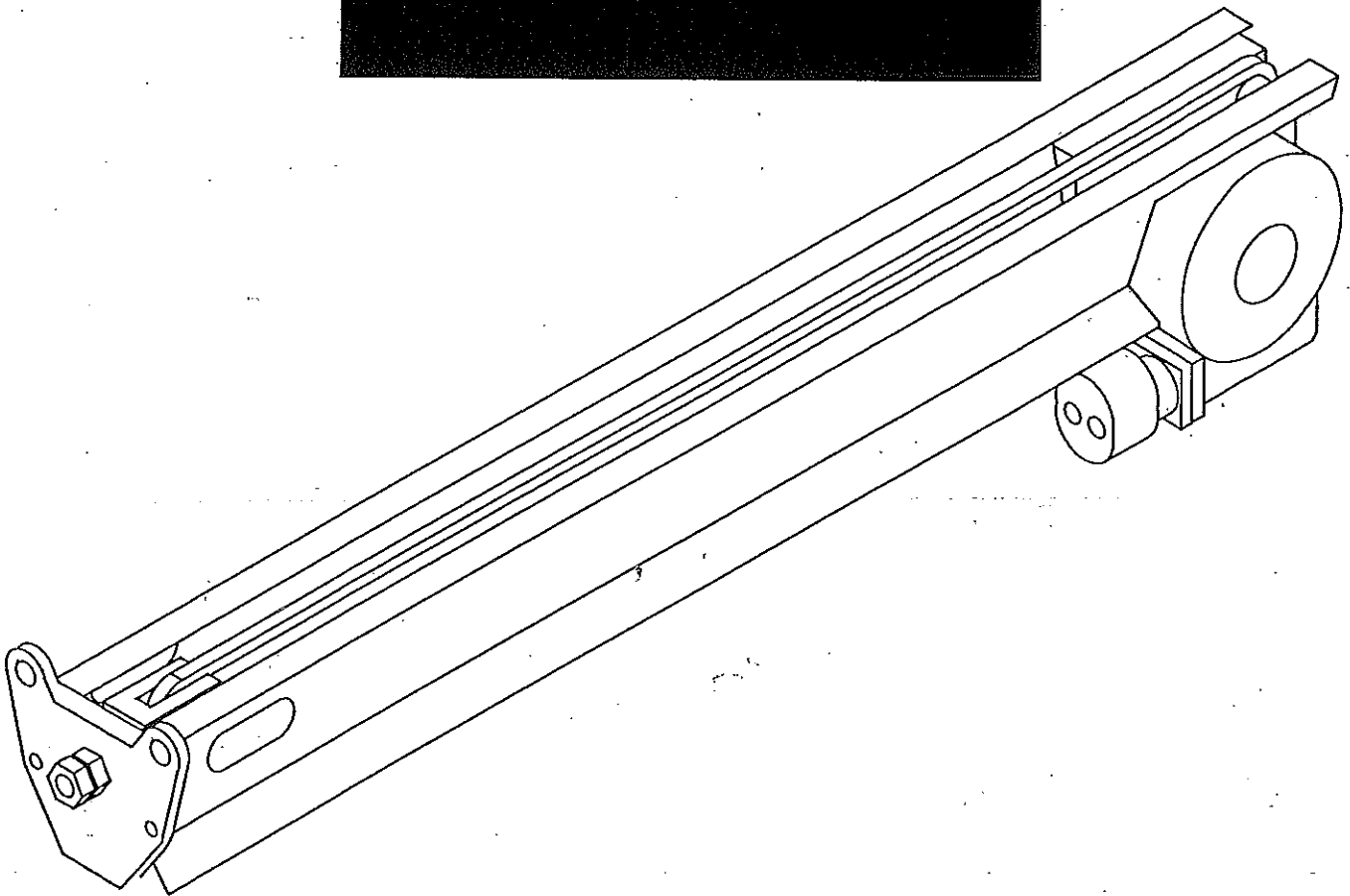
62.5 GPM Total for rotation and percussion

PARTS AND SERVICE MANUAL

Model: PDFH30ED SN#PCFH30B031206

Weight 6850 lb - 32'6" long, 6'6" wide, 5'3" tall

PCFH HYDRAULIC CHAIN FEED

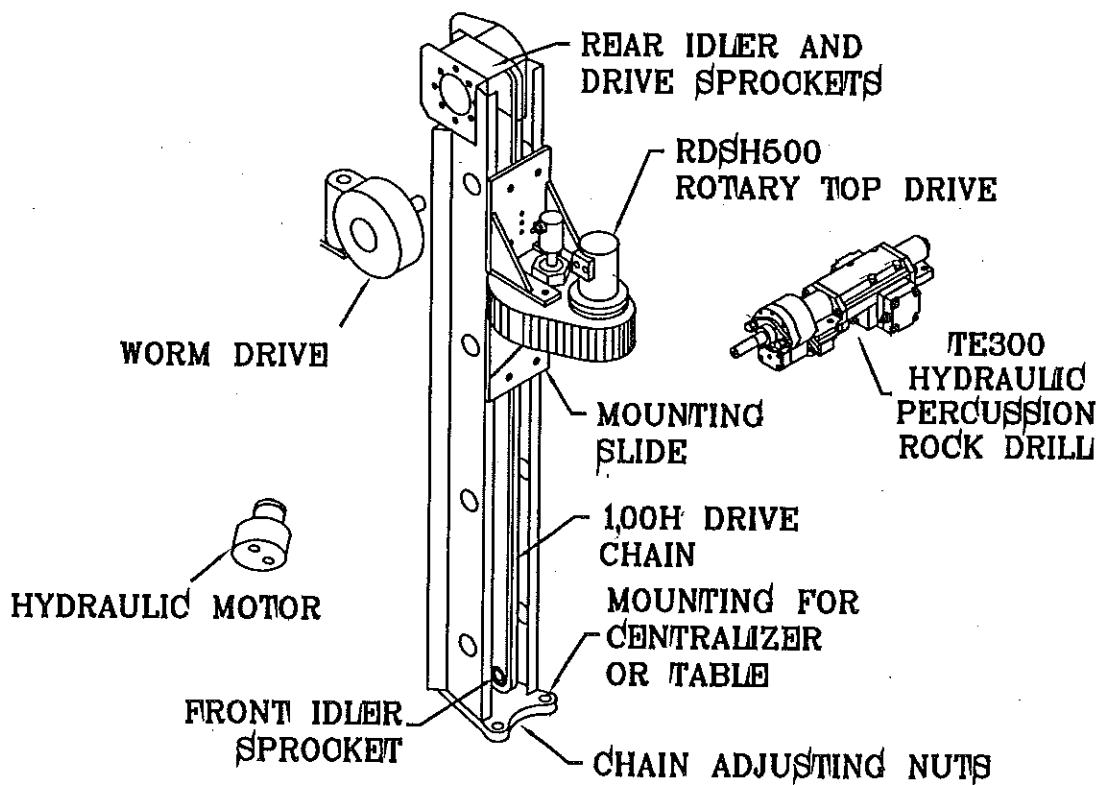


TEI ROCK DRILLS
MONTROSE, COLORADO

SERVICE AND MAINTENANCE MANUAL PCFH CHAIN FEEDS

The PCFH series geared chain feeds use a worm gear drive to transmit rotary power from a hydraulic motor to a mounting slide. The mounting slide supports either a rotary top drive or a percussion drill. Thus this one feed design can be used for many different applications.

Operation of the feed is simple. As shown below, a single reduction worm drive is used to mount a hydraulic motor for power. The output shaft has a sprocket drive for the chain. The chain is looped with a mounting slide attached at any point. The mounting slide can be adapted for many different configurations.



PCFH STYLE FEED SHOWING GENERAL LAYOUT AND SOME OF THE OPTIONS

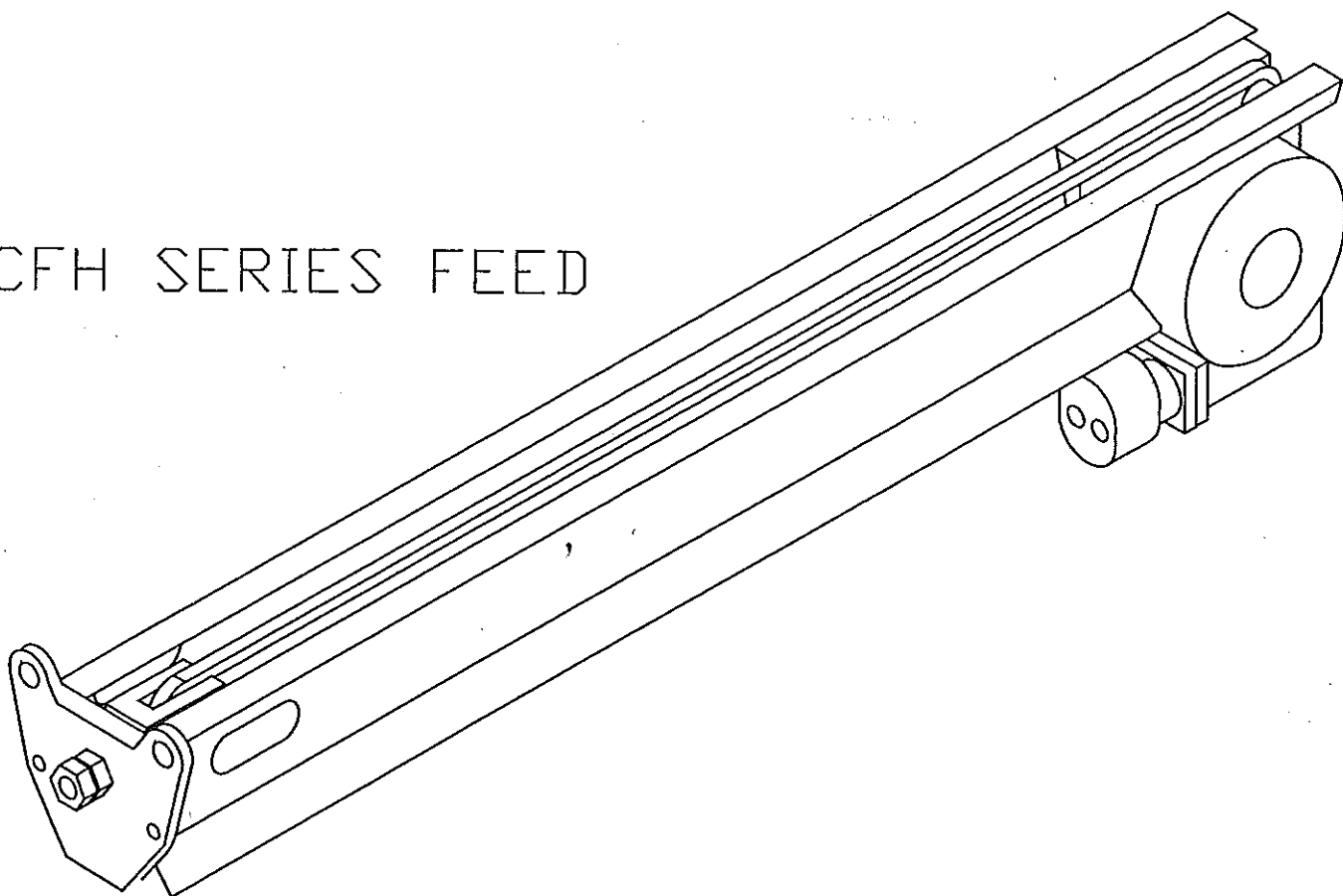
The drilling feed force is proportional to pressure up to a maximum of 12,000 lbs (5455 kg-f). Retraction force out of the hole is the same as above. Feed force is controlled using pressure. The worm drive cannot be back driven and the feed will hold any load without the use of brakes.

Any drill up to 1000 lbm (454 kg) can be mounted. Contact TEI for specific drill mounting requirements. Rotary drilling of up to 12" (15.2 cm) diameter holes is possible. Percussion drilling of up to 5" (12.7 cm) diameter holes is possible.

PCFH feeds are designated by length and application. PCFH12 designates a feed having 13 feet (4.0m) of total drill travel. This allows the use of up to 12 foot (3.7m) drill steel during steel change. The total length of the feed is 4' (1.2m) longer than 12' or a total length of 16' (4.9m).

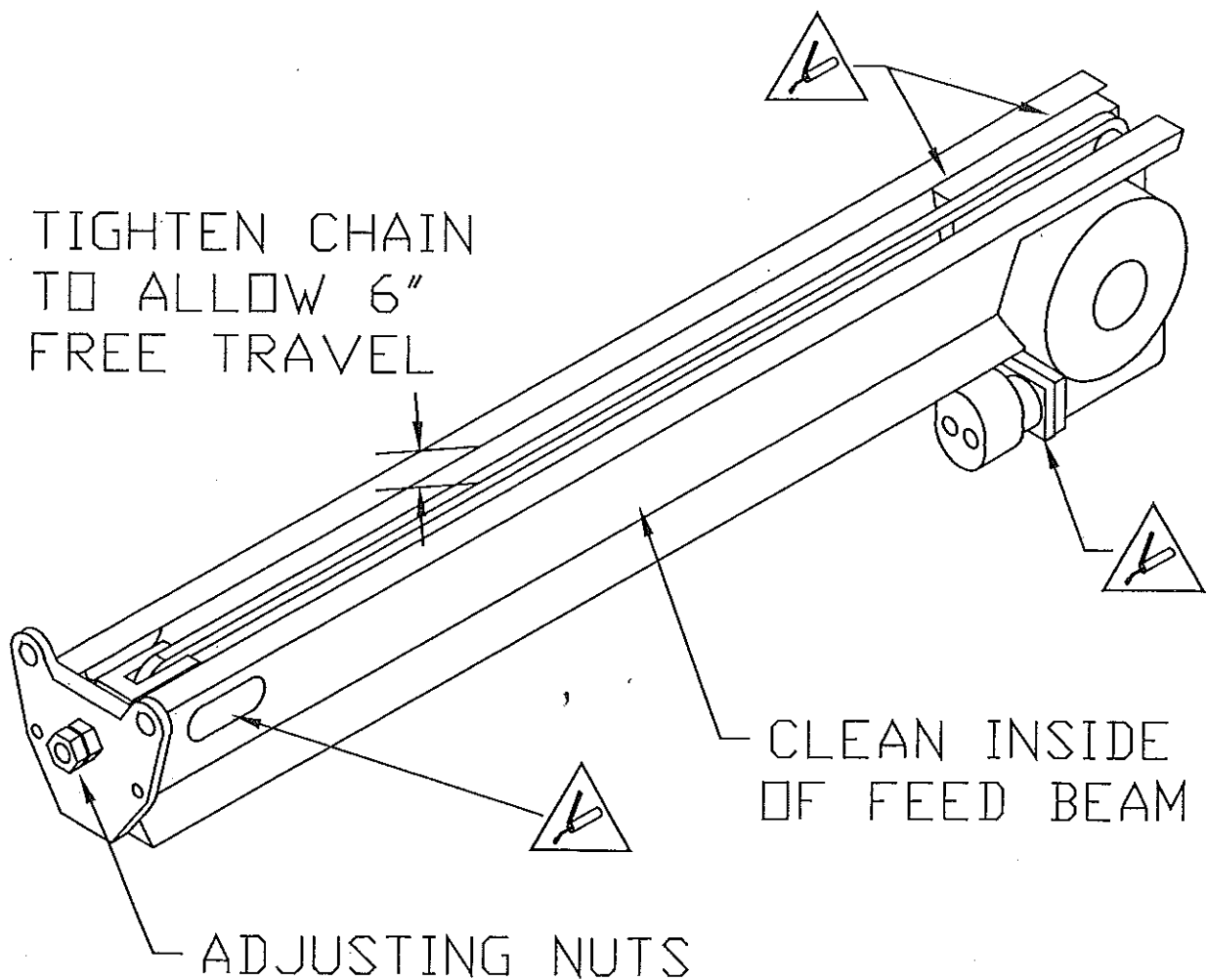
The above feeds are available in drilling steel change lengths from 4' (1.2m) to 20' (6.2m) in 2' (.6m) increments. The length designation is PCFH4 to PCFH20.

PCFH SERIES FEED



DAILY MAINTENANCE

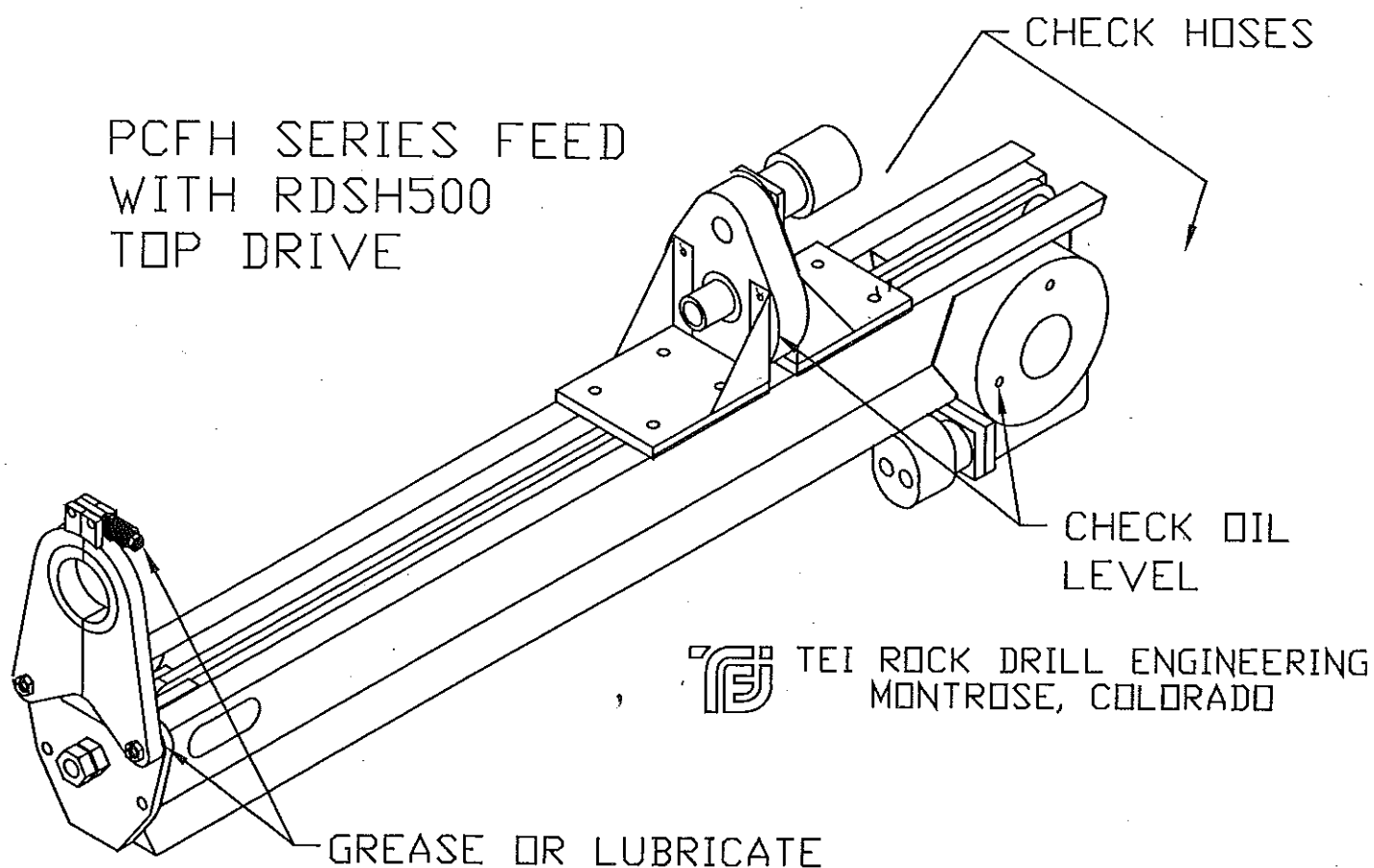
Clean and inspect feed. Check the drive chain tension by moving the drill forward or backward on the feed to either end. With the drill pressure off (wobble the control lever to release all pressure), the chain should be lightly tensioned (be able to lift the chain about 6" (15cm)). If adjustment is required, use a wrench on the adjusting clevis to achieve the recommended chain tension. Remove rocks from inside the feed structure. Check dust shields at centralizer. Grease front and rear idler sprockets. Pump grease until excess flows out around sprocket. Keeping the internal feed beam clean extends slide and chain life. Use a rubber shield to deflect drilling chips and debris from the feed mast and chain.



DAILY MAINTENANCE DIAGRAM

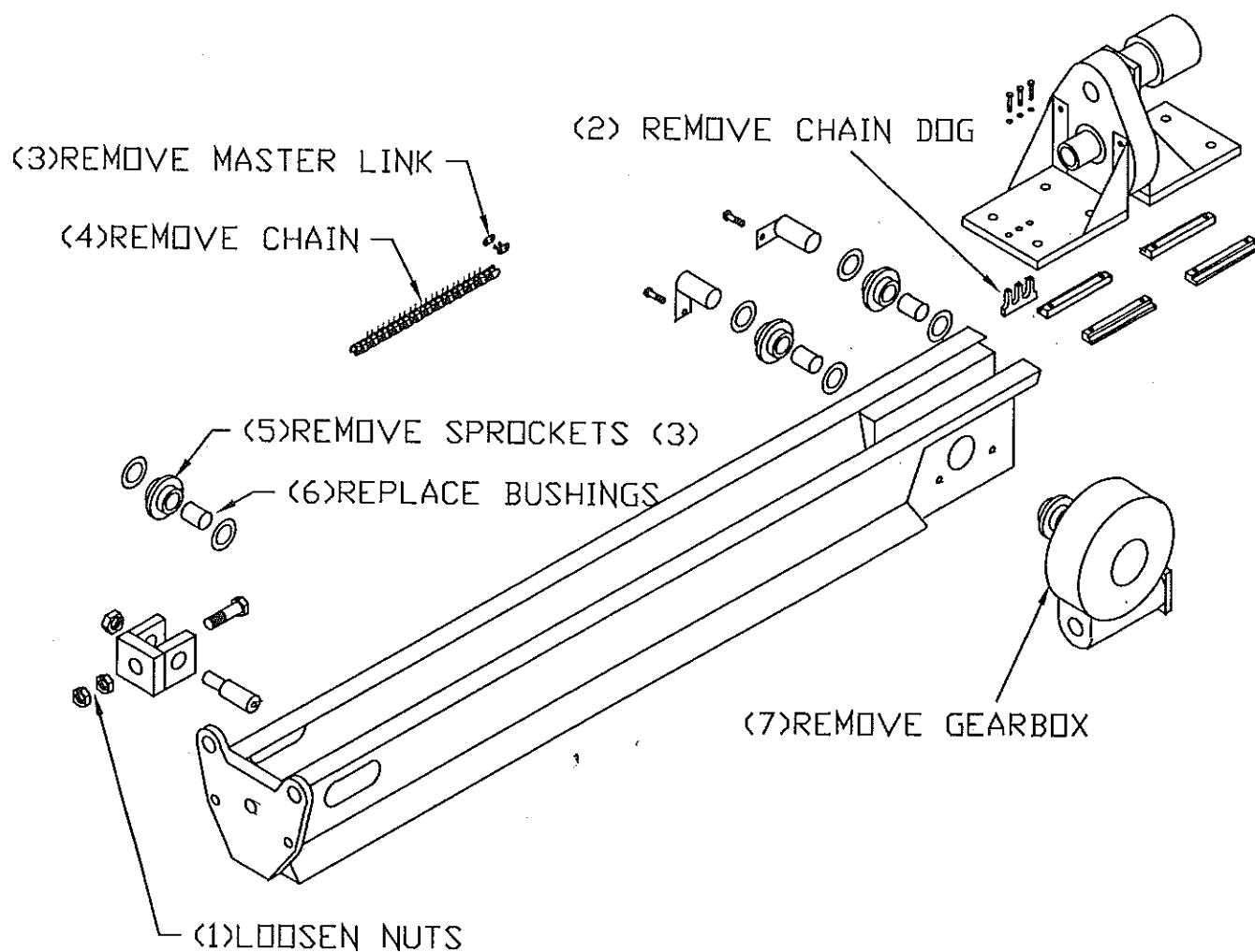
WEEKLY MAINTENANCE

In addition to the daily routine, grease the front centralizer arms (when used). Check pneumatic and hydraulic fittings for leaks and tighten as necessary.



REPLACING/REPAIRING DRIVE CHAIN

To service the drive chain, clean out the feed frame and remove the drill steel. Move the drill fully forward and shut down the hydraulic system. Neutralize all system pressure by wobbling the control levers. Loosen the chain with the adjusting nuts. Remove the chain dog by loosening the three attaching bolts. Locate the master link in the drive chain. If the master link is not accessible, start the drive system and move the chain to where the master link can be removed. Remove the master link and separate the drive chain. Feed the drive chain out of the drive and idler sprockets.



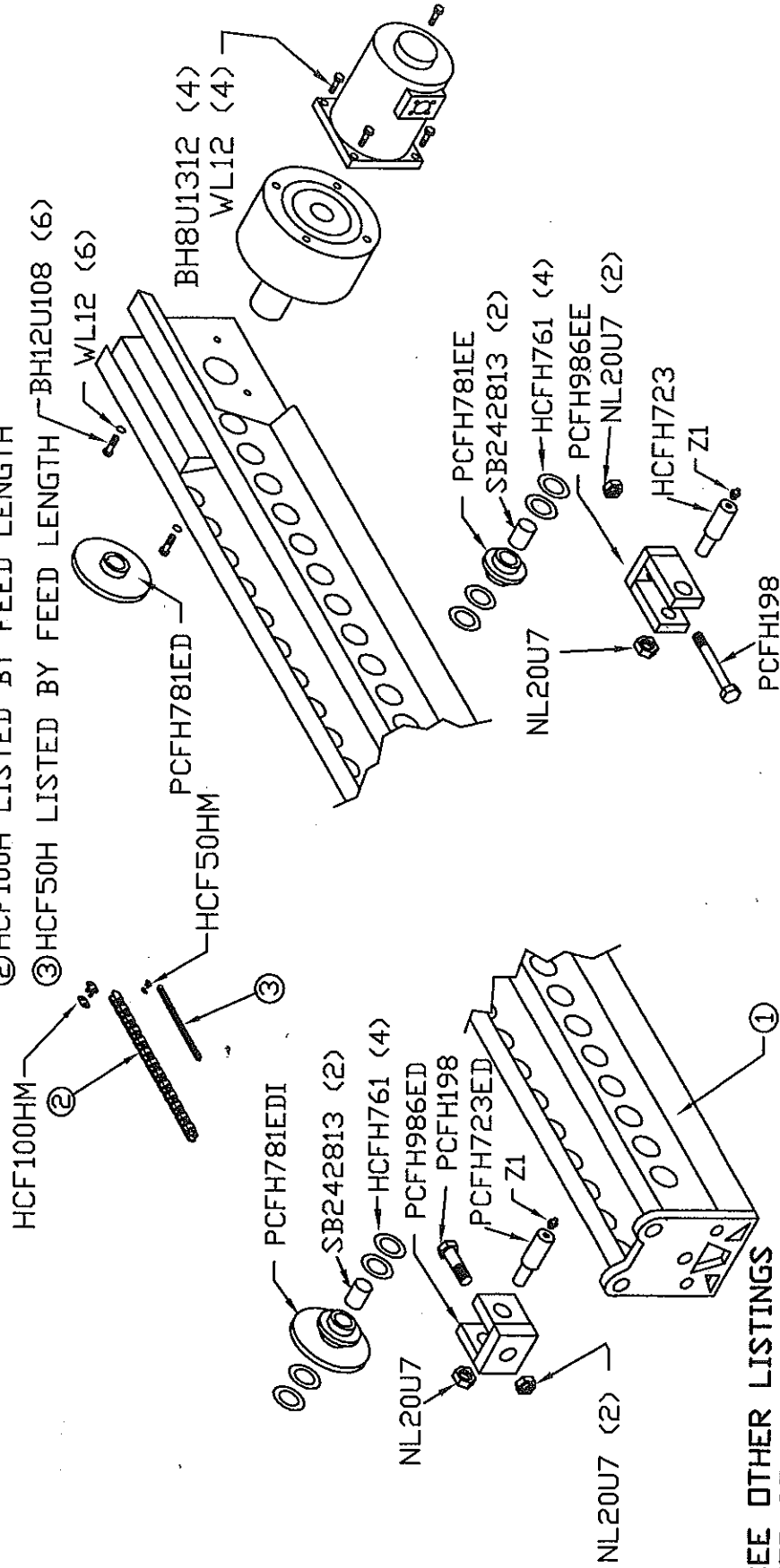
The front and rear idler sprockets can now be removed for service or replacement. The bushing in the idler sprockets can then be pressed out and replaced with a new bushing. Reassemble in the reverse order.

PCFH__ED SERIES FEED PARTS LISTING

① LISTED BY FEED LENGTH

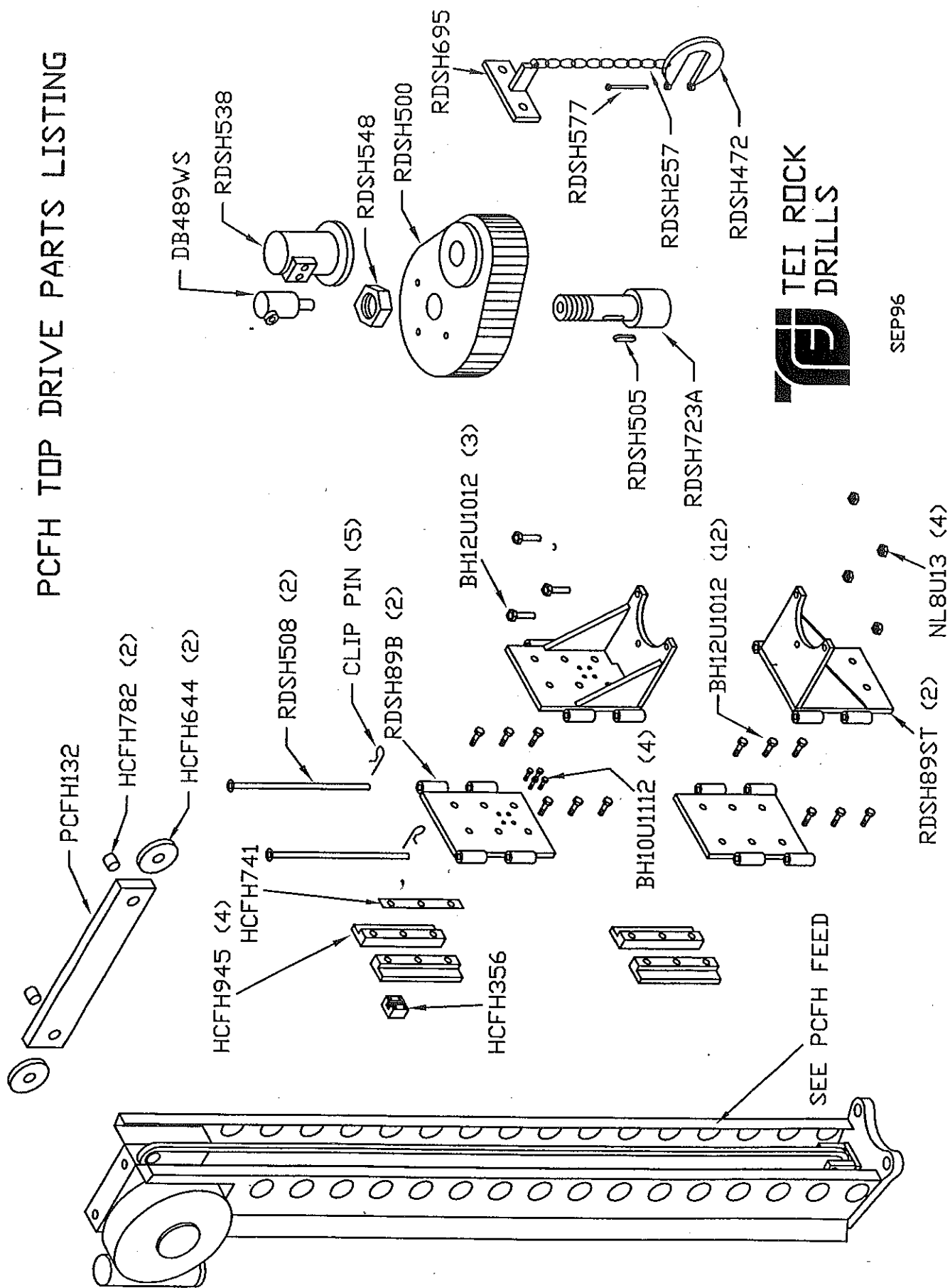
② HCF100H LISTED BY FEED LENGTH

③ HCF50H LISTED BY FEED LENGTH



SEE OTHER LISTINGS
FOR CENTRALIZER
AND DRIVE MOTOR
OPTIONS.

PCFH TOP DRIVE PARTS LISTING



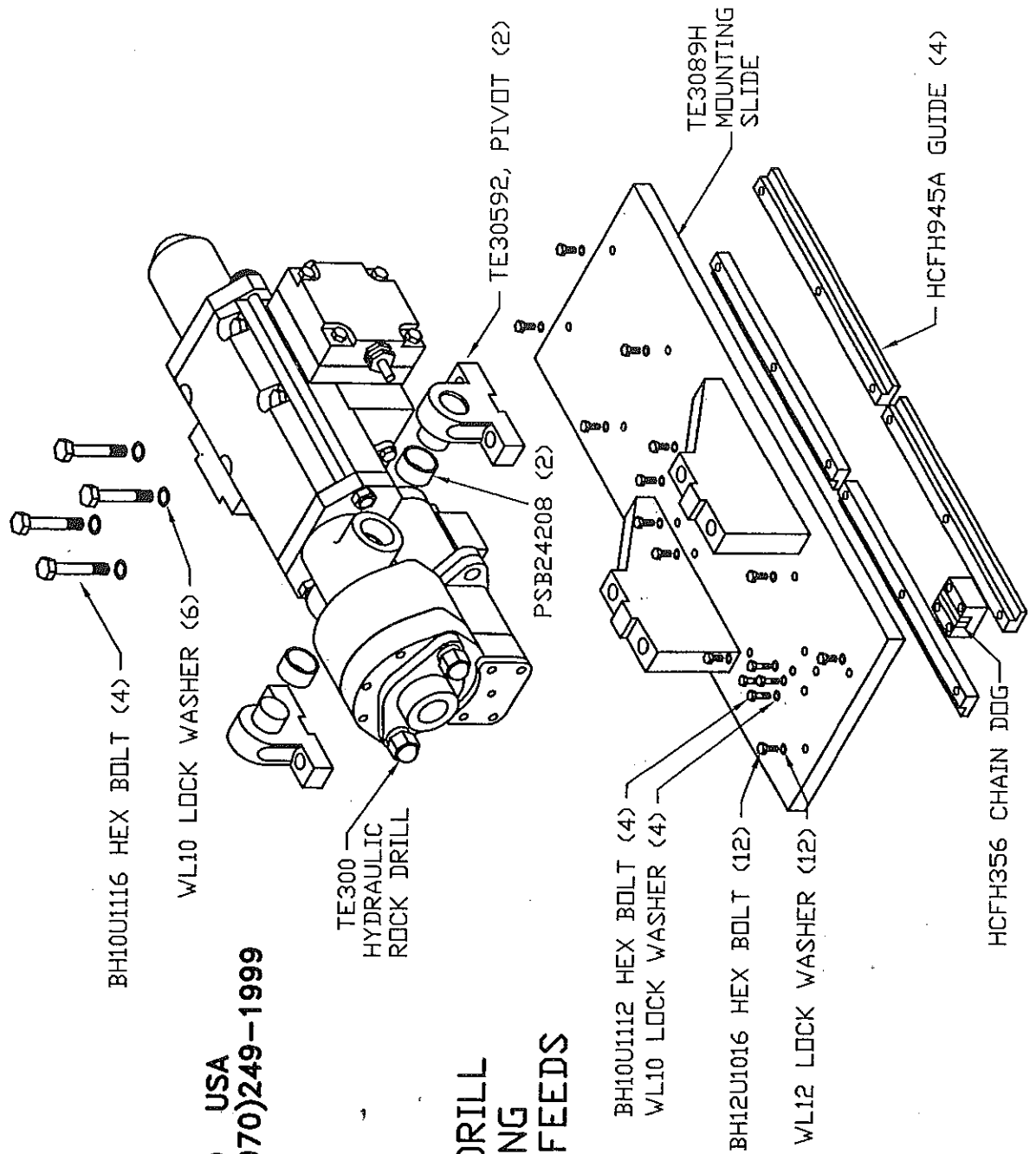
**TEI ROCK
DRILLS**

SEP96



TEI ROCK DRILLS
MONTROSE, COLORADO USA
(970)249-1515 FAX(970)249-1999

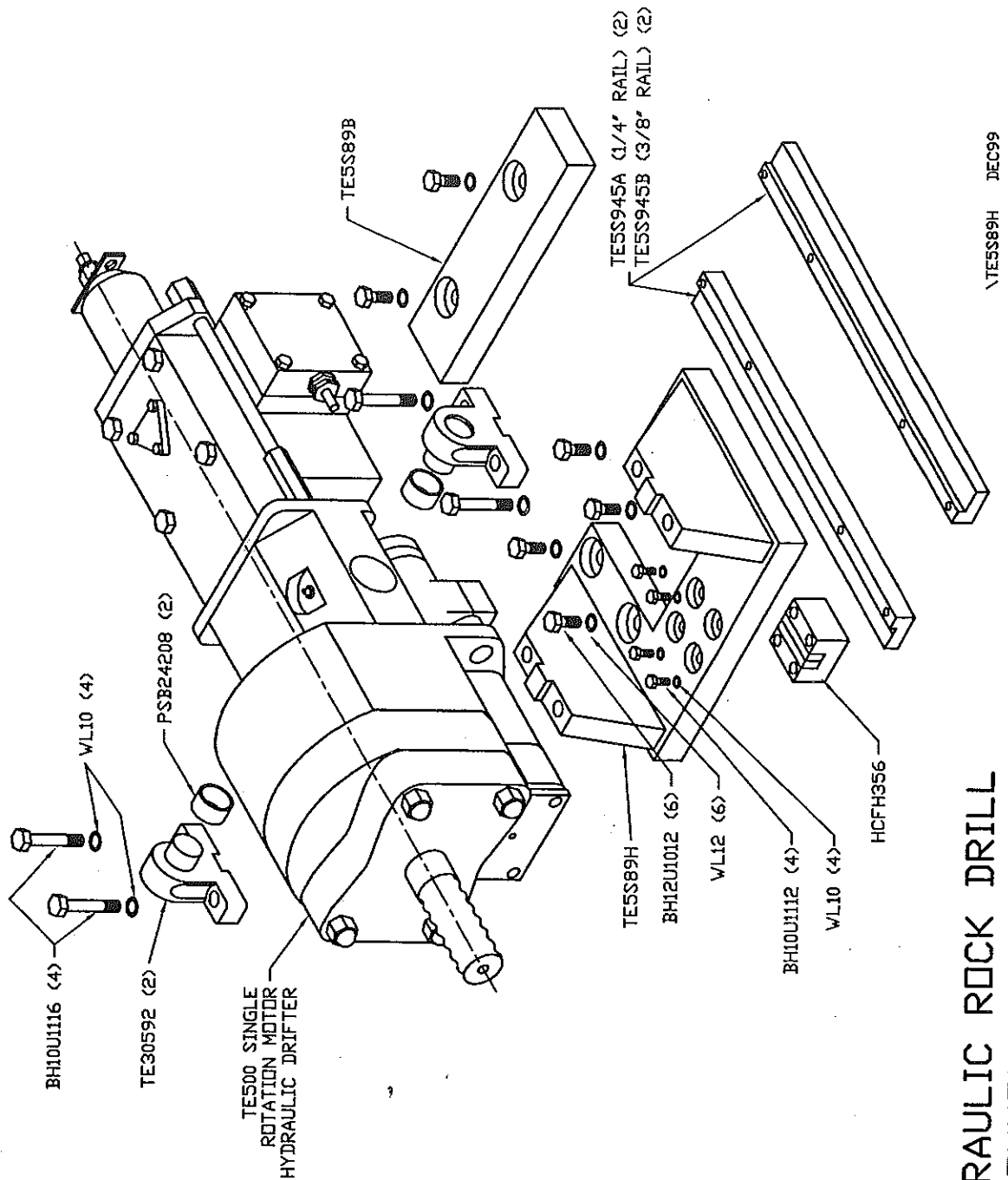
TE300 HYDRAULIC ROCK DRILL MOUNTING PARTS LISTING HCFH and PCFH SERIES FEEDS



TEI ROCK DRILL ENGINEERING
 MONTROSE, COLORADO USA
 PHONE (970)249-1515 FAX (970)249-1999



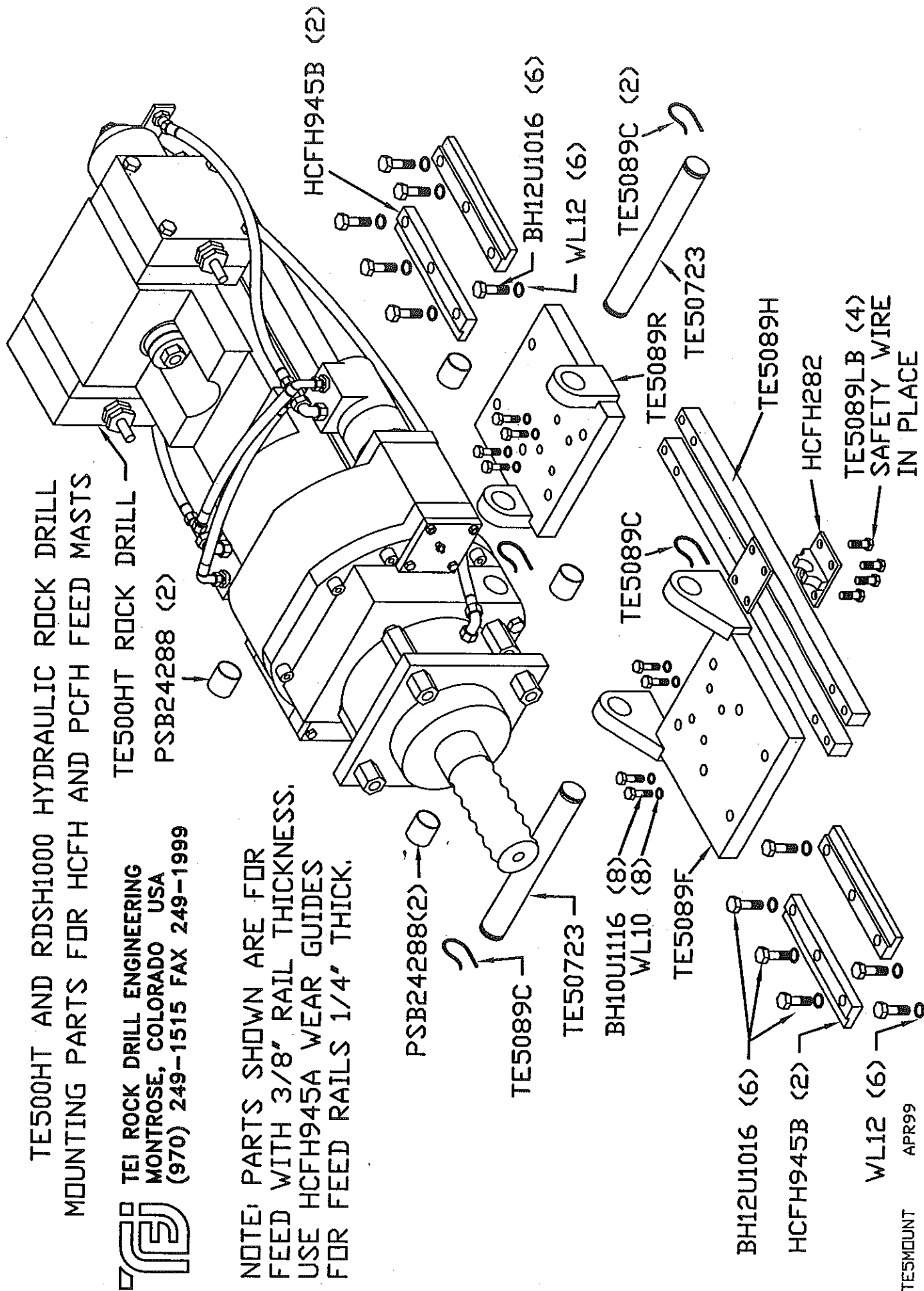
TE500 HYDRAULIC ROCK DRILL HCFH-PCFH MOUNTING PARTS LISTING



TESS89H DEC99

TE500HT AND RDSH1000 HYDRAULIC ROCK DRILL MOUNTING PARTS FOR HCFH AND PCFH FEED MASTS

TEI ROCK DRILL ENGINEERING
MONTROSE, COLORADO USA
(970) 249-1515 FAX 249-1999

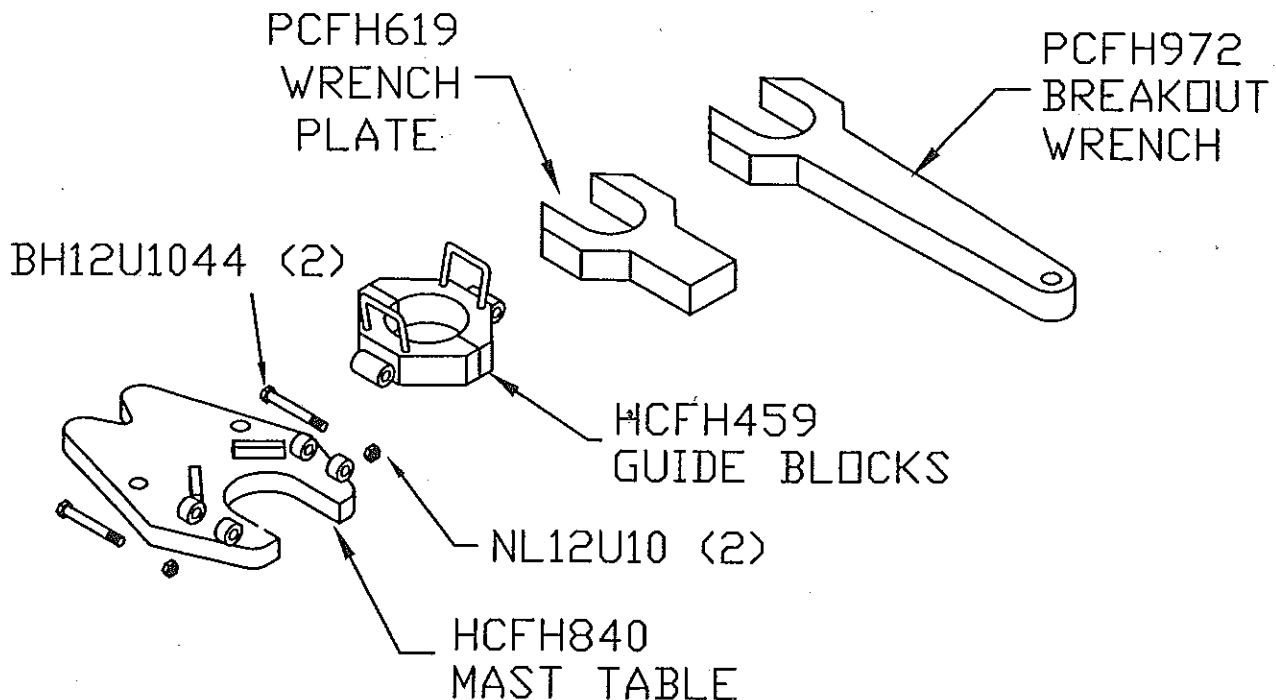


NOTE: PARTS SHOWN ARE FOR
FEED WITH 3/8" RAIL THICKNESS.
USE HCFH945A WEAR GUIDES
FOR FEED RAILS 1/4" THICK.



TEI ROCK DRILL ENGINEERING
MONTROSE, COLORADO USA
(970) 249-1515 FAX 249-1999

DRILL TABLE EQUIPMENT FOR PCFH AND HCFH SERIES FEEDS

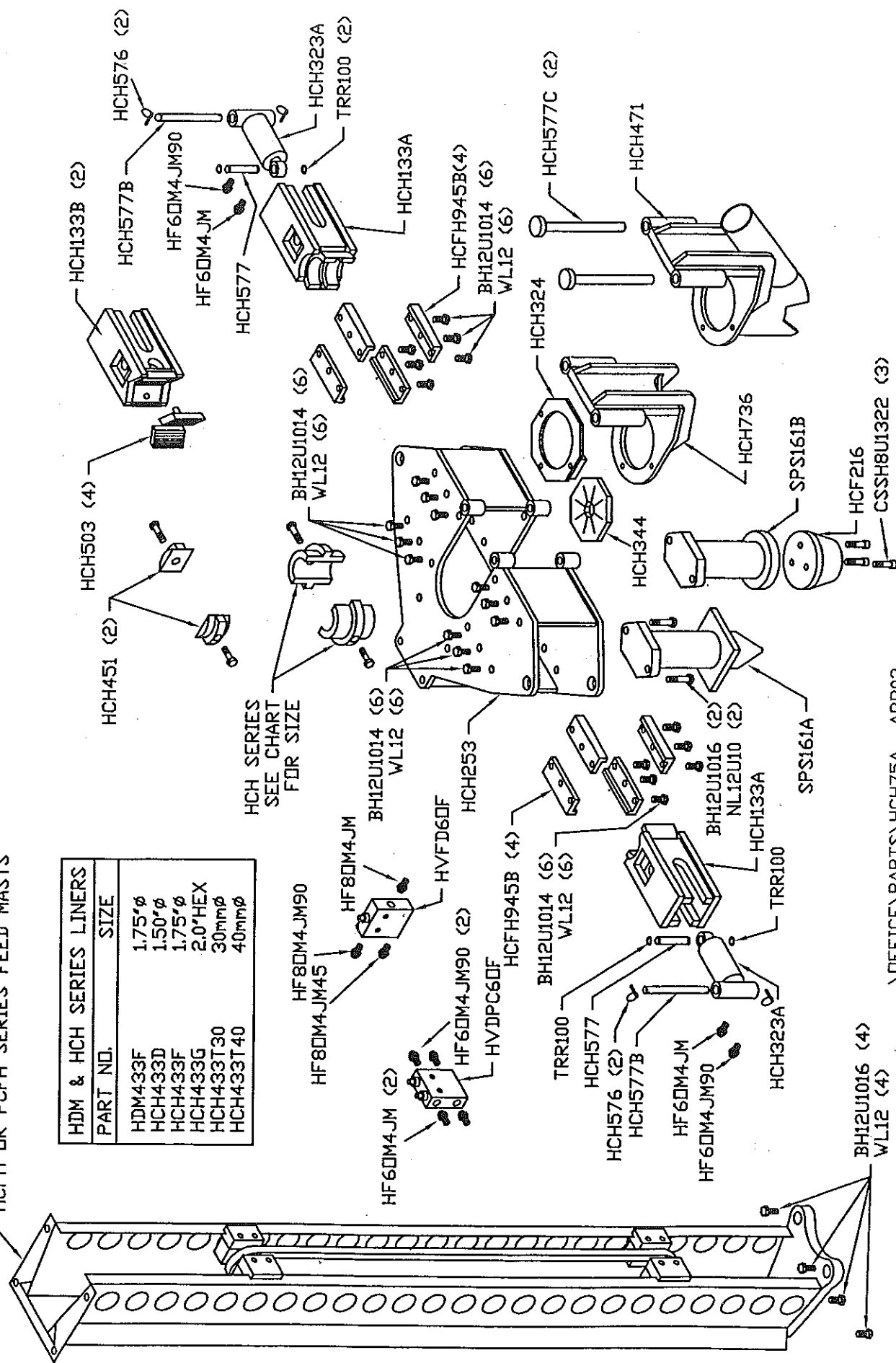


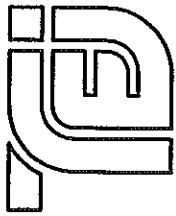
NOTE: SPECIFY THREAD TYPE AND
SIZE, PIPE DIAMETER, AND WRENCH
FLAT DIMENSIONS WHEN ORDERING



HCFH OR PCFH SERIES FEED MASTS

HCHC75A HYDRAULIC CENTRALIZER
AND SPS EXTENDED STINGER MOUNT
FOR MOUNTINGS AT 7.5'(190mm) CENTER

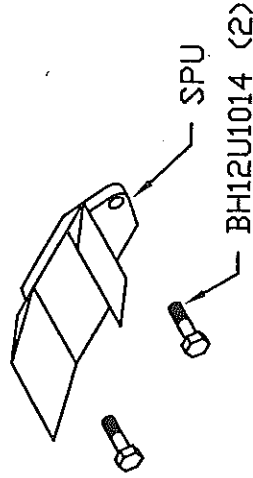




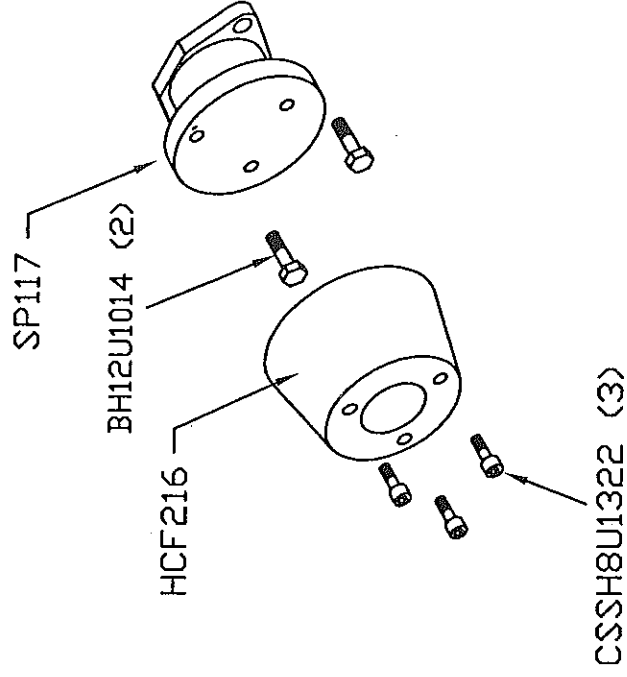
TEI ROCK DRILL ENGINEERING
MONTROSE, COLORADO USA
(970) 249-1515 FAX 249-1999

STINGER POINTS FOR USE WITH PCF AND HCF FEED BEAMS

APRIL01



SPU STINGER
POINT FOR
UNDERGROUND
APPLICATIONS



SPR STINGER
POINT FOR
SURFACE OR
UNDERGROUND
APPLICATIONS

LIMITED WARRANTY FOR TEI ROCK DRILLS

TEI ROCK DRILLS' limited warranty is only for products that are manufactured by TEI and only for operational failure caused by defective materials or workmanship. Said limited warranty is for normal and customary use within three months from the date of purchase by TEI's customer or three months from the date the TEI product is first placed into service, which ever is first.

TEI's limited warranty obligation is limited only to a replacement of any and all parts for any product that upon inspection by TEI shows that it was defective. Said replacement shall be limited to the lowest round trip transportation costs from the TEI's customer location to Montrose, Colorado, United States of America, and return. This limited warranty excludes all transportation costs from any TEI customers, and any and all other ancillary costs including but not limited to removal or installation of the parts or materials and any other costs directly or indirectly related to the operational failure caused by defective materials or workmanship.

TEI ROCK DRILLS' limited warranty does not include liability for any loss of time, manufacturing cost, labor, material, loss of profits, consequential damages because of defective materials or workmanship.

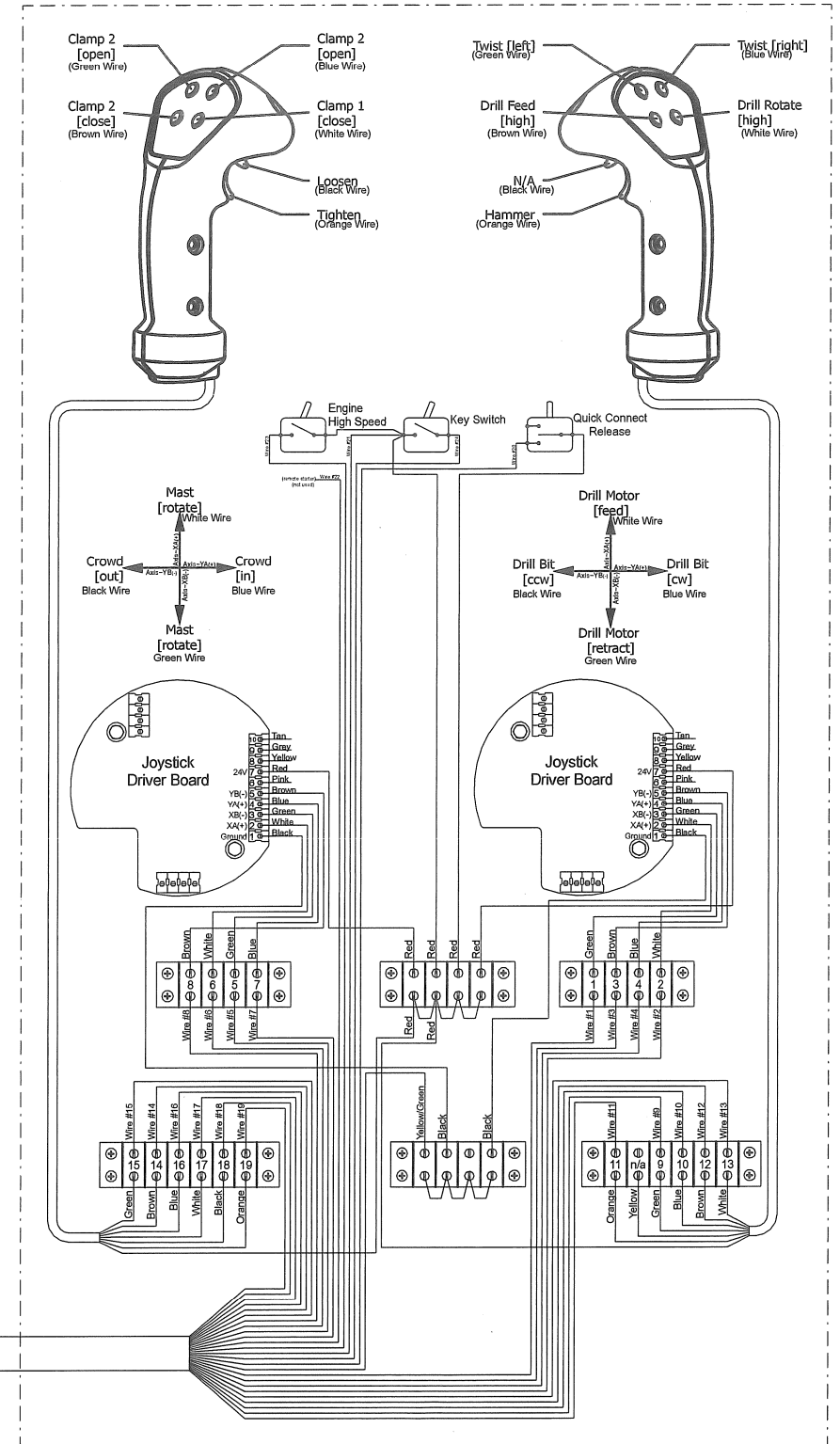
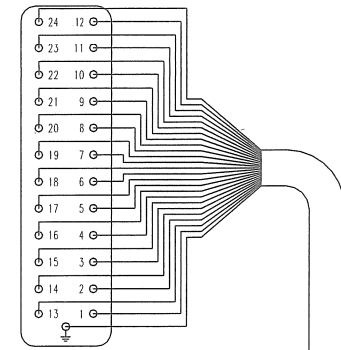
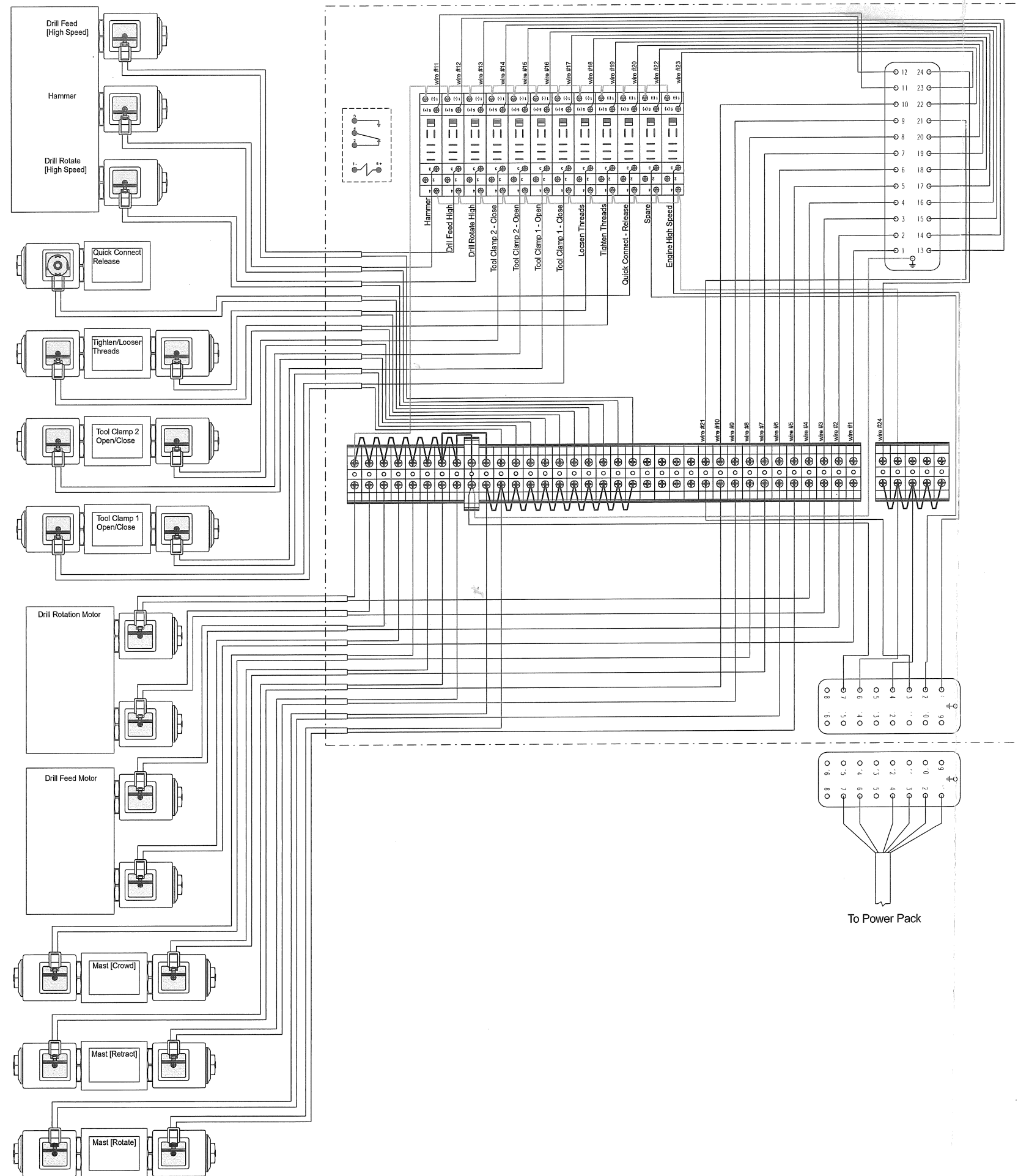
This limited warranty shall not extend to any other damages the customer may experience, including but not limited to any torts or product liability claims.

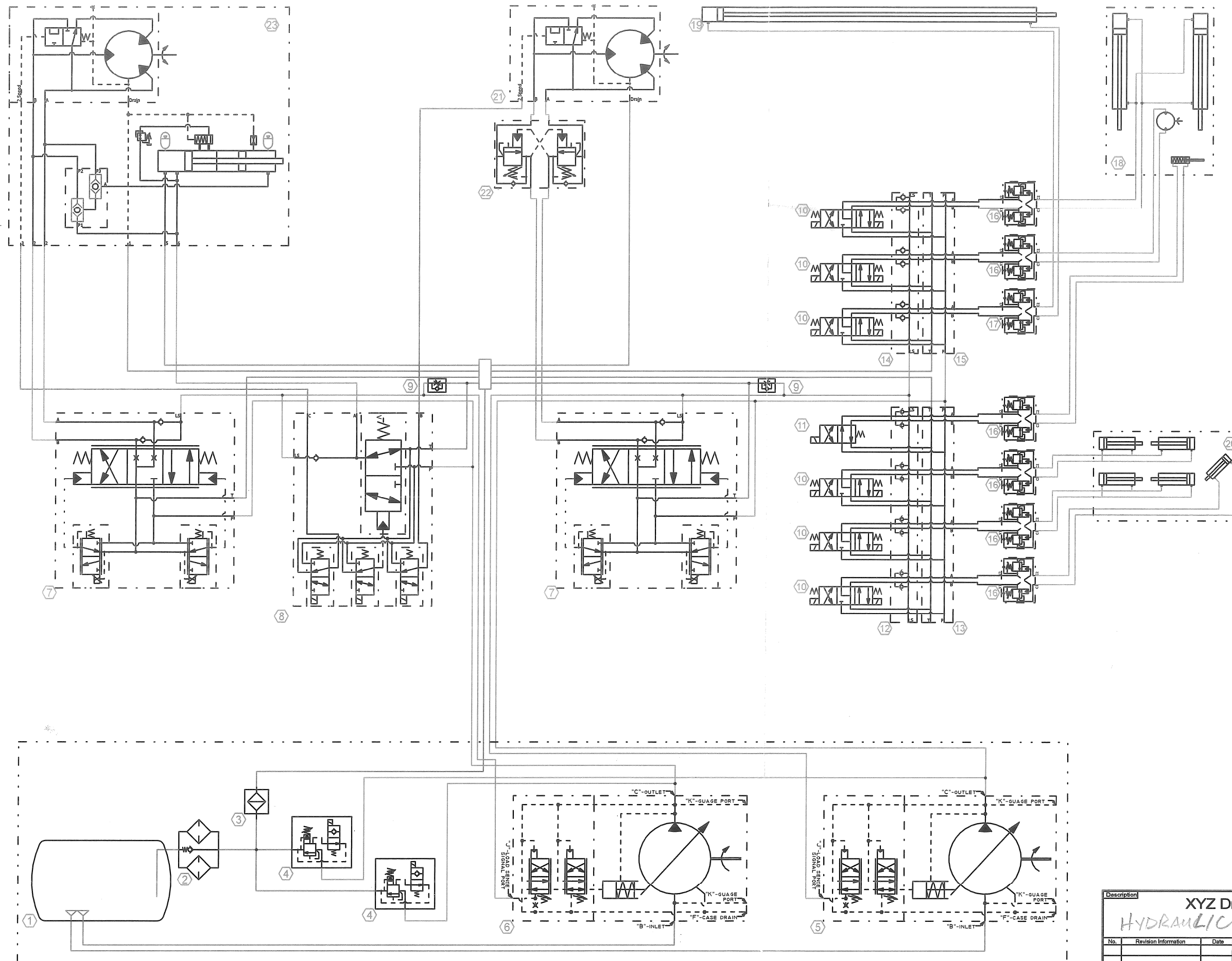
Prior to the return of any defective materials, written permission must be secured from authorized TEI personnel and, upon return, must include a complete written explanation of the claimed defects and the circumstances relating to the operational failure.

ONLY PRODUCTS MANUFACTURED BY TEI ARE WARRANTED FOR THE LIMITED PURPOSES AS SET FORWARD HEREIN AND ARE LIMITED TO A FITNESS FOR A PARTICULAR PURPOSE FOR THE NORMAL AND CUSTOMARY USE OF SAID PRODUCT.

DISCLAIMER

TEI ROCK DRILLS does not accept responsibility for any misprints in this booklet. Prices or numbers may change without written notice to anyone. This manual is not intended to create a contract.

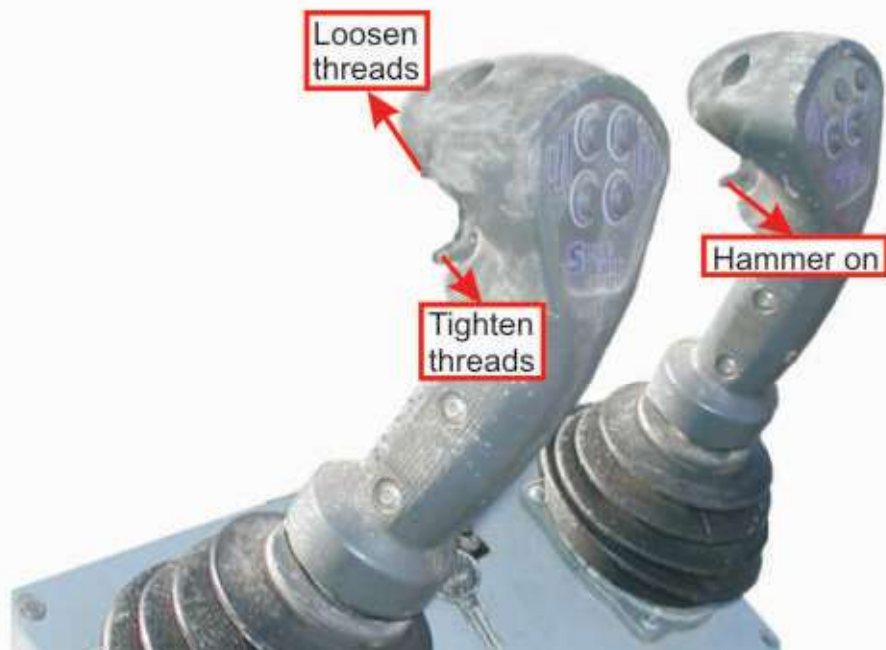
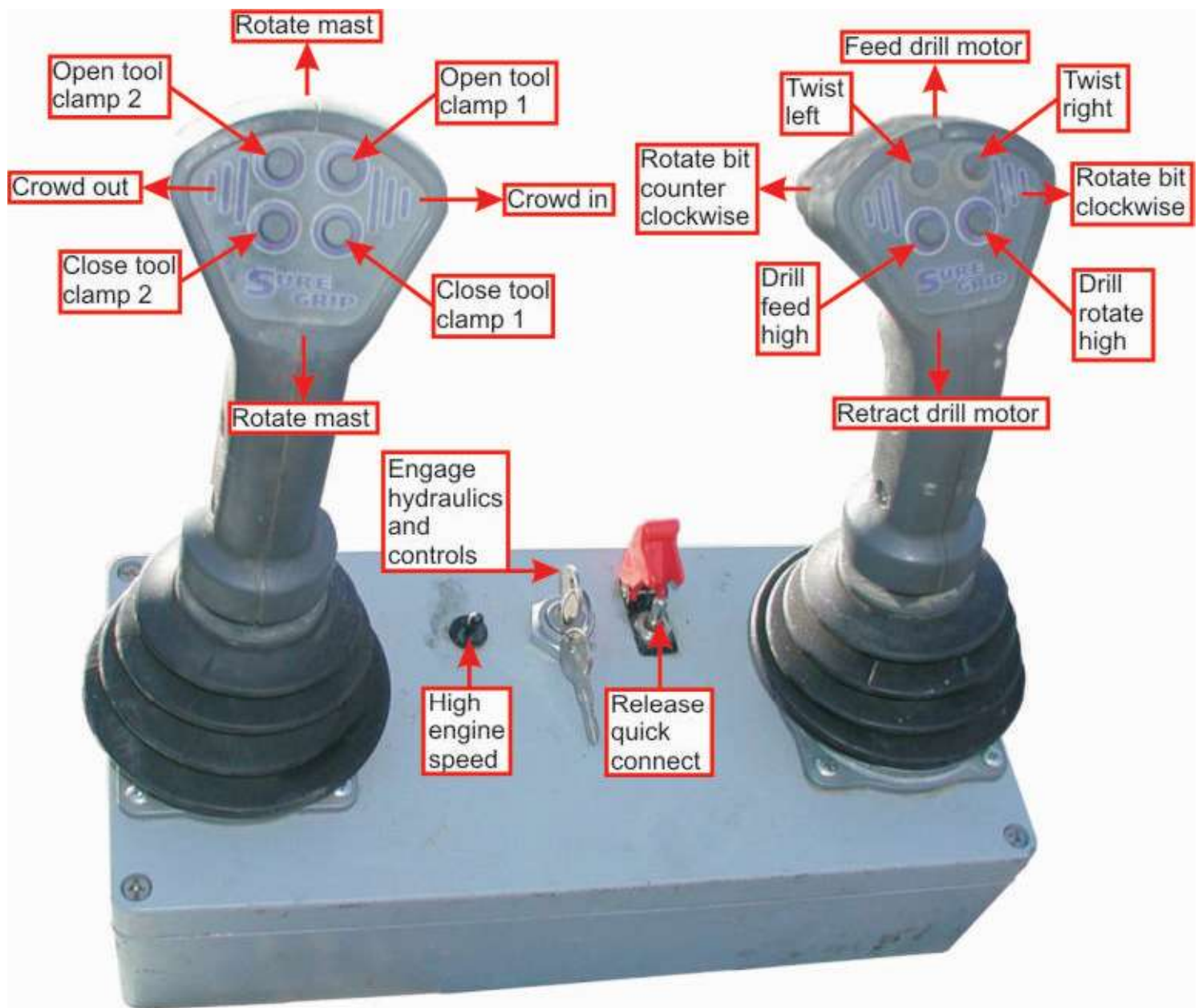




Component List		
Item	Qty.	Description
1	1	Hydraulic Tank
2	1	Hydraulic Filter
3	1	Hydraulic Cooler
4	2	Bypass relief
		Cartridge, relief / SUN - RVGA
		Cartridge, valve / HydraForce - SF08-21
5	1	Front Pump ⁽¹⁾ / Vickers - PHV 074
6	1	Rear Pump ⁽²⁾ / Vickers - PHV 074
7	2	Valve, motor proportional
		Cartridge, 4/3 spool /
		HydraForce - PE42-S678
		Cartridge, proportional valve /
		HydraForce - EHPR08-33
8	1	Valve, hammer
		Cartridge, 4/2 spool /
		HydraForce - PD16-40
		Cartridge, spool /
		HydraForce - SV08-30
9	1	Valve, load sense drain
		Cartridge, needle valve /
		Sun - NFCC-LCN
		Cartridge, body / Sun - GAI
10	6	Valve, directional control
		D03, 4/3 spool / Hytos - RPE3-06
11	1	Valve, directional control
		D03, 4/2 spool / Hytos - RPE3-06
12	1	Subplate, load sense, 4 station
		Check valve / HydraForce - CV08-20
13	1	Manifold, 4 station / Damon
14	1	Subplate, load sense, 3 station
		Check valve / HydraForce - CV08-20
15	1	Manifold, 3 station / Damon
16	6	Valve, counterbalance
		Cartridge / HydraForce - CBCA
		Body / HydraForce - XEI
17	1	Valves, counterbalance
		Cartridge / HydraForce - CBCA
		Body / HydraForce - YEI
18	1	Roto-tilt, Indexator
		Cylinder, leveling
		Motor, rotate
		Cylinder, latching
19	1	Cylinder, crowd mast
20	1	Break out
		Cylinder, clamping
		Cylinder, tightening
21	1	Motor, head positioning /
		Rineer - 15 series 2-speed
22	1	Valve, counterbalance
		Cartridge / HydraForce - CBGA
		Body / HydraForce - YJL
23	1	Hydraulic drifter/rotary head /
		Eurodrill - HD4008
		Motor, Drill /
		Eaton Char-Lynn - 10000 series 2-speed
		Percussion mechanism (hammer)
		For parts brake down see HD4008 manual

Color Legend	
—	Pressure
—	Tank & Drain
—	Pilot
—	Function
—	Load Sense

Description		XYZ Drill		TBH & Associates	
HYDRAULIC SCHEMATIC					
No.	Revision Information	Date	Model No.	Serial No.	
Draftsman: Paul Rave		Date: 12/04/05	File Name: Quick Change Junction Box [111203].SKF		

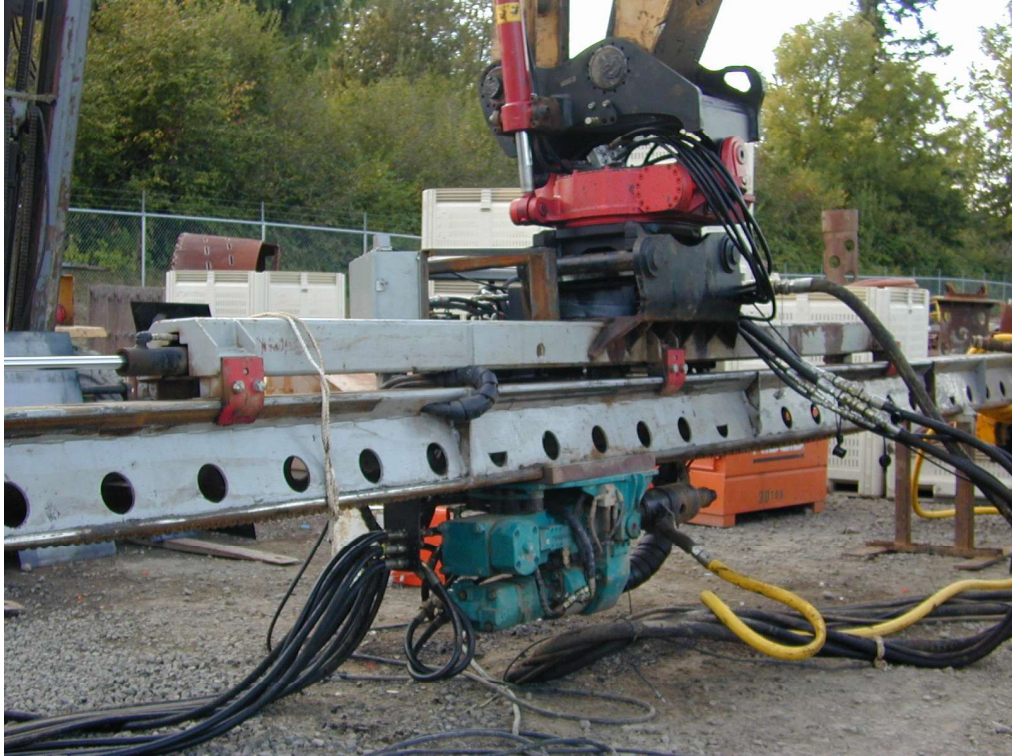




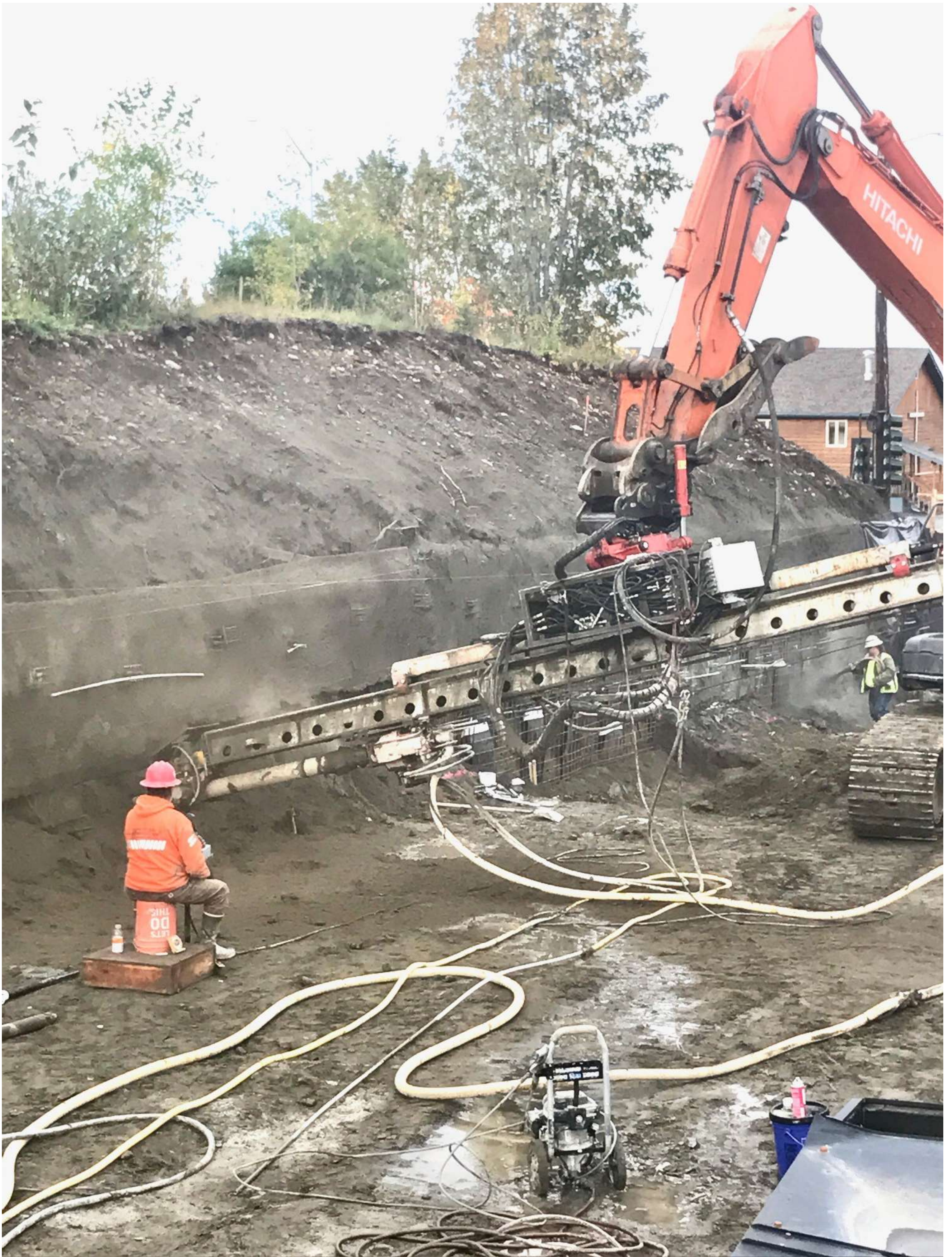










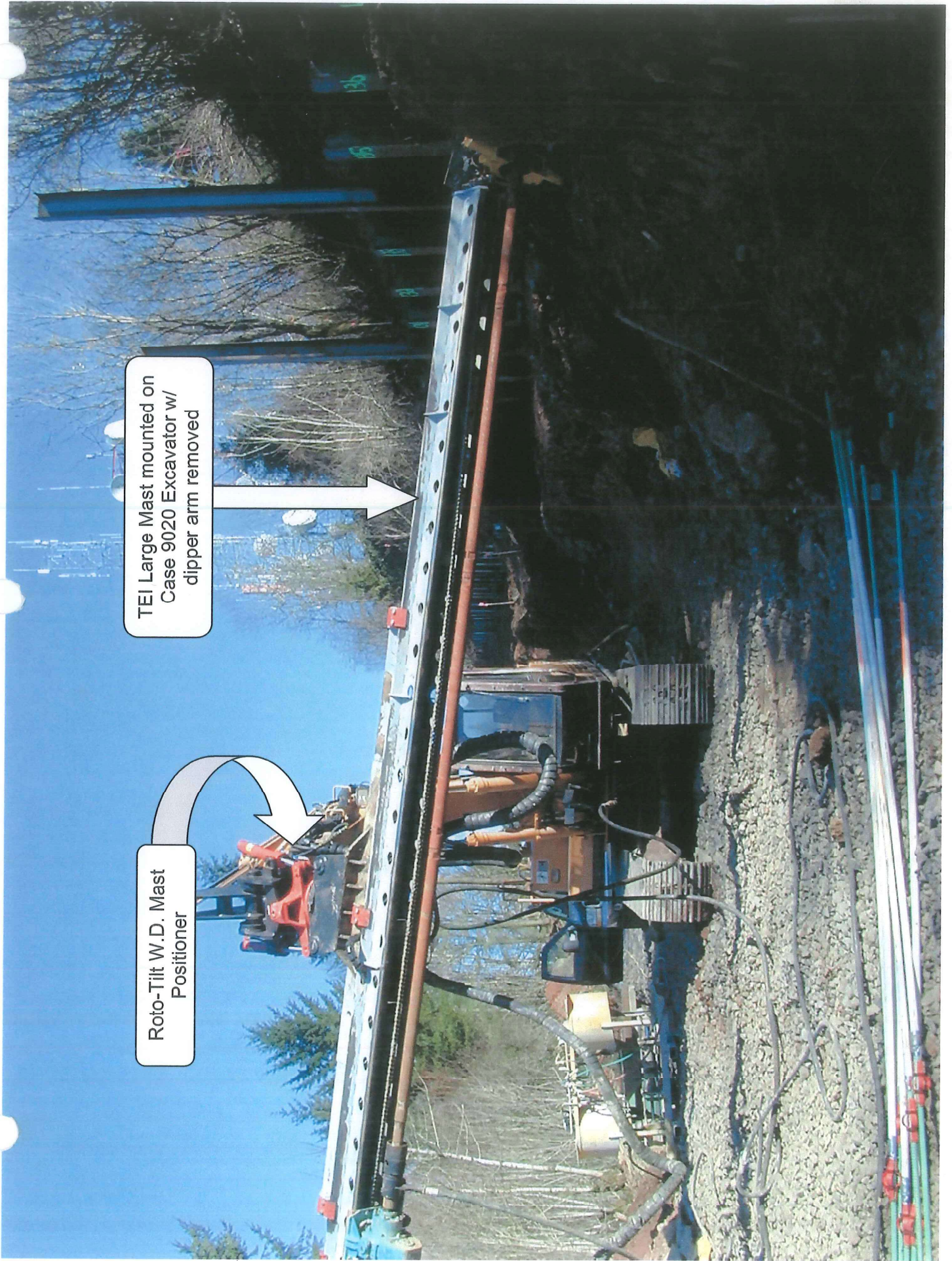


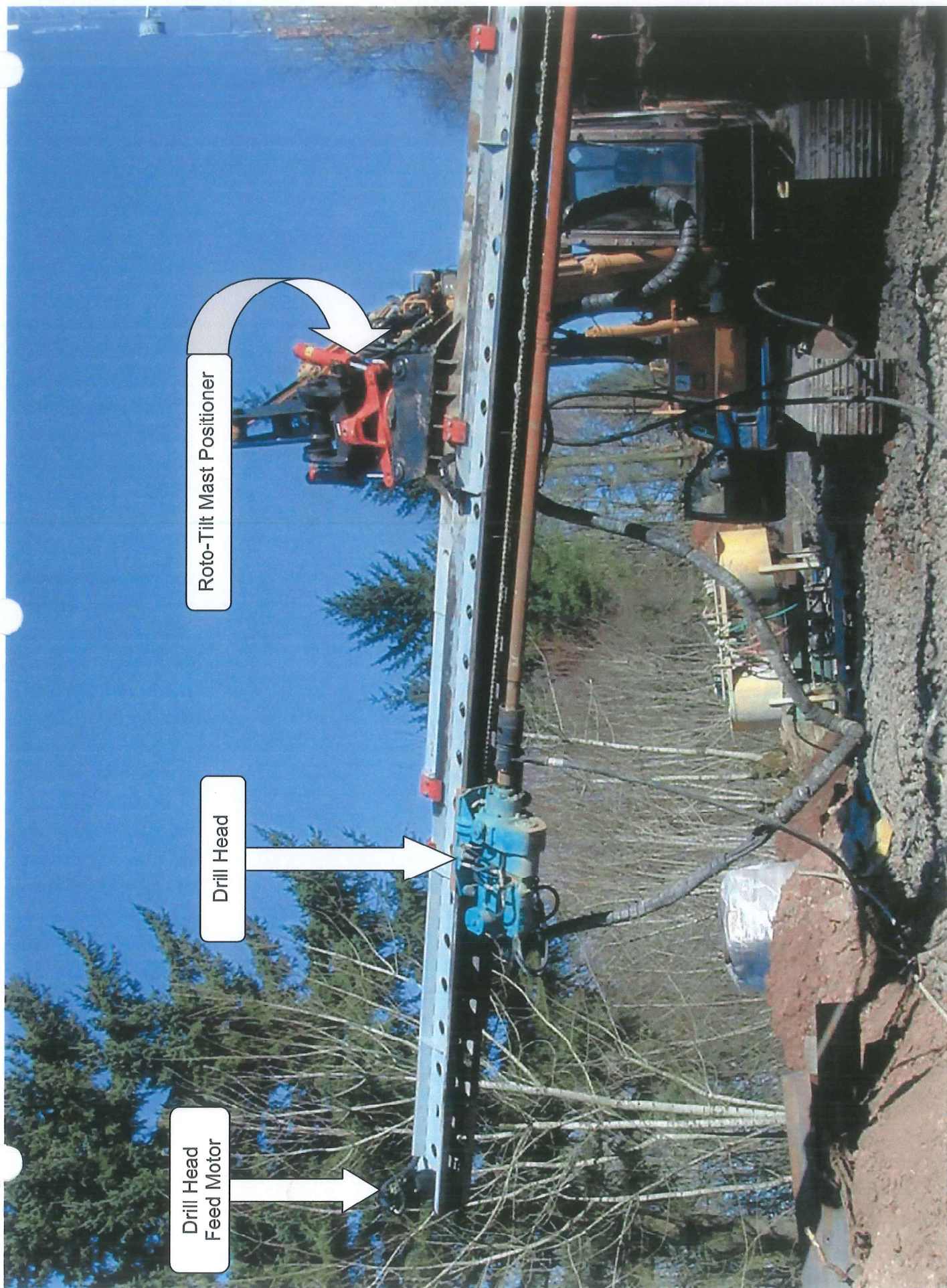


TEI Large Mast mounted on
Case 9020 Excavator w/
dipper arm removed

Roto-Tilt W.D. Mast
Positioner

HD 400B Drillhead



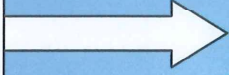


Roto-Tilt Mast Positioner

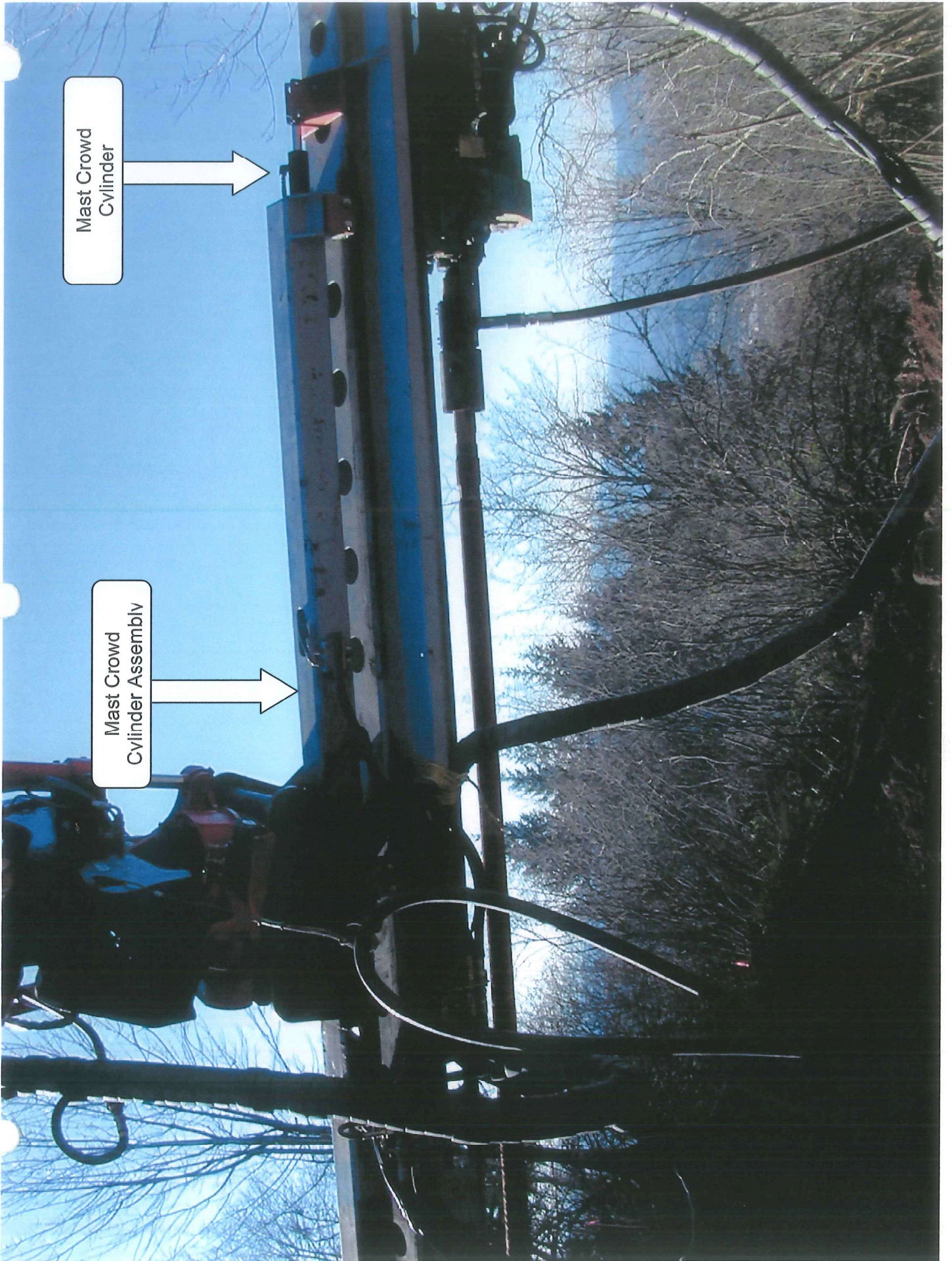
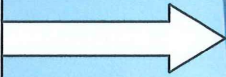
Drill Head

Drill Head
Feed Motor

Mast Crowd
Cylinder

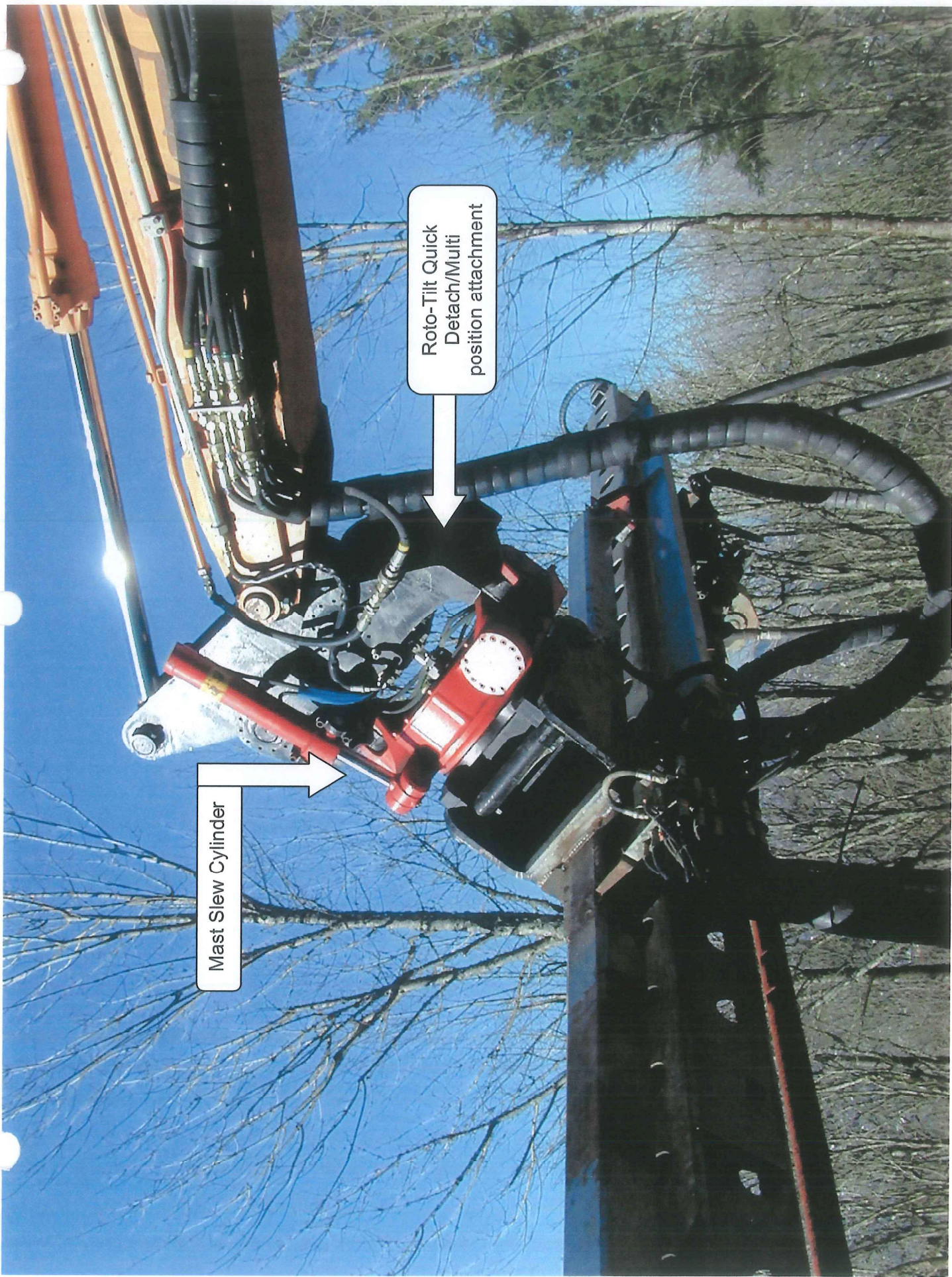


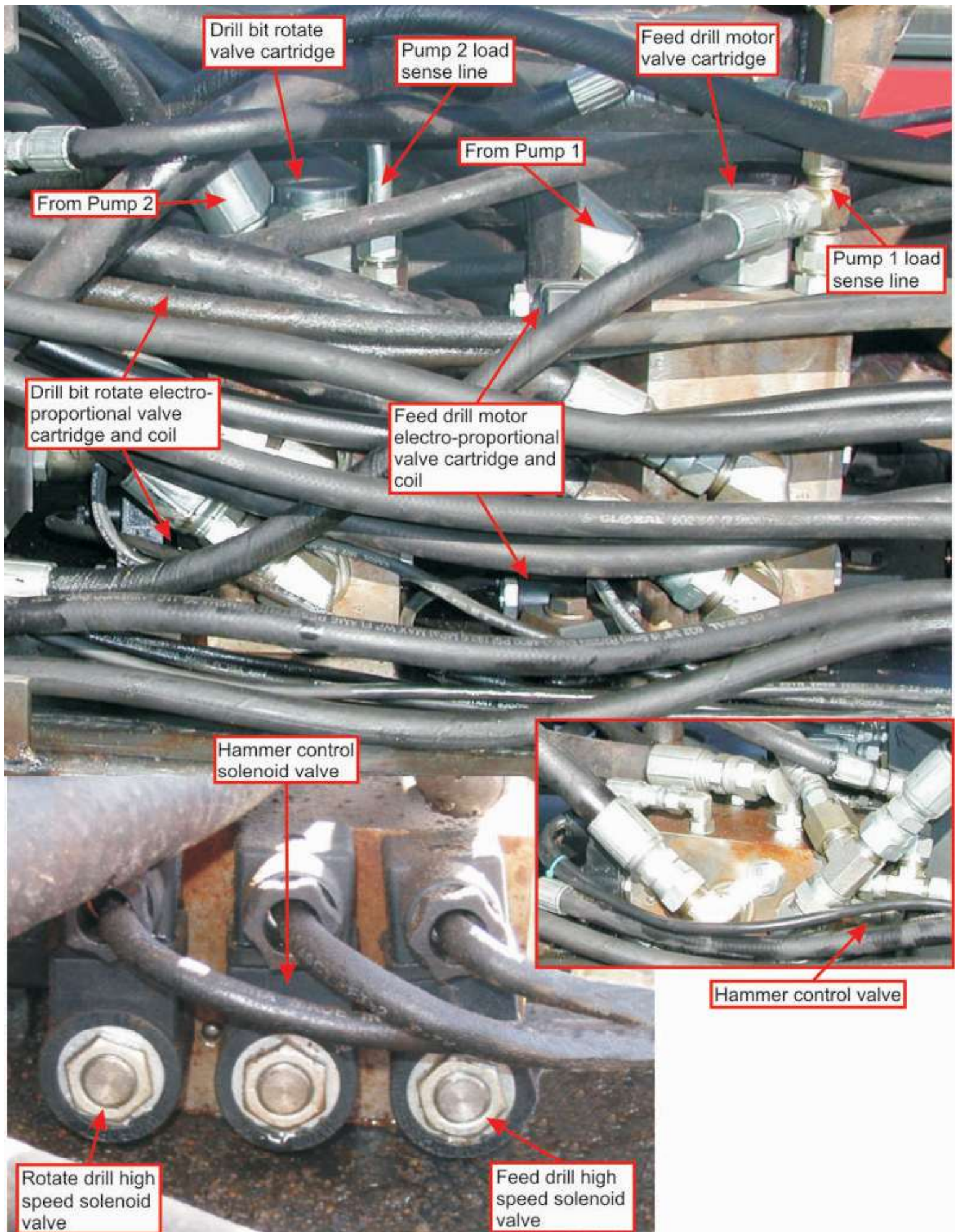
Mast Crowd
Cylinder Assembly



Mast Slew Cylinder

Roto-Tilt Quick
Detach/Multi
position attachment



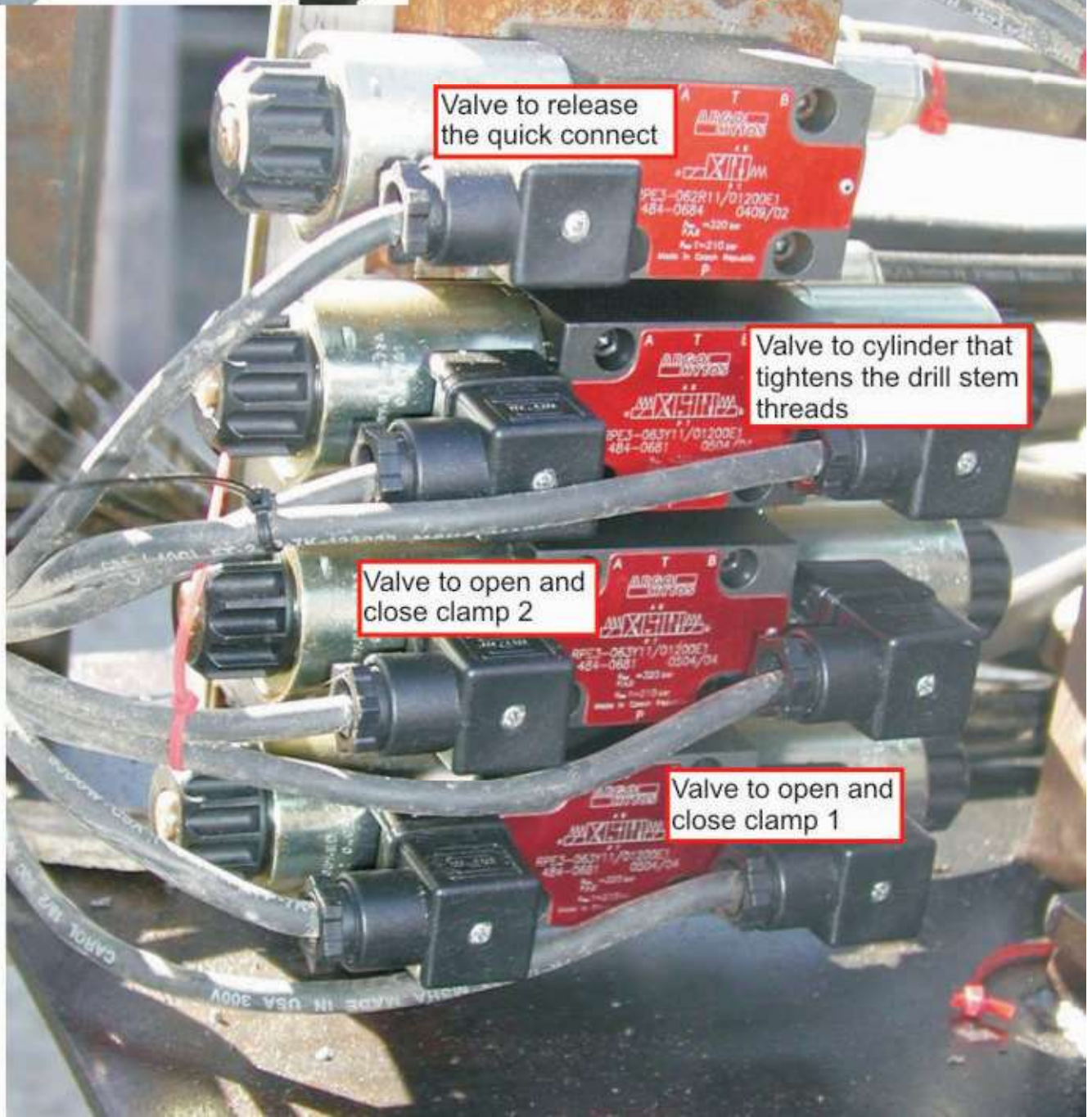




Drill feed motor
counter balance valve



Load sensing
subplate

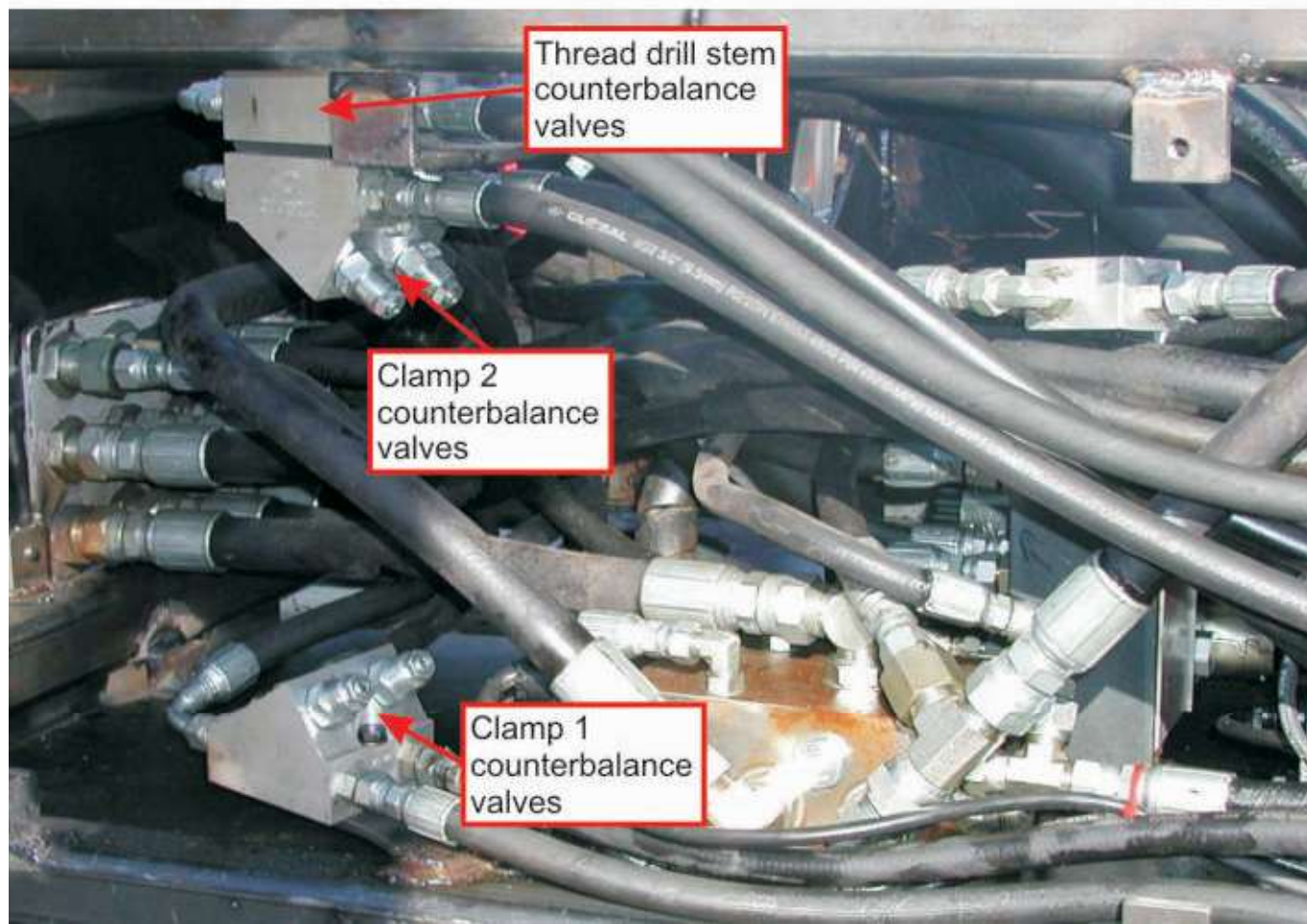
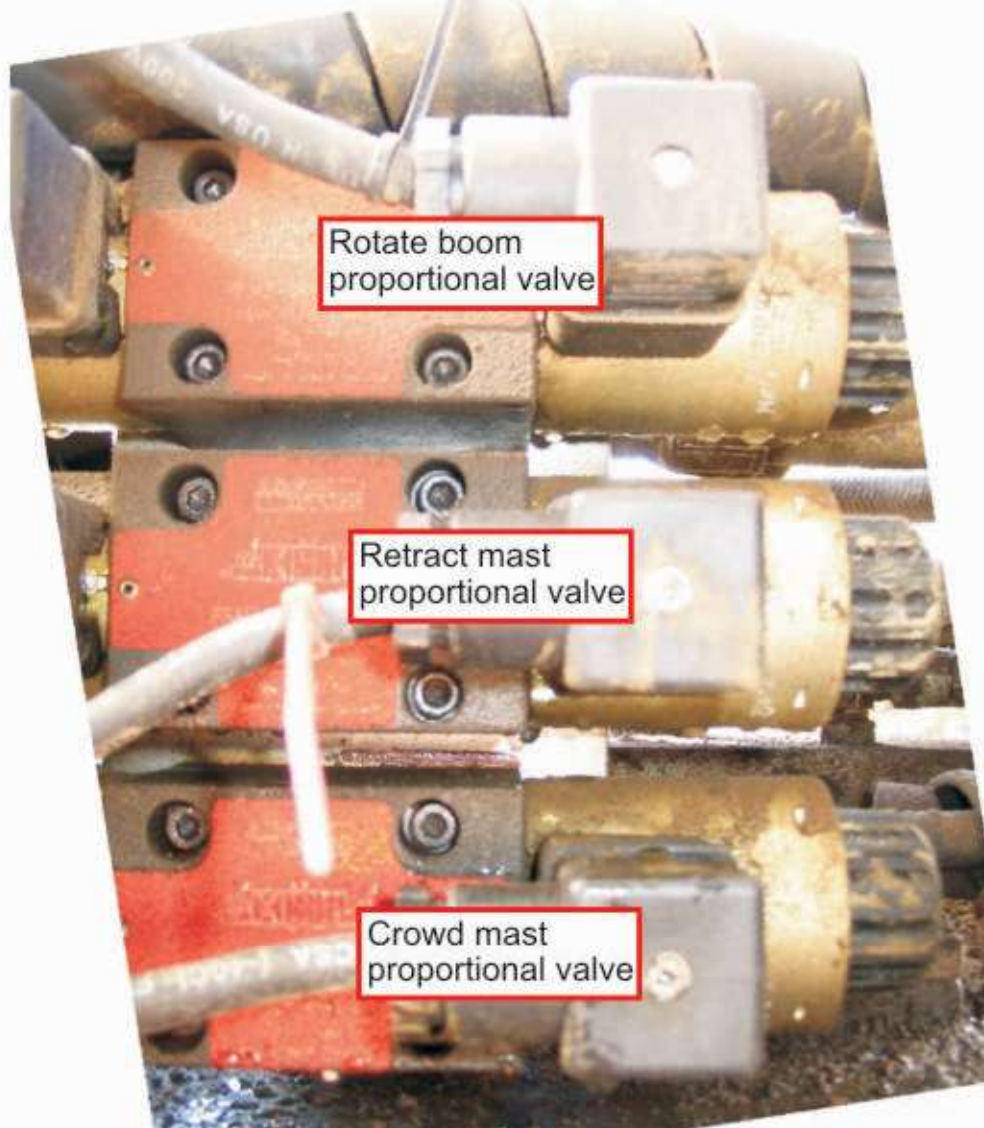


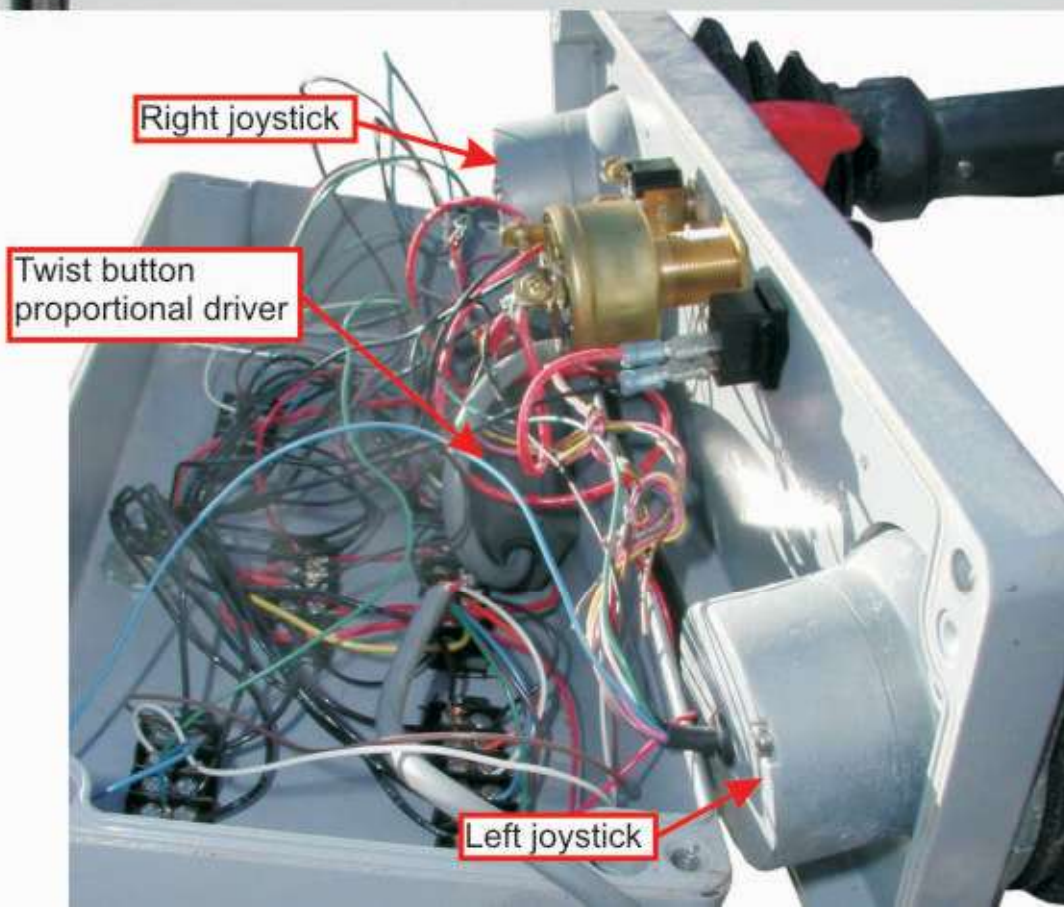
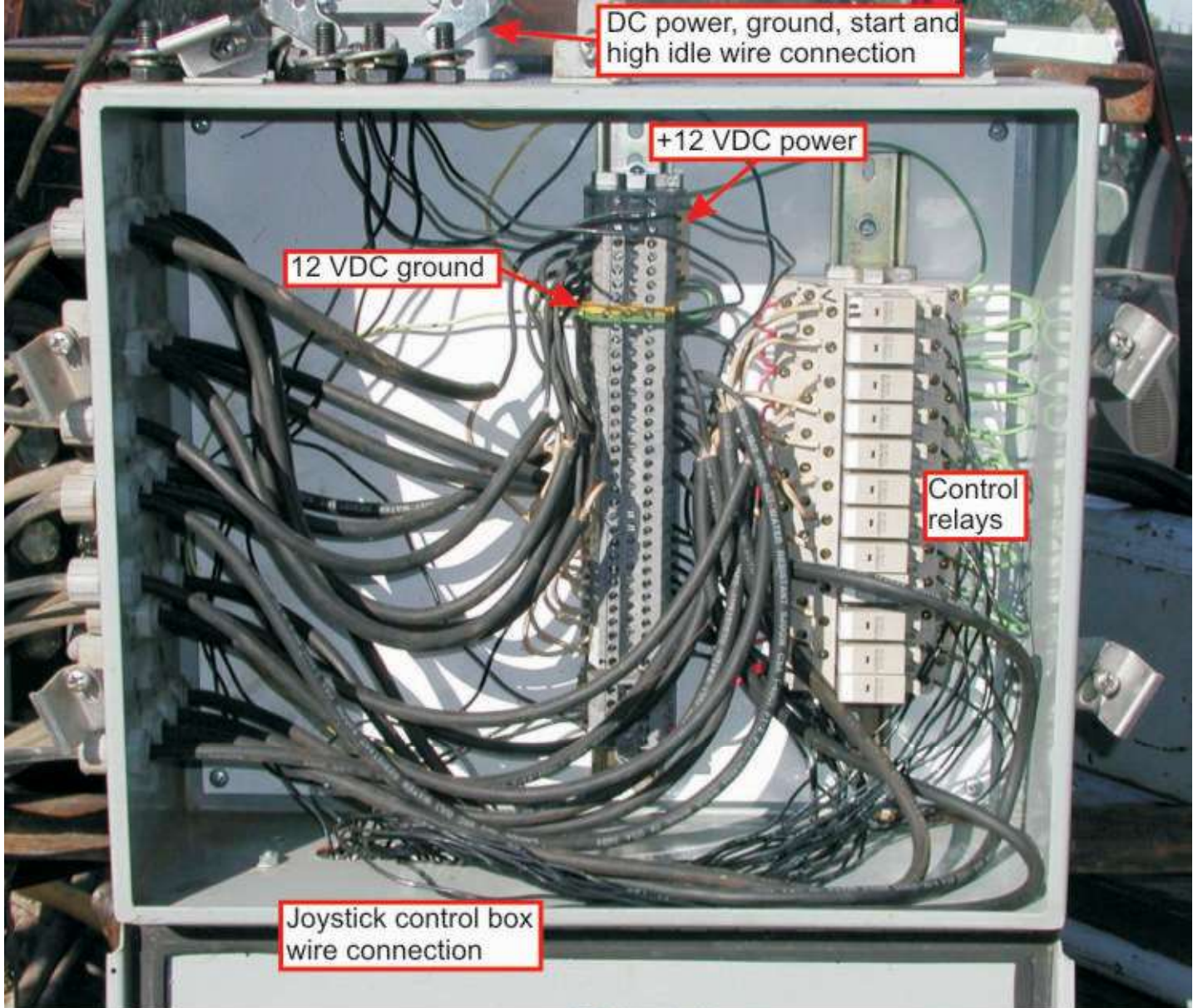
Valve to release
the quick connect

Valve to cylinder that
tightens the drill stem
threads

Valve to open and
close clamp 2

Valve to open and
close clamp 1





These control valve assemblies each contain the following items.
1ea. HydraForce PE40-S67H-0-N pilot operated proportional valve
2ea. HydraForce EHPR08-33-0-N-00 proportional electric reducing/relieving valve
2ea. HydraForce 6451612 12 VDC coil
2ea. HydraForce CV08-20-0-N-25 check valve, for load sensing.



1ea. HydraForce
CV08-20-0-N-25 Load
sense check valve

1ea. HydraForce
PD16-40-0-N-110
Pilot valve



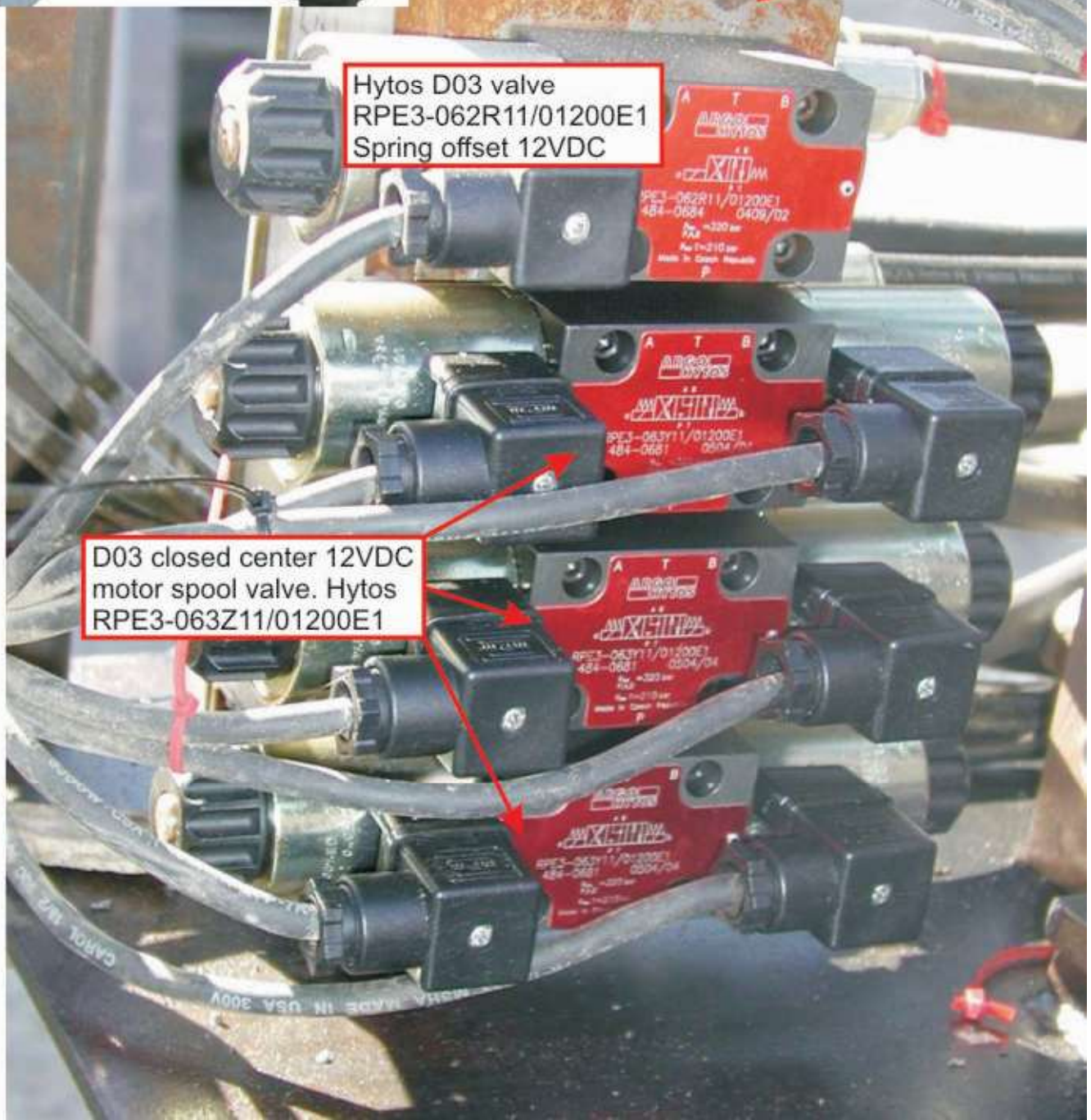
HydraForce SV08-33-0-N solenoid
valve with 6306012 coil



1ea. Sun YJL body
2ea. Sun CBGA-LHN
counter balance valve

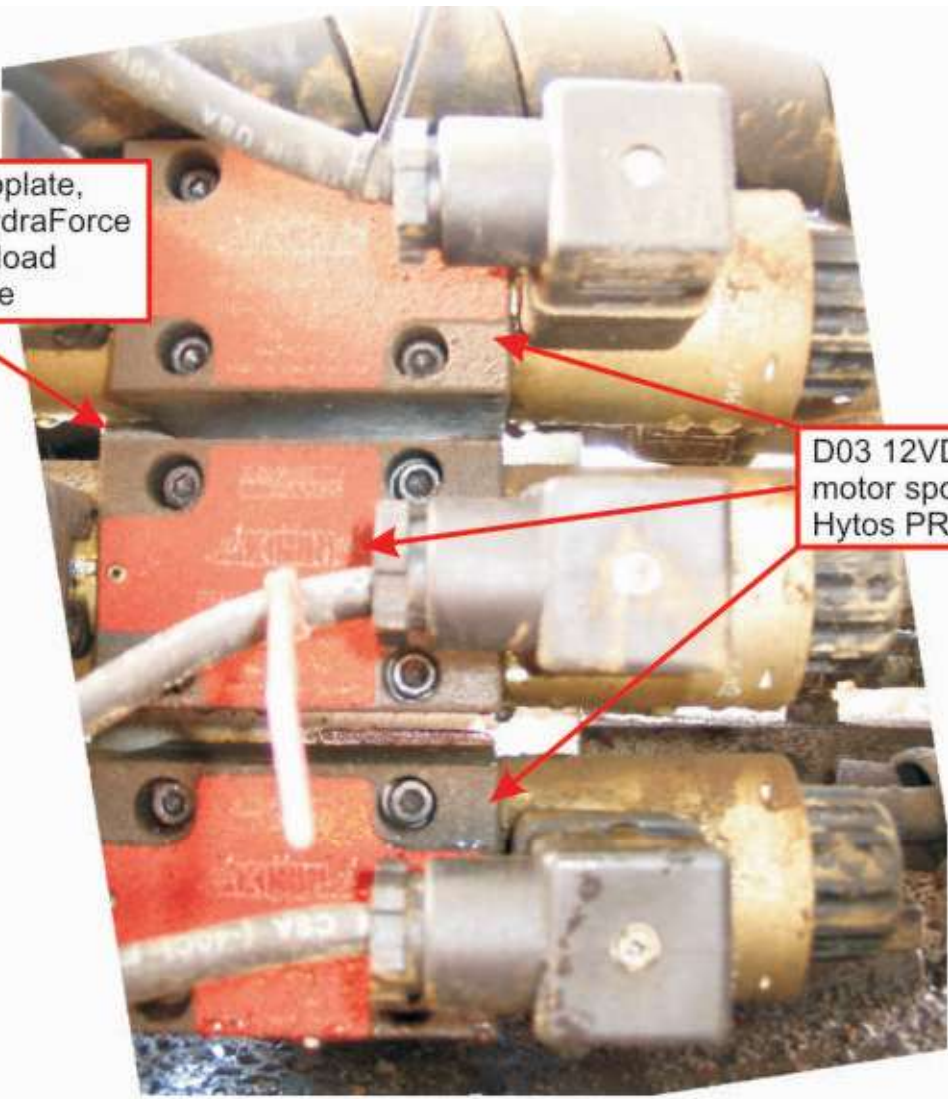


Load sensing subplate,
contains, 6ea. HydraForce
SV08-20-0-N-25 load
sense check valve



Hytos D03 valve
RPE3-062R11/01200E1
Spring offset 12VDC

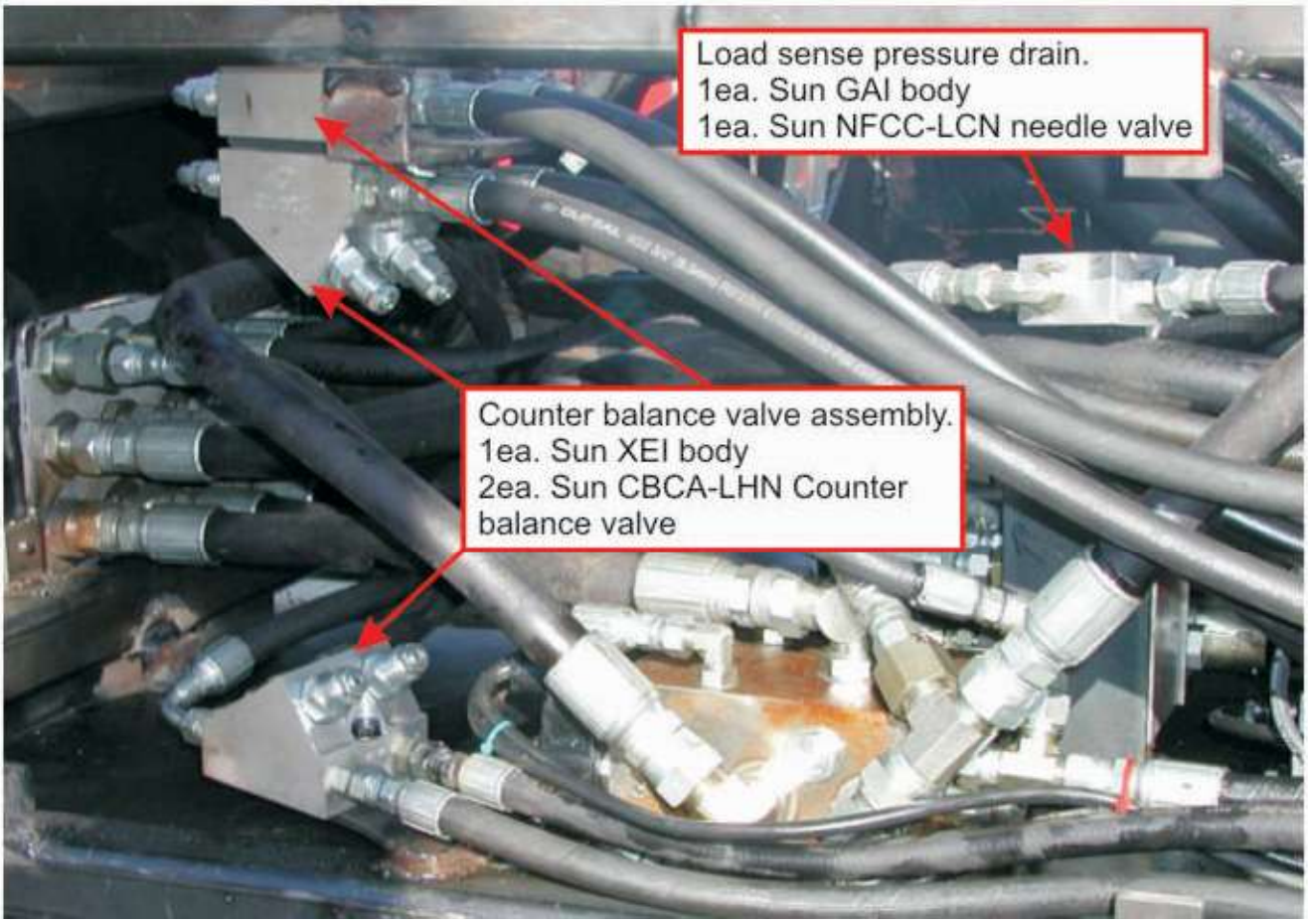
D03 closed center 12VDC
motor spool valve. Hytos
RPE3-063Z11/01200E1



Load sensing subplate,
contains, 6ea. HydraForce
SV08-20-0-N-25 load
sense check valve

This image shows a close-up of a hydraulic subplate assembly. It features a red-painted metal block with several hydraulic ports. Two white hydraulic hoses are connected to the ports. A silver-colored solenoid valve is mounted on the right side of the subplate. Red arrows point from the text boxes to specific components within the assembly.

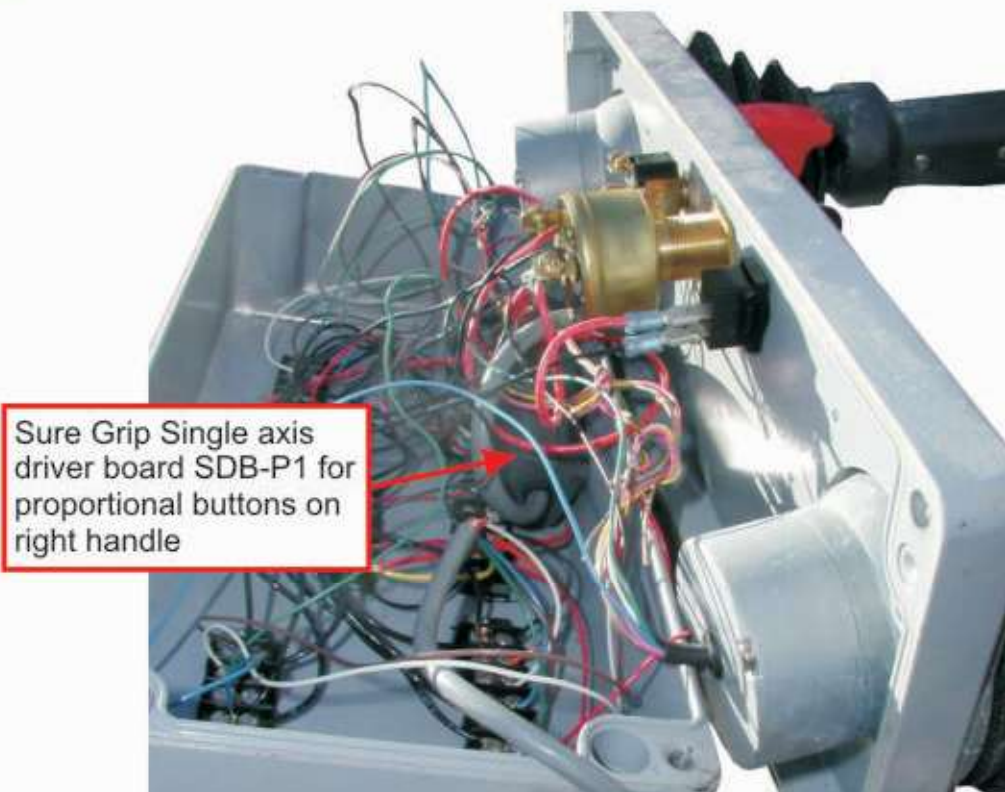
D03 12VDC closed center
motor spool proportional valve.
Hytos PRM2-063Y11/30-12

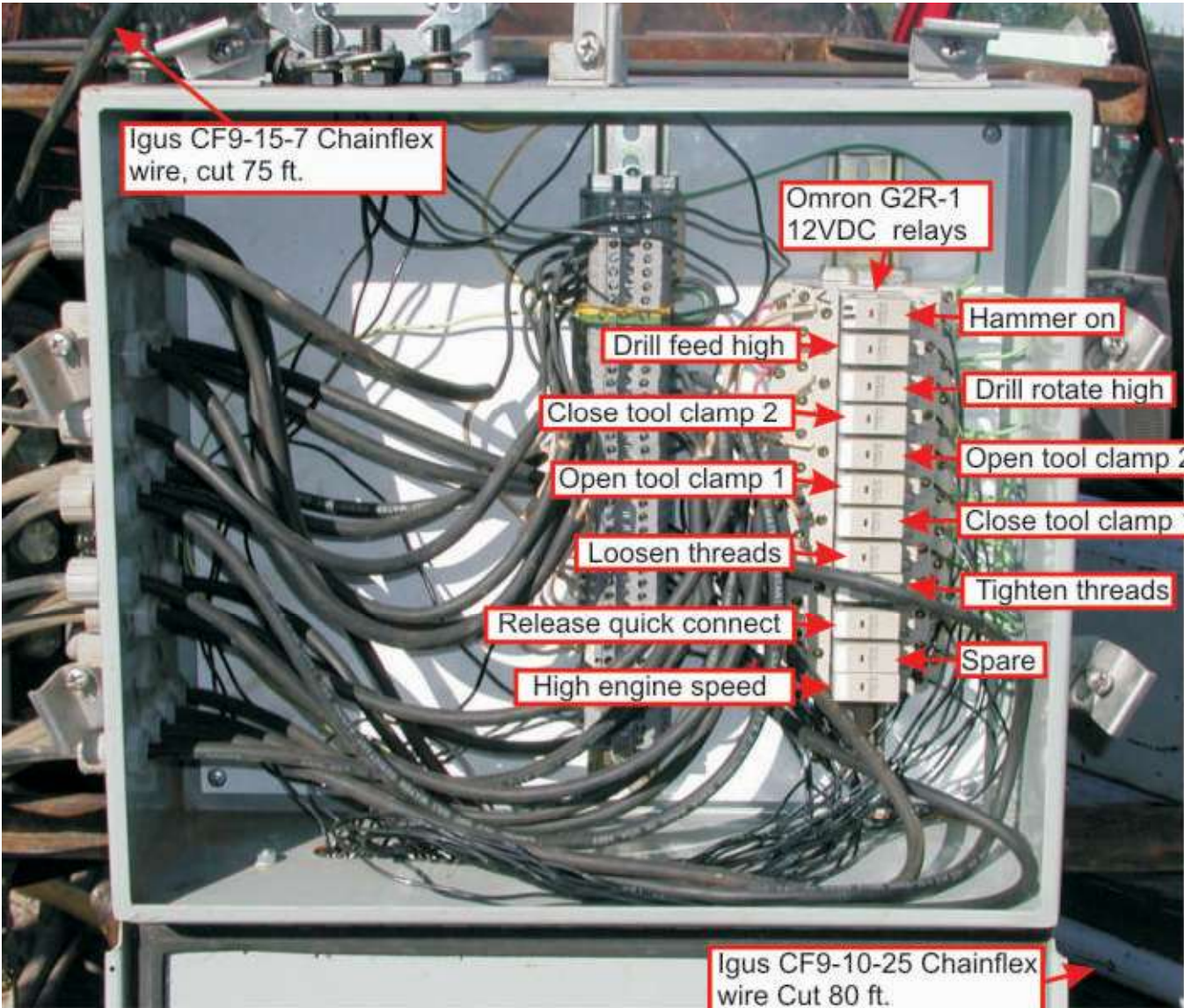


Load sense pressure drain.
1ea. Sun GAI body
1ea. Sun NFCC-LCN needle valve

This image shows a complex hydraulic manifold assembly with numerous black hydraulic hoses connected to various ports. The assembly is made of metal and includes several fittings and valves. Red arrows point from the text boxes to specific components within the manifold.

Counter balance valve assembly.
1ea. Sun XEI body
2ea. Sun CBCA-LHN Counter
balance valve





Igus CF9-15-7 Chainflex
wire, cut 75 ft.

Omron G2R-1
12VDC relays

Drill feed high

Hammer on

Close tool clamp 2

Drill rotate high

Open tool clamp 1

Open tool clamp 2

Loosen threads

Close tool clamp 1

Release quick connect

Tighten threads

High engine speed

Spare

Igus CF9-10-25 Chainflex
wire Cut 80 ft.