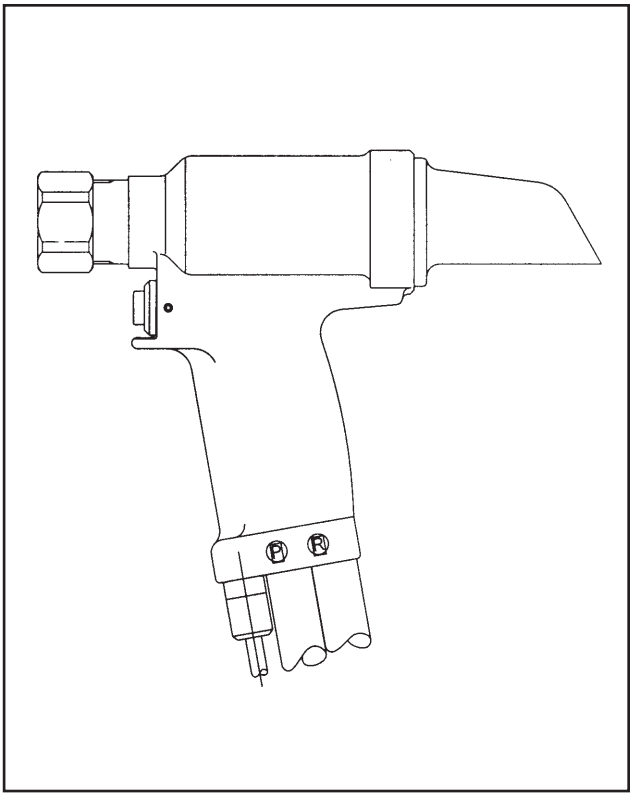
Alcoa Fastening Systems

ALCOA

INSTRUCTION MANUAL

2580 ALL MODELS

HYDRAULIC INSTALLATION TOOL



Makers of Huck®, Marson®, Recoil®
Brand Fasteners, Tools & Accessories

Form HK 961
03-10-2004

HUCK®

EU Declaration of Conformity

Manufacturer:
Huck International Inc., Installation Systems Division, 85 Grand Street, Kingston, NY, 12401, USA

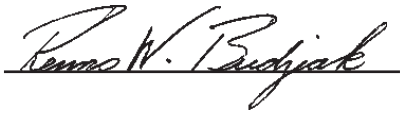
Description:
Model number 2400 series fastener installation tools
Model number 2500 series fastener installation tools
Model number 2600 series fastener installation tools

Relevant provisions complied with:
Council Directive related to Machinery, (89/392/EEC), (91/368/EEC), (93/44/EEC), (93/68/EEC)
Council Directive related to EMC/EMI, (89/336/EEC)

European Representative:
Rob Pattendon, Huck International, Ltd. Unit C Stafford Park 7, Telford Shropshire TF3 3BQ, England, United Kingdom

Authorized Signature/date:

I, the undersigned, do hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

Signature: 

Full Name: Renno Budziak

Position: Vice President of Engineering, Installation Systems Division

Place: Kingston, New York, USA

Date: May, 1996

Huck Model Series 2400, 2500 and 2600 (families) Sound Level

SEL = 75.8 dB (A)
peak value = 108.2 dB (C)

For an eight hour work day, installing 3000 typical Huck fasteners will result in an equivalent noise level (Leq) of 66 dB (A).

To calculate equivalent noise level for other quantities of fasteners in an eight hour period, use the formula:

Leq = SEL + 10 log (n/28,800)

where n = number of fasteners in eight hours.

Huck Model Series 2400, 2500 and 2600 (families) Vibration Level

For an eight hour work day, installing 3000 typical Huck fasteners will result in an equivalent weighted RMS vibration level (Aeq) of 12.50m/s2.

To calculate equivalent vibration level for other quantities of fasteners in an eight hour period, use the formula:

Equivalent Vibration Level, Aeq (m/s2) = (n/480) x 2.00

where n = number of fasteners in eight hours, and 2.00(m/s2) = Aeq for 60 seconds.

Test data to support the above information is on file at Huck International, Inc., Kingston, NY, USA. Vibration measurements are frequency weighted in accordance with ISO 8041 (1990).

SAFETY

This instruction manual must be read with particular attention to the following safety guide lines, by any person servicing or operating this tool.

1. Safety Glossary

 — Product complies with requirements set forth by the relevant European directives.

 — Read manual prior to using equipment.

 — Eye protection required while using this equipment.

 — Hearing protection required while using this equipment.

WARNINGS - Must be understood to avoid severe personal injury.

CAUTIONS - *show conditions that will damage equipment and or structure.*
Notes - are reminders of required procedures.
Bold, Italic type and underlining - emphasizes a specific instruction.

2. Huck equipment must be maintained in a safe working condition at all times and inspected on a regular basis for damage or wear. Any repair should be done by a qualified repairman trained on Huck procedures.

3. Repairman and Operator must read manual prior to using equipment and understand any Warning and Caution stickers/labels supplied with equipment before connecting equipment to any primary power supply. As applicable, each of the sections in this manual have specific safety and other information.

4. See MSDS Specifications before servicing the tool. MSDS Specifications are available from you Huck representative or on-line at www.huck.com. Click on Installation Systems Division.

5. When repairing or operating Huck installation equipment, always wear approved eye protection. Where applicable, refer to ANSI Z87.1 - 1989

6. Disconnect primary power source before doing maintenance on Huck equipment.

7. If any equipment shows signs of damage, wear, or leakage, do not connect it to the primary power supply.

8. Make sure proper power source is used at all times.

9. Never remove any safety guards or pintail deflector.

10. Never install a fastener in free air. Personal injury from fastener ejecting may occur.

11. When using an offset nose always clear spent pintail out of nose assembly before installing the next fastener.

12. If there is a pinch point between trigger and work piece use remote trigger. (Remote triggers are available for all tooling).

13. Do not abuse tool by dropping or using it as a hammer. Never use hydraulic or air lines as a handle. Reasonable care of installation tools by operators is an important factor in maintaining tool efficiency, eliminating downtime, and in preventing an accident which may cause severe personal injury.

14. Never place hands between nose assembly and work piece.

15. Tools with ejector rods should never be cycled with out nose assembly installed.

16. When two piece lock bolts are being used always make sure the collar orientation is correct. See fastener data sheet of correct positioning.

CONTENTS

DESCRIPTION

DESCRIPTION

Model 2580 Hydraulic Installation Tool with appropriate nose assembly installs a wide range of Huck blind fasteners and HUCKBOLT® Fasteners. This lightweight and compact mini tool is particularly adapted to installing fasteners in limited clearance areas. Each tool is complete with hydraulic hoses and couplings; electric switch and cord. The tool is basically a cylinder and piston assembly. An unloading valve, designed to relieve hydraulic pressure at end of the PULL stroke, is positioned by the piston. End of piston rod is threaded - - retaining nut and stop are included for attaching nose assemblies.

Huck Hydraulic Installation Tools are designed to be powered by Huck POWERIG ® Hydraulic Units. For most applications, the 2580 operates at 5,700 psi (39,000 kPa) PULL and 3,200 psi (19,300 kPa) RETURN pressures [see footnote (2)]. Huck POWERIG Hydraulic Unit Models 913, 918, 918-5, 940, 956, or equivalent, are power source.

A specific nose assembly is required for each fastener type and size. Nose assemblies must be ordered separately - - see your Huck representative.

Table 1 - Specifications (1) (2)

Length	8.40 in.	(213 mm)
Width	2.16 in.	(55 mm)
Height (incl. handle)	6.48 in.	(165 mm)
Weight	6.58 lbs.	(3.0 kg)
PULL pressure	7400 psi	(51,000 kPa)
RETURN pressure	3200 psi	(22,100 kPa)
Min. effective stroke	.94 in.	(23.9 mm)

(1) Length and weight does not include hoses/cord or nose assembly.
(2) For fastener size -12 and above, set PULL pressure to 7400 psi.

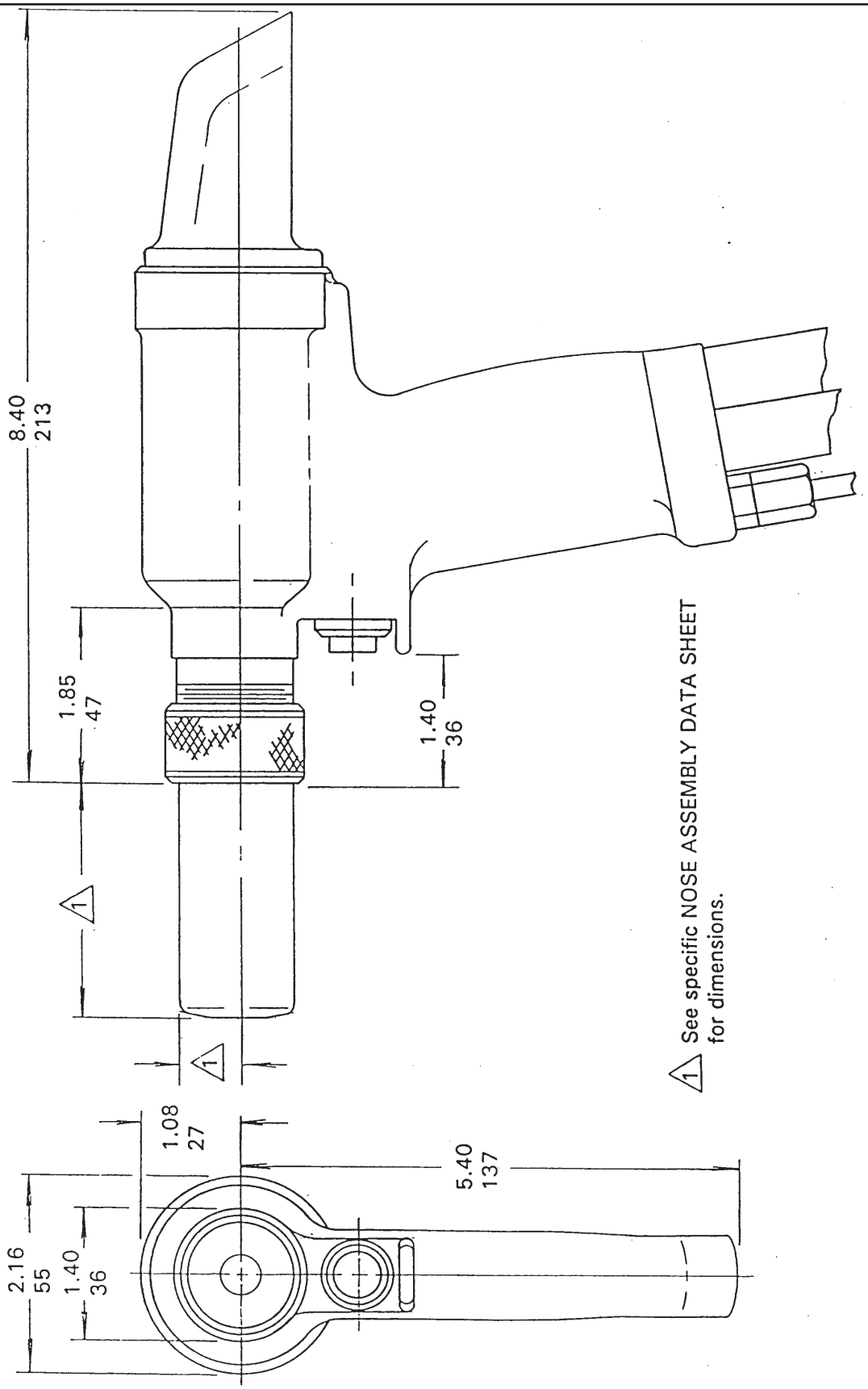
Pull capacity at 5700 psi: *8,240 lbs. (36.6 kN).*

Pull capacity at 7400 psi: *10700 lbs. (47.5 kN).*

Power Source: *Huck POWERIG Hydraulic Unit*

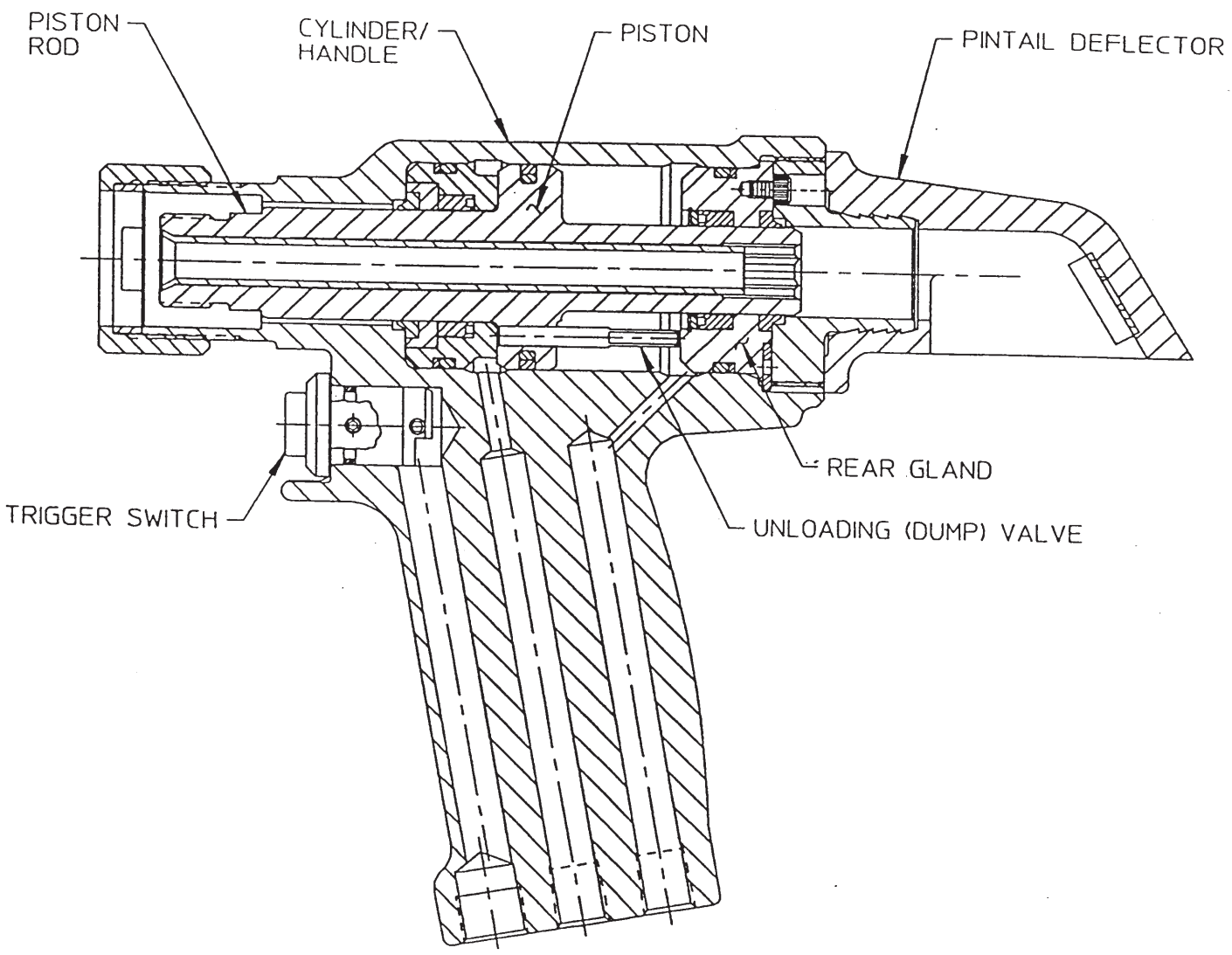
Hydraulic Fluid: *Automatic transmission fluid. DEXRON III, or equivalent.*

Fig. 1



Outside Dimensions

Fig. 2



Main Components

PRINCIPLE OF OPERATION

Refer to Figure 2

An electric trigger controls PULL and RETURN strokes of tool. Press trigger to direct hydraulic pressure to PULL side of piston - - fastener installation begins.

At end of PULL stroke, before trigger is released, piston uncovers flats of unloading valve - - pressure is unloaded by allowing fluid to flow back to POWERIG hydraulic unit. Release trigger at end of PULL stroke when fastener is installed - - pressure is directed to RETURN side of piston and moves piston forward. Nose assembly, with tool, is pushed off fastener.

CAUTION
Keep dirt and other foreign matter out of hydraulic systems of the tools, hoses, couplers and POWERIG Hydraulic Unit.
Do not let hose fittings and couplers contact a dirty floor or unclean working surface. Foreign matter in hydraulic fluid may cause hydraulic unit valves and tool valves to malfunction.

WARNINGS
Operators of Huck Installation equipment must always wear approved eye protection.

Only Huck POWERIG ® Hydraulic Units are recommended as the power source for Huck tools. Units that deliver high pressure for both PULL and RETURN, and are not equipped with relief valves, are specifically not recommended. Severe personal injury or damage to equipment may occur when using other units.

Proper PULL and RETURN pressures are important for proper function of Installation Tools. Severe personal injury or damage to equipment may occur without correct pressures. Gauge Set-up, P/N T-124833, is available for checking these pressures using instructions furnished with T-124833 and in applicable POWERIG Hydraulic Unit instruction manuals. See *Checking and Adjusting Output Pressures*.

PREPARATION FOR USE

CAUTION: Do not let disconnected hoses and couplers contact a dirty floor. Dirt/debris in hydraulic fluid causes valve failure in the equipment.

Checking and Adjusting Output Pressures

POWERIG ® Hydraulic Unit pressures must be checked and adjusted at first time start-up, after overhauling the unit and when troubleshooting.

⚠ ***WARNINGS*: Correct PULL and RETURN pressures are required for operator's safety and for installation tool's function. Gauge Set-up, T-124833, is available for checking pressures - - see tool's *Table I - Specifications* and INSTRUCTION MANUAL, T-124833. Failure to verify pressures may result in severe injury.**

Power Source Connection Precaution

Be sure to connect tool's hydraulic hoses to POWERIG Hydraulic Unit before connecting tool's switch control cord to unit. *IF NOT CONNECTED IN THIS ORDER*, severe personal injury may occur.

1. Use Huck POWERIG Hydraulic Unit, or equivalent, that has been prepared per INSTRUCTION MANUAL. Check both PULL and pressures and adjust to pressures given in *TABLE 1 - SPECIFICATIONS* of this manual. See both hydraulic unit's and T- 124833's manuals.
2. First, turn hydraulic unit to OFF, then, disconnect unit's power supply.
3. Connect tool's switch electrical cord to hydraulic unit.
4. Connect hydraulic unit to power supply. Turn unit to ON. Hold tool trigger depressed for 30 seconds; depress trigger a few times to cycle tool and to circulate hydraulic fluid. Observe action of tool and check for leaks. Turn unit to OFF.
5. Select nose assembly from NOSE ASSEMBLY SELECTION CHART for fastener to be installed. Disconnect tool's control switch electrical cord from hydraulic unit; disconnect hydraulic unit from power supply. Attach nose assembly to tool as given by instructions on NOSE ASSEMBLY DATA SHEET.
6. Reconnect hydraulic unit to power supply; reconnect tool's switch control cord to unit. Check operation of nose assembly - - see NOSE ASSEMBLY DATA SHEET - - install fasteners in test plate of correct thickness with proper size holes. Inspect installed fasteners. If fasteners do not pass inspection, see *TROUBLESHOOTING* to locate and correct tool malfunction.

OPERATING INSTRUCTIONS

WARNINGS

Do not pull on a pin unless fastener is placed in a workpiece with collar chamfer out toward tool. If collar is incorrectly placed, pin will eject from front with great force when pintail breaks off or when pin grooves are stripped. Also, broken pintails eject from deflector with speed and force - - *be sure pintail deflector is attached to tool, and directed safely. Pins/pintails, as described, can cause serious injury.*

Be sure of adequate clearance for both tool and operator's hands before proceeding as severe personal injury may occur.

CAUTION

Remove excessive gap from between sheets for enough of the pintail to stick out of the collar for *all the jaw teeth to grip into pintail grooves.* Jaws not fully gripping pintail grooves will be stripped or broken.

HUCKBOLT ® Fastener Installation

Place pin in work-hole and place collar over pin - - see ***WARNINGS***. (if collar has only one tapered end, that end ***MUST*** be out toward tool.) Hold pin in hole. Push nose assembly onto pin protruding from collar until anvil touches collar Press trigger and hold down until collar is swaged and pintail breaks. Release trigger - - tool/nose returns to starting position and is ready for next installation cycle.

Blind Fastener Installation

Fastener may be placed in work-hole or in end of nose assembly. Hold tool/nose at a right angle against work. Press trigger and hold down until fastener is installed and pintail breaks. Release trigger - - tool/nose returns to starting position and is ready for next installation cycle.

CAUTION

Do not abuse tool by dropping it, using as a hammer or otherwise causing unnecessary wear and tear. Reasonable care of tools by operators is an important factor in maintaining tool efficiency and reducing downtime.

MAINTENANCE

Preventive Maintenance

NOTE - Refer to the applicable section for *DISASSEMBLY* or *ASSEMBLY*. For extra information refer to *TROUBLESHOOTING* and illustrations.

System Inspection

Operating efficiency of the tool is directly related to performance of complete system, including tool with nose assembly, hydraulic hoses, trigger and control cord, and POWERIG Hydraulic Unit. Therefore, an effective preventive maintenance program includes scheduled inspections of the system to detect and correct minor troubles.

1. Inspect tool and nose assembly for external damage.

2. Verify that hydraulic hose fittings and couplings, and electrical connections are secure.

3. Inspect hydraulic hoses for damage. Replace hoses if damaged. Do not use hoses to carry tools.

4. Observe tool, hoses and POWERIG Hydraulic Unit during operation to detect abnormal heating, leaks or vibration.

POWERIG® Hydraulic Unit Maintenance

Refer to the applicable POWERIG Hydraulic Unit Instruction Manual.

Tool Maintenance

At regular intervals, depending upon use, replace all seals, wipers and back-up rings in tool. Service Kits and hoses should be kept on hand. Inspect cylinder bore, piston and piston rod, and unloading valve for scored surfaces, excessive wear or damage, and replace as necessary. Always replace seals, wipers and back-up rings whenever the tool is disassembled for any reason.

Nose Assembly Maintenance

Nose assemblies with UNITIZED™ jaws must be disassembled and cleaned in mineral spirits or isopropyl alcohol. **Do not let UNITIZED jaws (urethane) soak in solvent. *Do not use solvents that cause urethane to swell.* Dry components immediately after cleaning.** Use sharp “pick” to remove particles packed in jaw grooves. Reassemble per instructions on applicable Nose Assembly Data Sheet.

MAINTENANCE (CONT.)

General Precautions

During disassembly and assembly, take the following precautions to avoid damaging tool or components:

(A) A clean, well-lighted area should be available for servicing the tool. Special care must be taken to prevent contamination of hydraulic systems.

(B) Use soft materials, such as brass, aluminum or wood, to protect the tool when applying pressure. Only standard hand tools are required. Brass drifts, wood blocks, a vise with soft jaws and an arbor press will pre vent damaging tool. Standard tools available Huck are listed in this manual.

(C) Apply continuous strong pressure, rather than sharp blows, to disassemble or assem ble a component. An arbor press provides steady pressure to press a component in or out of an assembly.

(D) Never continue to force a component if it “hangs-up” due to misalignment. Reverse the procedure to correct misalignment and start over.

(E) Smear SUPER O-LUBE*, or equivalent lubricant, on seals and mating surfaces to facilitate assembly and to prevent damage to seals (SUPER O-LUBE is available, in a tube as Part Number 505476, from Huck.) *SUPER O-LUBE is a trademark of Parker Seal

(F) Rub SLIC-TITE TEFLON* thread compound, or equivalent, on pipe threads, to aid assem bly and sealing. **CAUTION: DO NOT USE TEFLON TAPE ON PIPE THREADS - -** shredded particles cause valves to malfunction. (TEFLON compound is available from Huck in stick form as P/N 503237.) *TEFLON is a trademark of E.I. DuPont de Nemours & Co.

(G) All parts must be handled carefluly and examined for damage or wear. Always replace seals, wipers and back-up rings when tool is disassembled for any reason. Components should be disassembled and assembled in a straight line without bending, cocking, or undue force. Disassembly and assembly procedures outlined in this manual should be followed.

TROUBLESHOOTING

Always check out simplest possible cause of malfunction first. For example, switch turned off or power cord not connected. Then proceed logically, eliminating each possible cause until the defective circuit or part is located. Where possible, substitute known good parts for suspected bad parts. Use TROUBLESHOOTING chart as an aid in locating and correcting malfunction.

1. **Tool fails to operate when trigger is depressed:**
   a. Inoperative POWERIG® Hydraulic Unit. See applicable instruction manual.
   b. Loose or disconnected control cord.
   c. Damaged trigger assembly.
   d. Loose or faulty hydraulic hose couplings.
   e. Unloading valve not installed in tool.

2. **Tool operates in reverse:**
   a. Reversed hydraulic hose connections between hydraulic unit and tool.

3. **Tool leaks hydraulic fluid:**
   a. Depending on where leak occurs, defective or worn O-rings, or loose hydraulic hose connection at tool.

4. **Hydraulic couplers leak fluid:**
   a. Damaged or worn O-ring in coupler body. See Figure 4.

5. **Hydraulic fluid overheats:**
   a. Hydraulic unit not operating properly. See applicable POWERIG Hydraulic Unit Instruction Manual.
   b. Unloading valve installed backwards.

6. **Tool operates erratically and fails to install fastener properly:**
   a. Low or erratic hydraulic pressure supply - air in system. See applicable POWERIG Instruction Manual.
   b. Damaged or excessively worn piston O-ring in tool.
   c. Unloading valve installed backwards.
   d. Excessive wear or scoring of sliding surfaces of tool parts.
   e. Excessive wear of unloading valve.

TROUBLESHOOTING (CONT.)

7. **Pull grooves on fastener pintail stripped during pull stroke:**
   a. Operator not sliding jaws completely onto fastener pintail.
   b. Incorrect fastener length.
   c. Worn or damaged jaw segments.
   d. Metal particles accumulated in pull grooves of jaw segments.
   e. Excessive sheet gap.
   f. Nose assembly not properly attached - see *NOSE ASSEMBLY DATA SHEET*

8. **Collar of HUCKBOLT® Fastener not completely swaged:**
   a. Improper tool operation. See 6.
   b. Scored anvil in nose assembly.

9. **Shear collar on Huck blind fastener not properly installed:**
   a. Improper tool operation. See 6.
   b. Worn or damaged driving anvil in nose assembly.

10. **Tool "hangs-up" on swaged collar of HUCKBOLT Fastener:**
    a. Improper tool operation. See 6.
    b. RETURN pressure too low.
    c. Nose assembly not properly attached - see NOSE DATA SHEET.

11. **Pintail of fastener fails to break:**
    a. Improper tool operation. See 6.
    b. Pull grooves on fastener stripped. See 7.
    c. Worn piston and/or unloading valve.
    d. Hydraulic pressure too low.
    e. Damaged O-ring on piston.

12. **Operator cannot slide nose assembly (completely) onto fastener:**
    a. Broken pintails jammed in tool. Install pintail tube if broken pintails will pass through.

Spare Parts and Service Kit

The quantity of spare parts that should be kept on hand varies with the application and number of tools in service.

Spare service kits, 2580KIT, containing perishable parts such as seals, back-up rings,

DISASSEMBLY

Refer to *MAINTENANCE: General Precautions* and illustrations.

The following procedure is for complete disassembly - - disassemble only sub-assemblies necessary to check and replace damaged seals, wipers, back-up rings and components. ***Always replace seals, wiper, O-rings and back-up rings of disassembled sub-assemblies- -*** see ***CAUTION*** at beginning of *ASSEMBLY*.

WARNING
Be sure electric control cord is disconnected from POWERIG® Hydraulic Unit *before* disconnecting tool's hoses from hydraulic unit. *ALWAYS* disconnect connections in this order to prevent possible severe personal injury.

1. Disconnect electrical connector. Uncouple tool hydraulic hoses.

2. Remove tool's retaining nut and nose assembly anvil. Unscrew collet from tool's piston rod.

3. Unscrew coupling nipple and coupling body. Drain hydraulic hoses into container - - discard fluid.

4. Push rearward on piston until remaining hydraulic fluid is drained into container - - discard fluid.

5. ***NOTE: Do not remove hydraulic hoses from tool unless replacing hoses.*** If necessary to remove hoses, uncover hose fittings by sliding plastic shrouds back.

6. ***2580:*** Loosen strain relief grommet. Loosen set screw and carefully pry switch out with a small screwdriver. Loosen two wires at rear of switch. Remove switch from cord. Pull cord out. Remove grommet. Disassemble electrical connector to replace connector, or to rewire it.

   A2580: Unscrew air trigger assembly. Loosen air fitting. Pull out hose. Loosen air quick disconnect and remove.

7. Remove pintail deflector, 123144,- - twist and pull in the same motion.

8. Remove socket screw from rear gland and barbed retainer.

9. Insert two 5/16 pins in opposite holes in rear of barbed retainer. Using bar placed between pins, unscrew retainer.

10. Remove dump valve from open cylinder.

11. See Fig. 5- - place Spacer, 123112-1, over threaded end of piston. Screw Piston Assembly Tool onto piston. Press or drive piston, front gland and rear gland out of cylinder - - place hose ends in container to catch oil that is forced out by piston.

12. Use a small diameter dull pointed rod to remove all O-rings and seals - - clean parts and examine for wear and other defects.

ASSEMBLY

Refer to appropriate illustrations and *MAINTENANCE: General Precautions* - - clean out O-ring grooves and reinstall perishable parts - - see below.

***CAUTION:* See special instructions in step 5. below for replacing seals. Use Service Kit - - always replace seals, wipers, O-rings and back-up rings of disassembled sub-assemblies.**

1. Install GLYD RING assembly on piston as follows: Place the special O-ring in groove. Roll glyd ring's diameter to a diameter smaller than piston before placing glyd ring on top of O-ring - - coat glyd ring with suitable lubricant to insure that ring stays in place during piston installation.

2. Taking care not to pinch inner ring, press POLY-SEAL into front gland housing. Install O-ring and back-up ring on front gland assembly.

3. See Fig. 6. Screw Assembly Tool, 123111-1, onto piston.

4. ***CAUTION:*** Lubricate POLY-SEALS inside diameter.

NOTE: To keep POLY-SEAL in front gland, push front wiper housing into front gland. Hold housing against POLY-SEAL while pressing front gland/POLY-SEAL onto piston.

5. ***CAUTION:*** **Be sure that seal does not hang up on edge of piston chamfer.** See NOTE above - - press with suitable pressing drift against back of piston. While holding wiper housing in place, guide POLY-SEAL onto piston.

6. Press wiper into groove on wiper housing.

NOTE: Thread retaining nut onto cylinder to act as stand-off.

7. Lubricate piston's outer seal and POLY-SEAL.

8. See Fig. 6 - - install GLYD RING Insertion Tool, 121694-2580 into cylinder to prevent damage to GLYD RING Assembly.

9. Carefluly drive, or press, piston into cylinder.

10. Remove Tools, 121694-2580 and 123111-1. Install relief valve into piston with four flats toward ***REAR*** of tool.

11. *Install following in rear gland:* O-ring and back-up ring; POLY-SEAL, spacer and retaining ring; press assembled gland into cylinder; press wiper into groove in rear gland.

12. Align recess in rear gland with groove in cylinder. Install locking disc.

13. Screw barbed retainer into cylinder until it bottoms out. Back retainer out to first visible threaded hole in rear gland. Install and tight en locking screw to 35 +/-3 in. lbs. dash numbers correspond to the O-ring dash numbers.

14. ***CAUTION: Do not use TEFLON tape on pipe threads - -*** see *MAINTENANCE: General Precautions.* If hydraulic hoses have been removed, thread hoses into handle. Slide shrouds over fittings.

ASSEMBLY (CONT.)

15. ***2580:*** Assemble electrical cord to connector. Screw strain relief grommet into handle. Push cord through grommet. Attach cord to trigger switch. Press switch into handle and tighten set screw against switch. Pull excess cord down through handle and strain relief grommet. Tighten grommet.

    A2580: Thread hose fitting into handle. Attach quick disconnect to airline. Attach air line to to handle's hose fitting. Screw air trig ger assembly into handle's trigger fitting and tighten set screw against fitting.

16. See ***CAUTION*** in 14. - - screw coupling nipple onto PULL pressure hose (from "P' port of tool). Screw coupling body onto RETURN pressure hose.

17. Before attaching nose assembly and using tool, read entire *PREPARATION FOR USE* section. Hold 3/8" hex wrench in back of tool when tightening collet. Use pintail tube if necessary.

CAUTION: Anvils with ears must have stop installed in position as shown to prevent damage to ears - - slide stop over anvil before installing retaining nut.

18. See ***WARNING*** in *DISASSEMBLY* and reverse the given procedure i. e. ***CONNECT HOSES FIRST***. and then, connect electrical control cord.

Subassembly Part Numbers and Notes

Refer to Illustrations

1 A matching 12 ft. Hose Kit, 122854, is available.

2 123139 - Front Grand Assembly includes:

3 123136 - Piston Assembly includes:

4 123142 - Rear Gland Assembly includes:

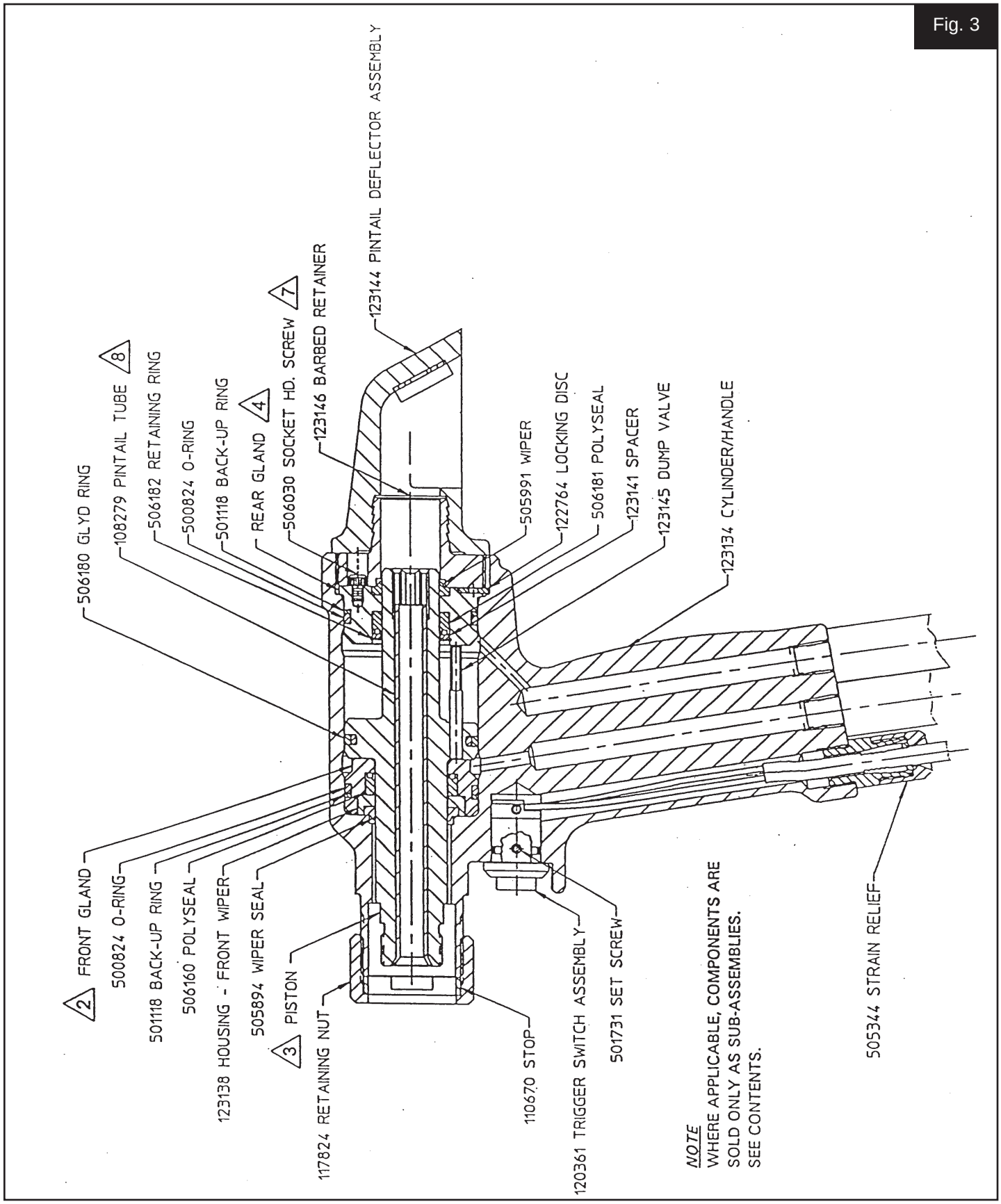
5 123338 - Trigger Cord Assembly includes:

6 **CAUTION:** Install cups of POLY-SEALS and wipers as shown.

7 Torque screw, 506030, to 20+/-3 in. lbs.

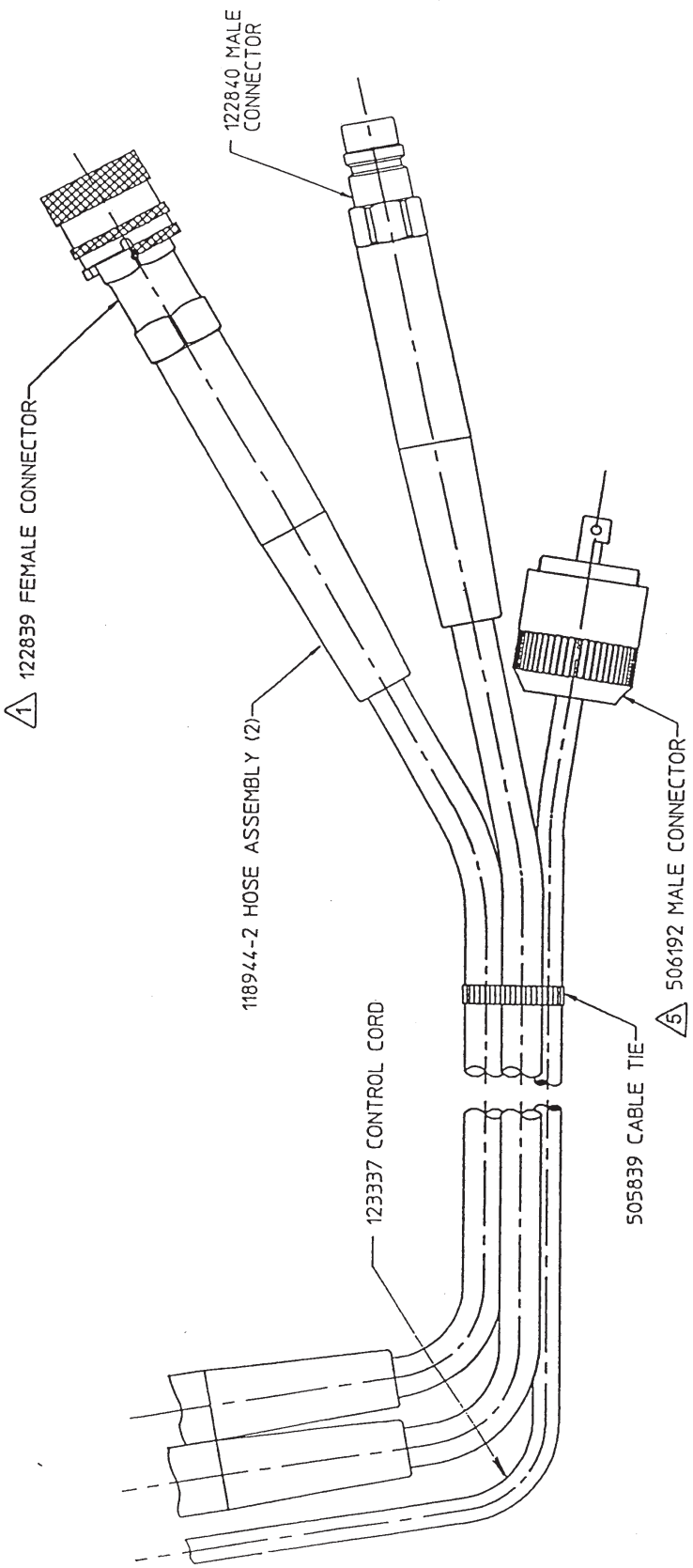
8 Blind fasteners require pintail tube, 108279.

Fig. 3



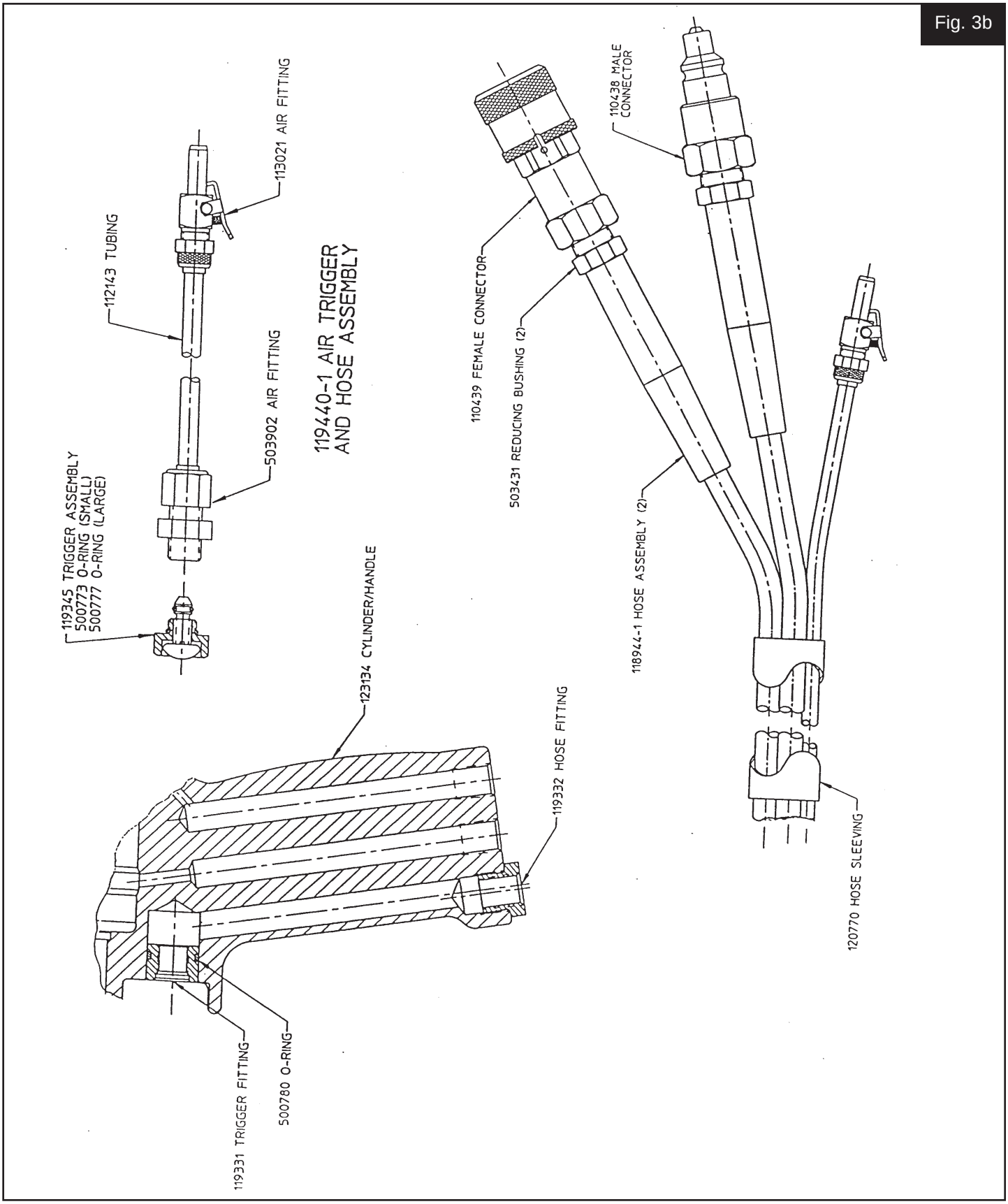
2580 Series Sectional View

Fig. 3a



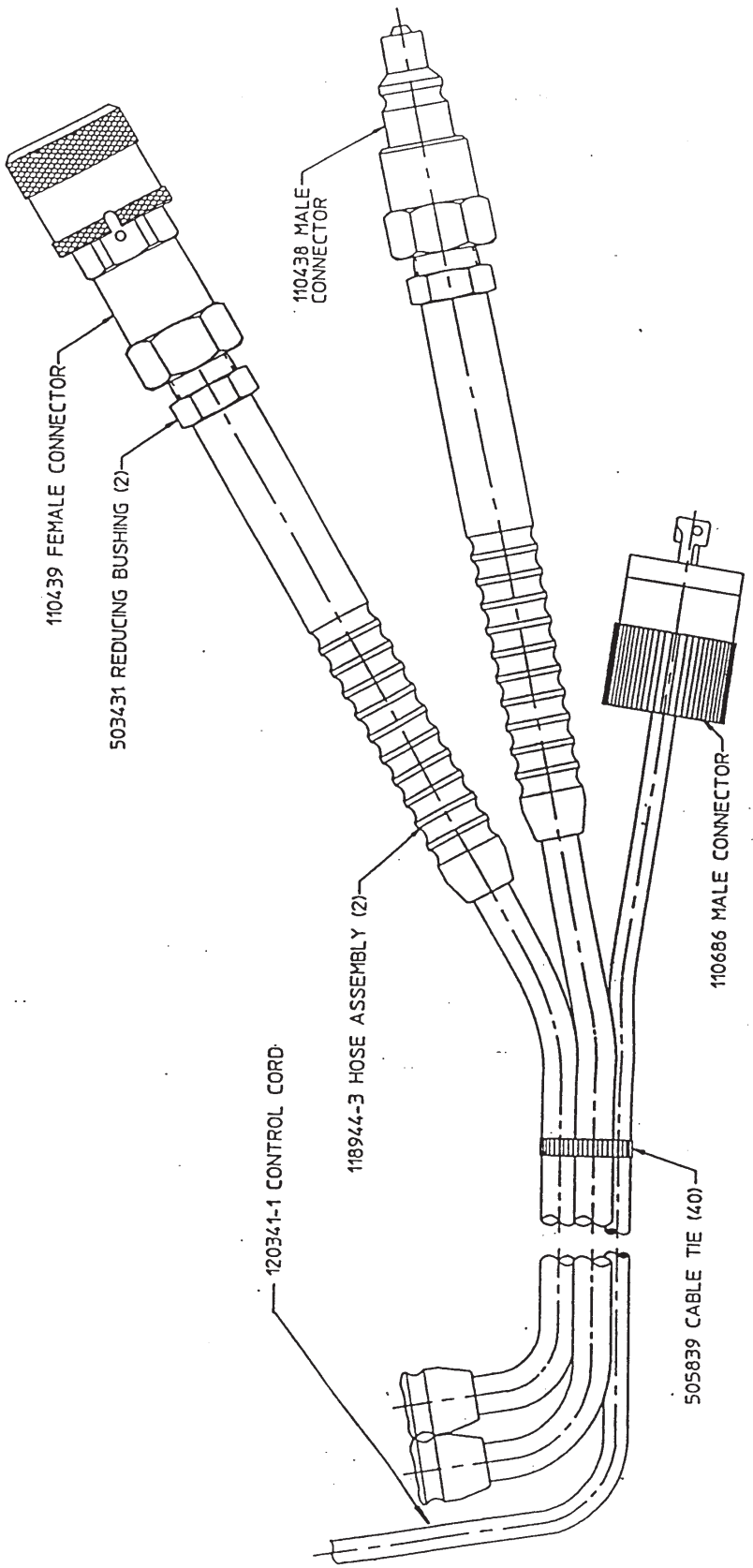
2580 Sectional View

Fig. 3b



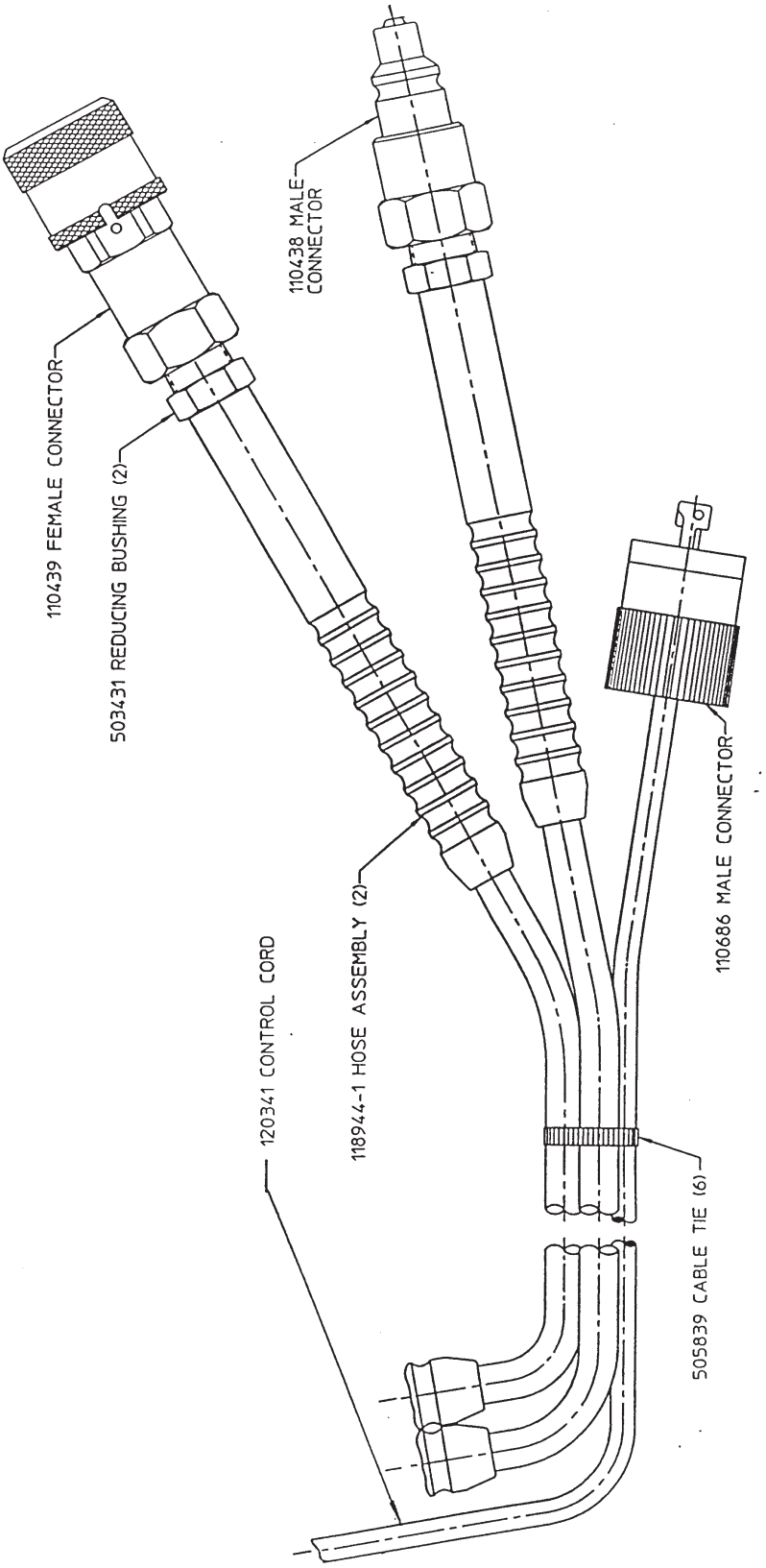
A2580 Sectional View

Fig. 3c



2580-25 Sectional View

Fig. 3d



2580-12 Sectional View

Table 2 - Service Kit, 2580KIT

Part No.	Description	Quan.
500824	O-RING AS568-127 C366Y 70D	2
501118	BACK-UP RING S-11248-127	2
500780	O-RING AS568-014 C366Y 70D	1
505991	WIPER MICRODOT #959-4	1
505894	WIPER MICRODOT #959-7	1
506160	POLY-SEAL MICRODOT #125-00.875-250B	1
506181	POLY-SEAL MICRODOT #125-00.687-250B	1
506180	GLYD-RING SHAM 32G01625A46	1
* 500777	O-RING AS568-011 C366Y 70D	1
* 500773	O-RING AS568-007 C366Y 70D	1
* 504438	O-RING AS568-111 CU747 75D	1
* 501102	BACK-UP RING S-11248-111	1
8-2580	ASSEMBLY DWG. 2580 H.I.T.	1
* 8-A2580	ASSEMBLY DWG. A2580 H.I.T.	1

- Extra part numbers shown with asterisks are for A2580.

Specifications for Standard Parts

1. All part numbers shown in this manual are available from Huck. The 500000 series part numbers are standard parts which can generally be purchased locally.

2. O-ring sizes are specified AS568 dash numbers (AS568 is an Aerospace Size Standard for O-rings and formerly was known as ARP). Table 2 - Service Kit has specific material and durometer just after the identifying AS568- dash numbers.

3. Back-up rings are W.S. Shamban & Go. series S-11248, single turn TEFLON (MS-28774), or equivalent. The dash numbers correspond to the O-ring dash numbers.

Conversion Kit, 123020

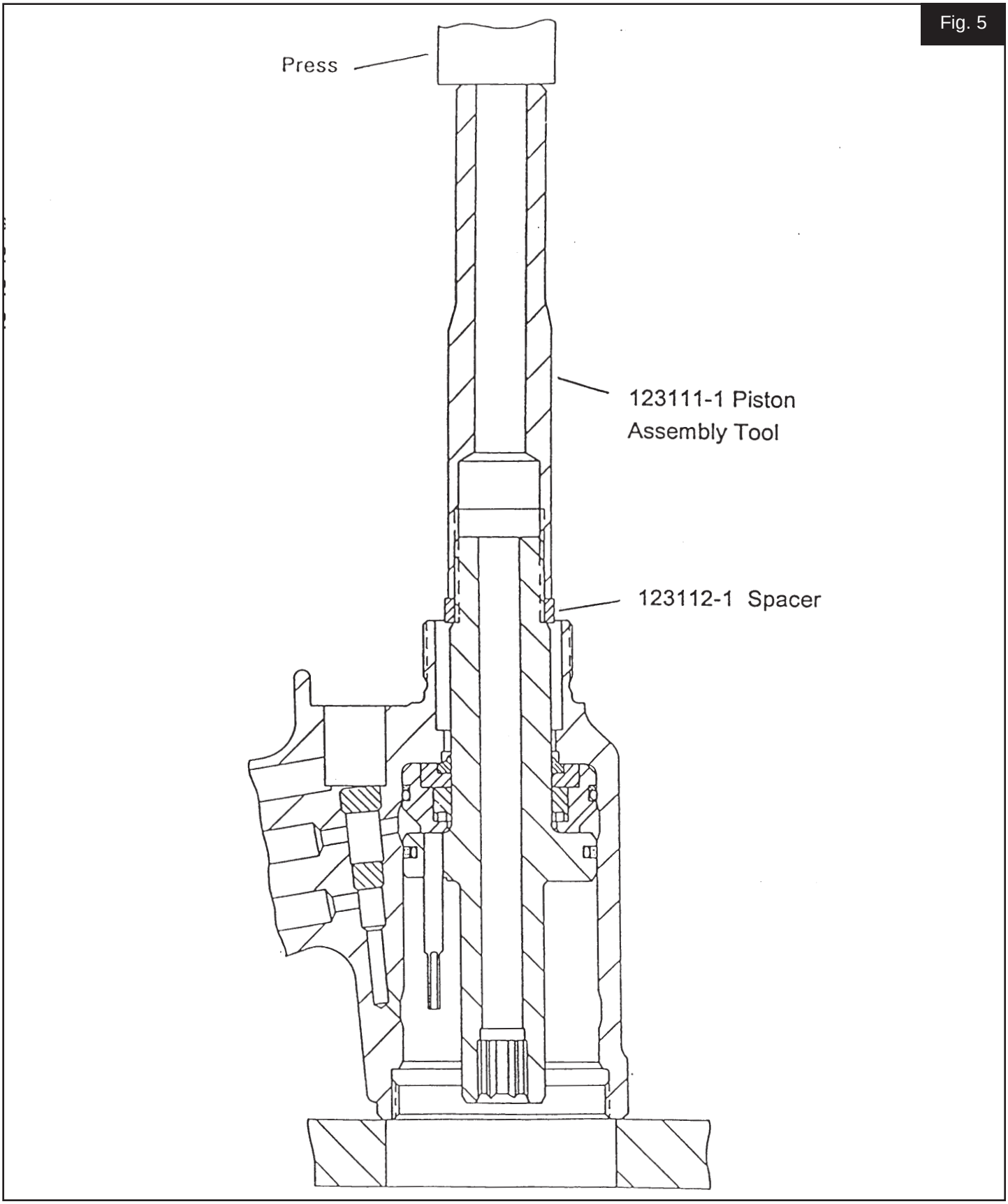
Conversion Kit, 123020, is supplied with each tool. Changing to kit's older, heavier type hoses will then accommodate the following extension hose kits:

110838 12ft.
110839 26ft.
110840 38ft.
110841 52ft.

See appropriate section of *DISASSEMBLY* and *ASSEMBLY*- - ***CAUTION: Do not use TEFLON tape on pipe threads*** - - see *MAINTENANCE: General Precautions.*

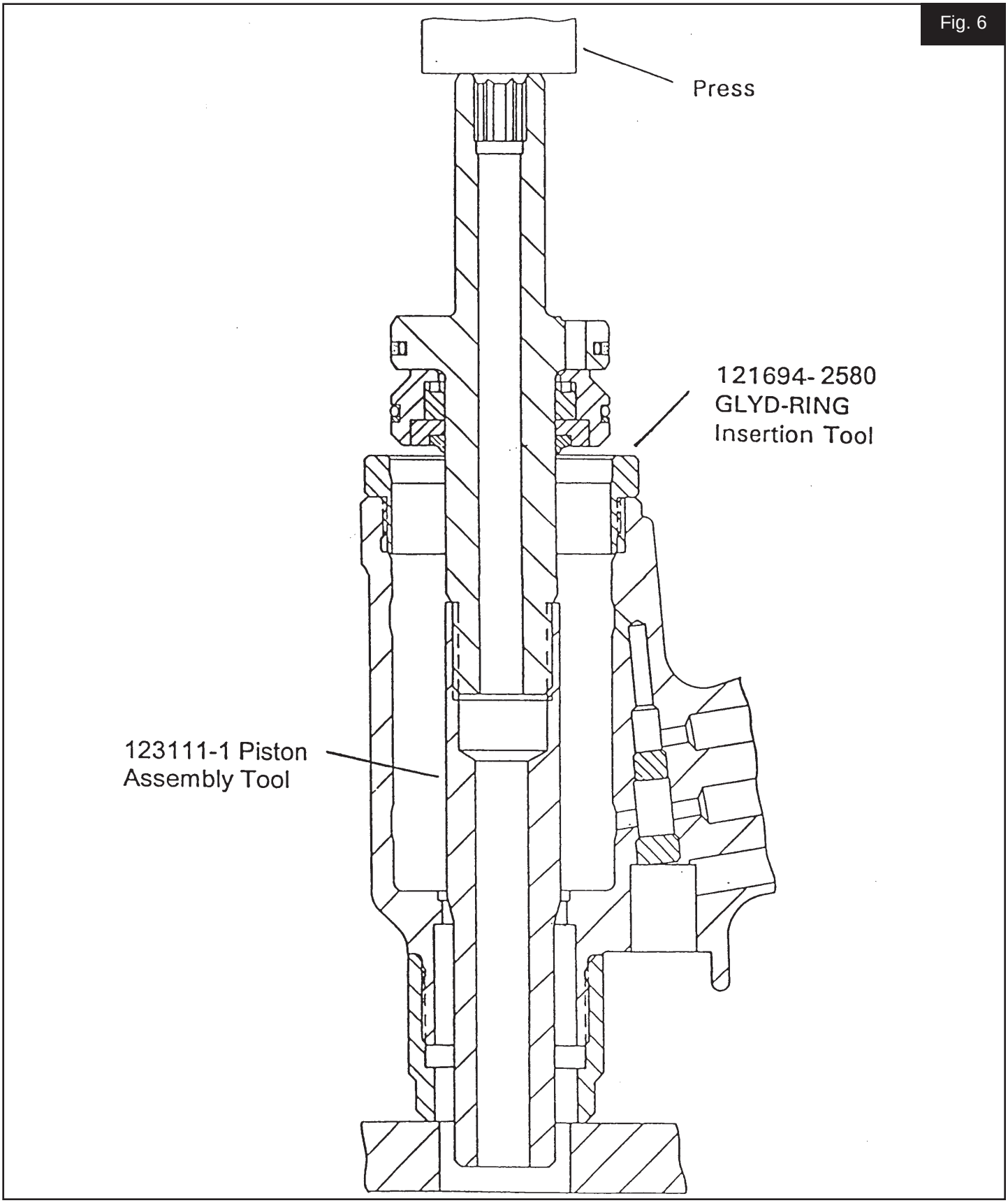
123020 - Conversion Kit Includes:
110439 - Female Connector (1)
110438 - Male Connector (1)
503431 - Reducing Bushing (2)
110686 - Electric Male Connector (1)
505839 - Cable Tie (1)

Fig. 5



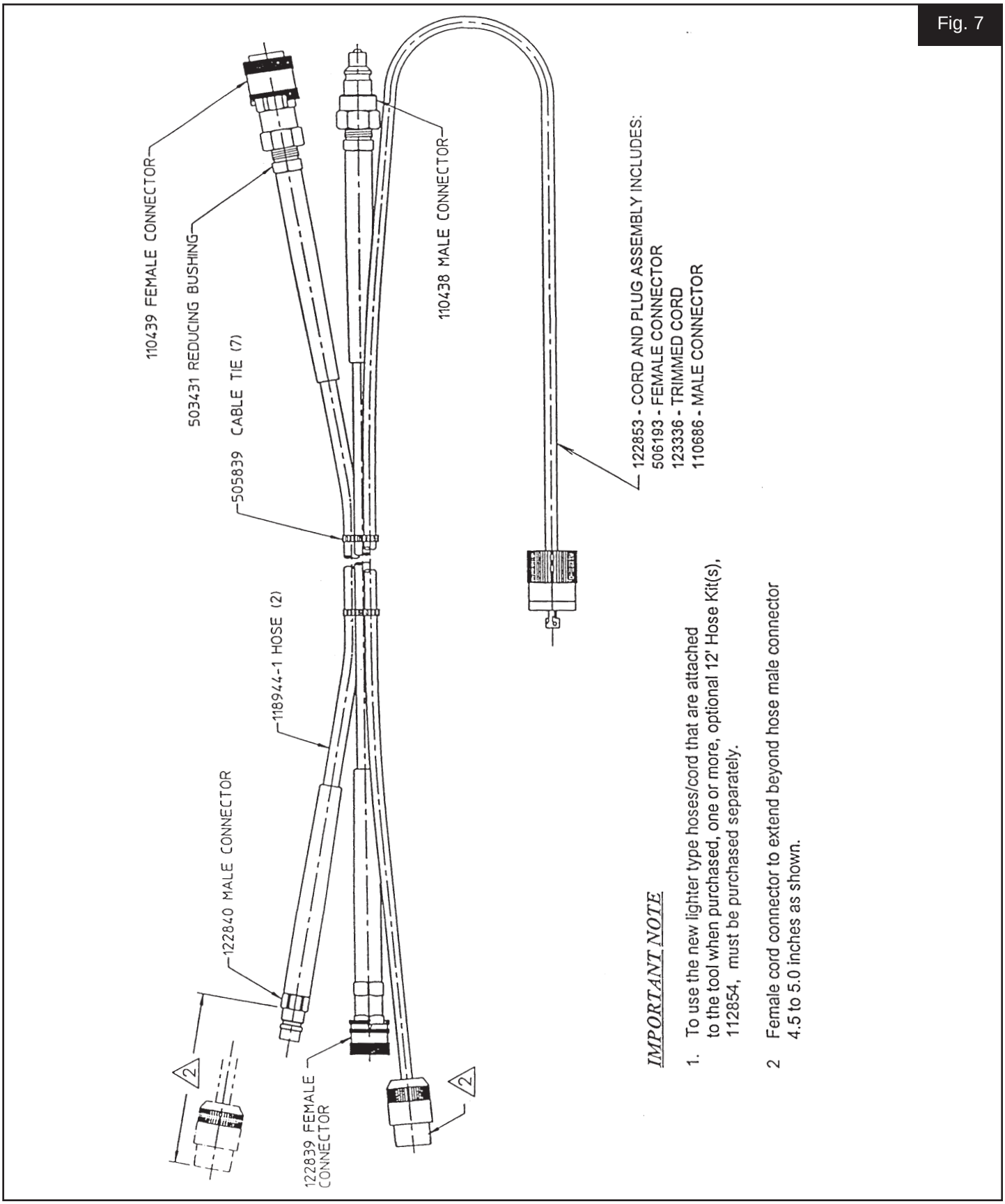
Removing Piston

Fig. 6



Installing Piston

Fig. 7



Optional Hose Kit, 122854

Air and Hydraulic Conversion Kit, 125149

Converts existing tool into the -2 version with 2’ hoses.

Part No.	Description	Quan.
118944-2	Light Weight Hi-pressure Hose	2
122839	Female Q. D. Hyd. Fitting	1
122840	Male Q. D. Hyd. Fitting	1
112143-2	Air Hose	1
506973	Female Straight Connector	1
506267	Male Q. D. Air Fitting	1

Stroke Limiter Kit, 125143

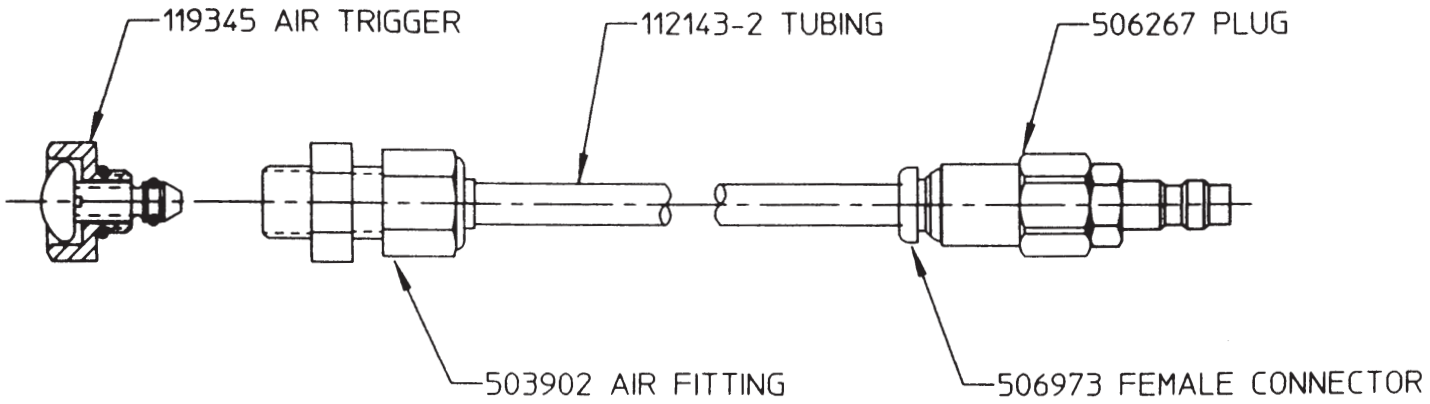
Changes stroke of any 2580 tool to .625 in.

Part No.	Description	Quan.
125143	Stroke Limiter	1
123145-1	Dump Valve	1

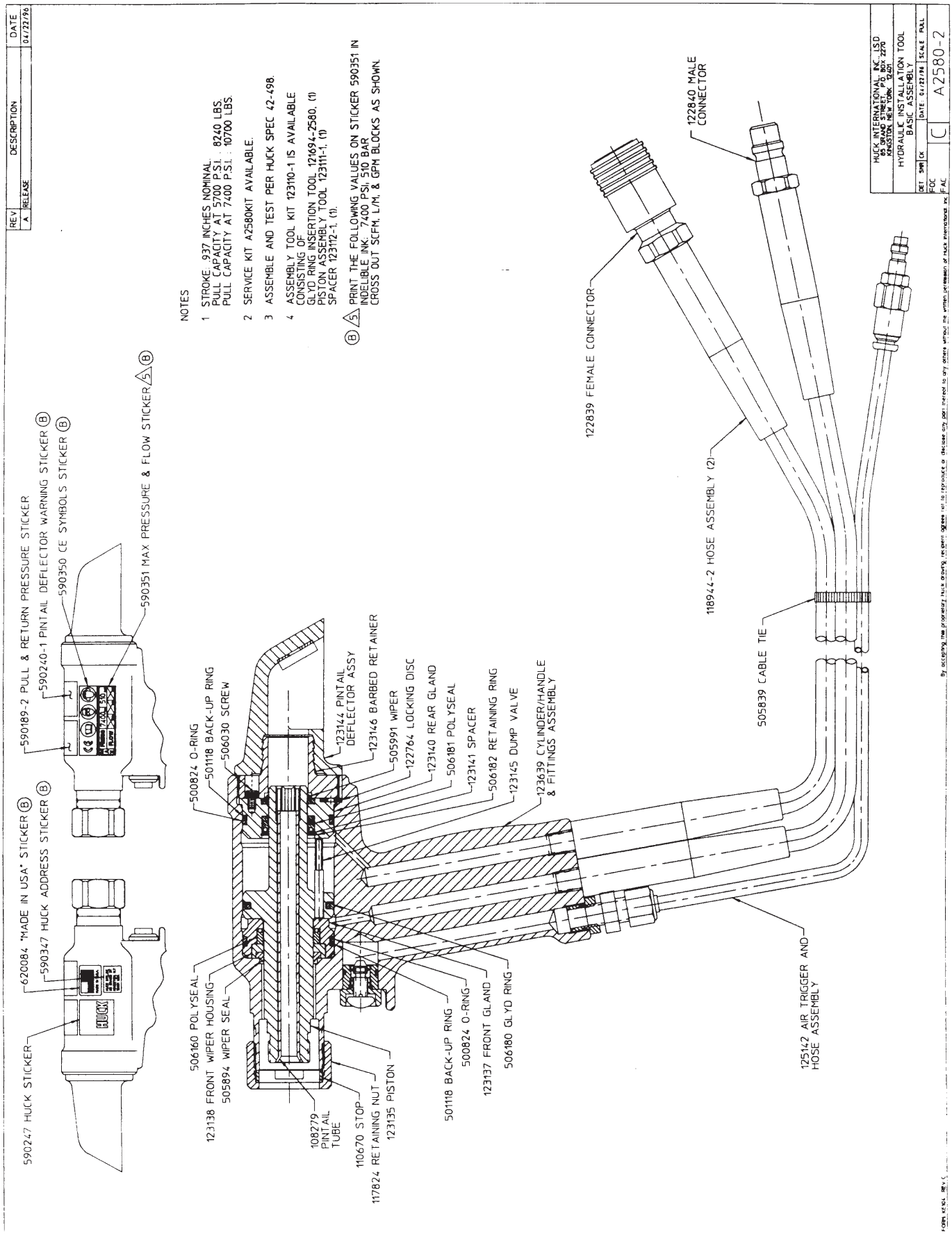
REV	DESCRIPTION	DATE
A	RELEASE	04/22/96

NOTES:

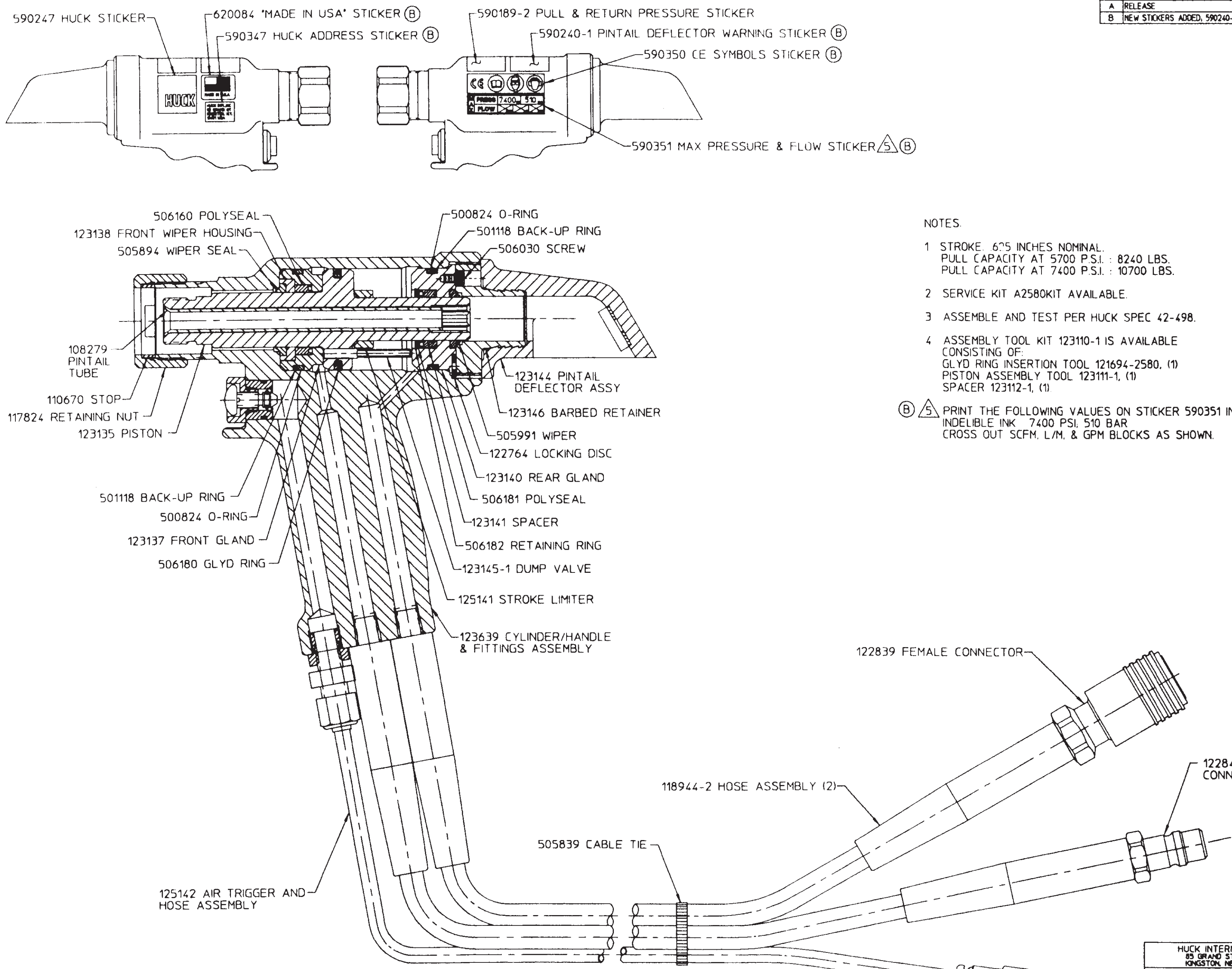
1 INCLUDE 119345 AND CABLE TIE P/N 505833 LOOSE IN BAG.



MATERIAL: -	SPEC:	TOLERANCES UNLESS OTHERWISE SPECIFIED: (ALL DIMENSIONS ARE IN INCHES)	HUCK INTERNATIONAL, INC., I.S.D. 85 GRAND STREET, P.O. BOX 2270 KINGSTON, NEW YORK 12401
HARDNESS: -	(RAW OR STOCKED STATE)	.XX, .XXX ± -	AIR TRIGGER, & HOSE ASSEMBLY
HEAT TREAT TO: -	SPEC:	INT. COR. RADII -	
SURFACE TREAT: -	SPEC:	BREAK EDGES -	DET: SMR CK: HR DATE: 04/22/96 SCALE: FULL
SURFACE FINISH NOT TO EXCEED: Ra		ANGLES ± -	FOC. TFF FAC. A 125142
IDENTIFICATION PER SPEC 42-311: ★ BAG		FINAL ASSY:	
SURFACES TO BE ○, //, ⌖, ⊥, & ▱ WITHIN T.I.R.			


REV
DESCRIPTION
DATE
A RELEASE 04/22/96
NOTES
1 STROKE .937 INCHES NOMINAL
PULL CAPACITY AT 5700 P.S.I. : 8240 LBS.
PULL CAPACITY AT 7400 P.S.I. : 10700 LBS.
2 SERVICE KIT A2580KIT AVAILABLE.
3 ASSEMBLE AND TEST PER HUCK SPEC 42-498.
4 ASSEMBLY TOOL KIT 123110-1 IS AVAILABLE CONSISTING OF
GLYD RING INSERTION TOOL 121694-2580. (1)
PISTON ASSEMBLY TOOL 123111-1. (1)
SPACER 123112-1. (1).
5 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK. 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.
590247 HUCK STICKER
620084 "MADE IN USA" STICKER
590347 HUCK ADDRESS STICKER
590189-2 PULL & RETURN PRESSURE STICKER
590240-1 PINTAIL DEFLECTOR WARNING STICKER
590350 CE SYMBOLS STICKER
590351 MAX PRESSURE & FLOW STICKER
500824 O-RING
501118 BACK-UP RING
506030 SCREW
123144 PINTAIL DEFLECTOR ASSY
123146 BARBED RETAINER
505991 WIPER
122764 LOCKING DISC
123140 REAR GLAND
506181 POLYSEAL
123141 SPACER
506182 RETAINING RING
123145 DUMP VALVE
123639 CYLINDER/HANDLE & FITTINGS ASSEMBLY
506160 POLYSEAL
123138 FRONT WIPER HOUSING
505894 WIPER SEAL
108279 PINTAIL TUBE
110670 STOP
117824 RETAINING NUT
123135 PISTON
501118 BACK-UP RING
500824 O-RING
123137 FRONT GLAND
506180 GLYD RING
122839 FEMALE CONNECTOR
122840 MALE CONNECTOR
118944-2 HOSE ASSEMBLY (2)
505839 CABLE TIE
125142 AIR TRIGGER AND HOSE ASSEMBLY
HUCK INTERNATIONAL INC. LSD
95 GRAND STREET, P.O. BOX 2270
KINGSTON, NEW YORK 12401
HYDRAULIC INSTALLATION TOOL
BASIC ASSEMBLY
DET SHT CK
DATE 04/22/96 SCALE FULL
FOC
FAC
C A2580-2

REV	DESCRIPTION	DATE
A	RELEASE	04/22/96
B	NEW STICKERS ADDED, 590240-1 WAS 590240	05/30/96



NOTES:

1. STROKE: .625 INCHES NOMINAL.
   PULL CAPACITY AT 5700 P.S.I. : 8240 LBS.
   PULL CAPACITY AT 7400 P.S.I. : 10700 LBS.
2. SERVICE KIT A2580KIT AVAILABLE.
3. ASSEMBLE AND TEST PER HUCK SPEC 42-498.
4. ASSEMBLY TOOL KIT 123110-1 IS AVAILABLE CONSISTING OF:
   GLYD RING INSERTION TOOL 121694-2580, (1)
   PISTON ASSEMBLY TOOL 123111-1, (1)
   SPACER 123112-1, (1)

(B) /5\ PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK: 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.

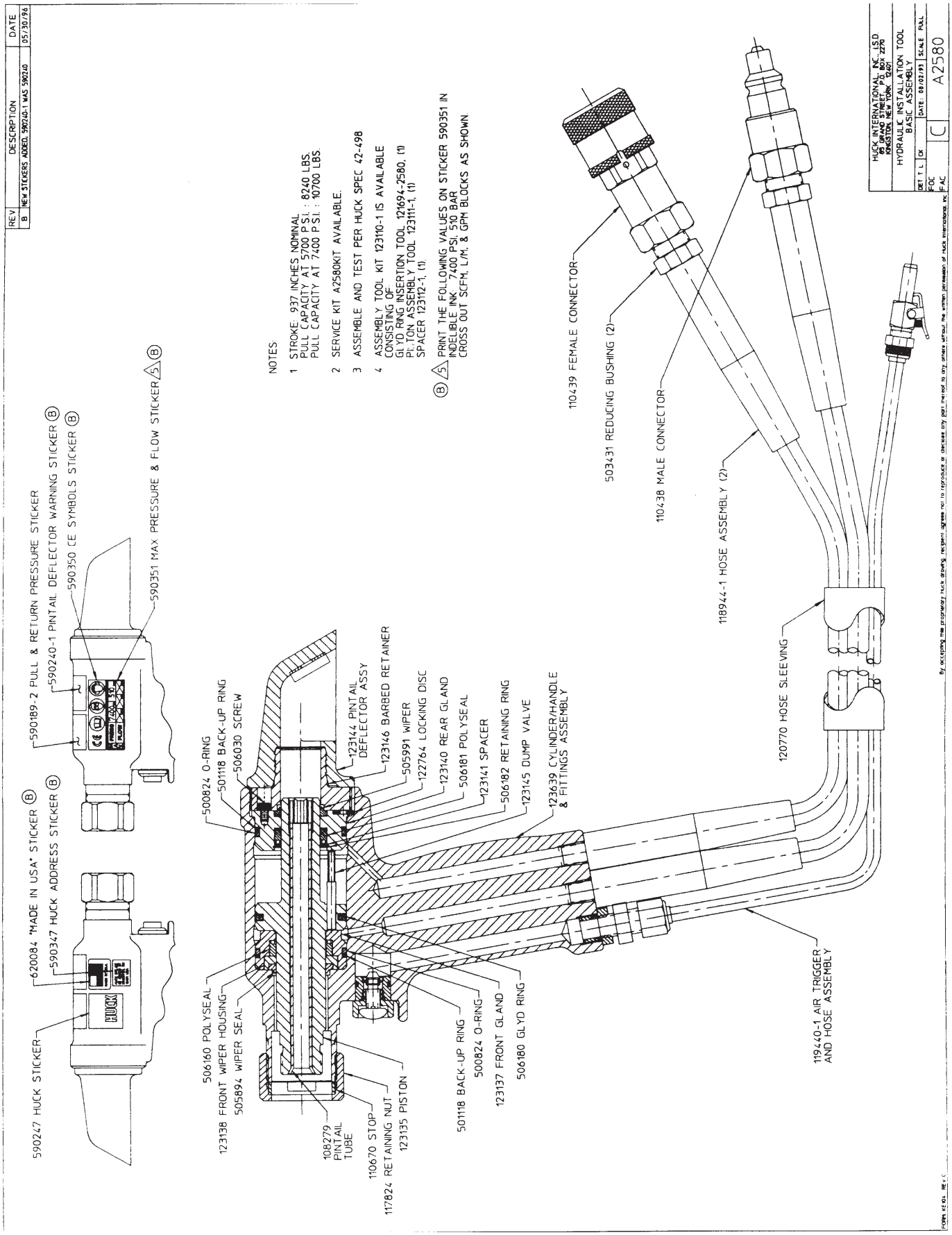
HUCK INTERNATIONAL, INC., I.S.D.
85 GRAND STREET, P.O. BOX 2270
KINGSTON, NEW YORK 12401

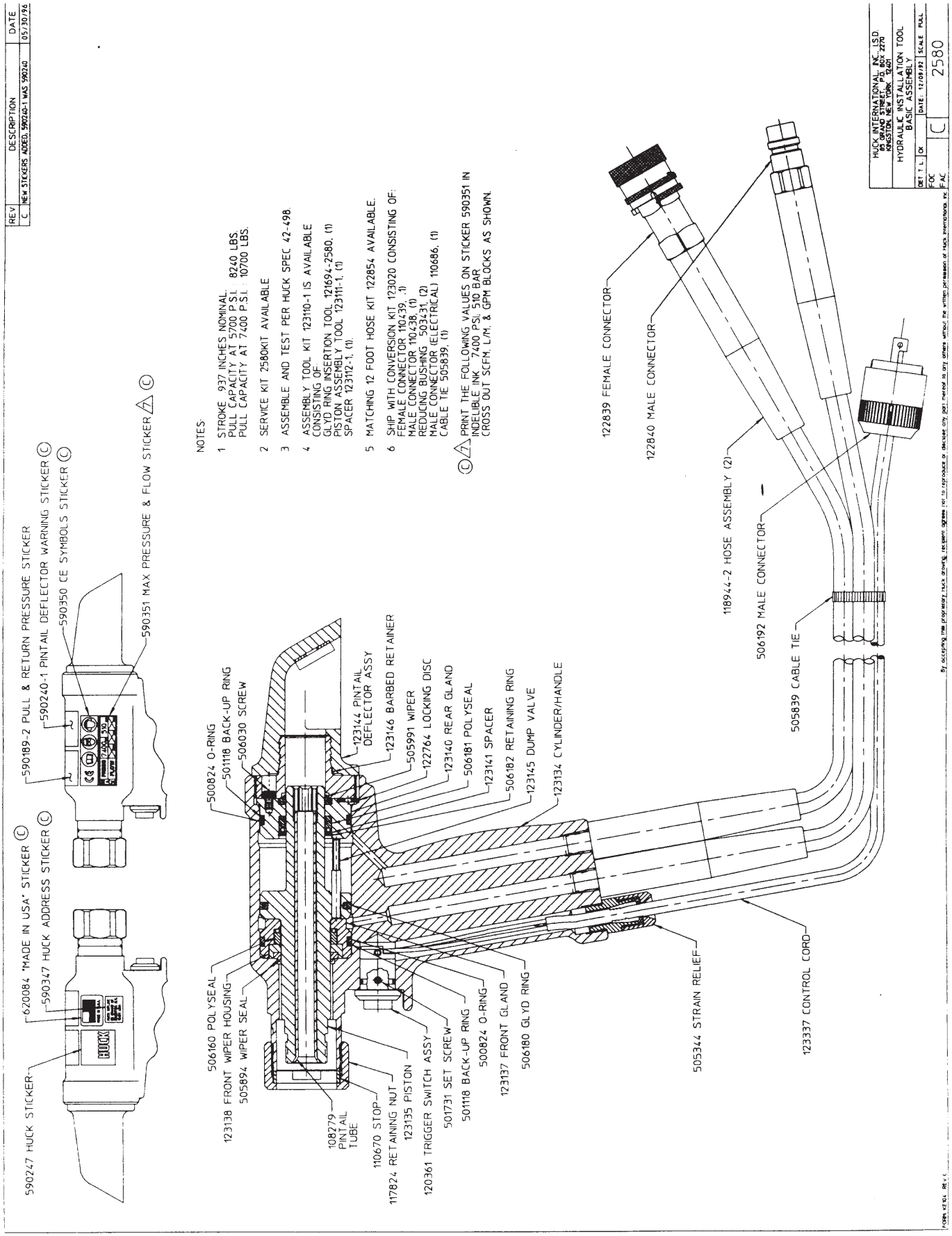
HYDRAULIC INSTALLATION TOOL
BASIC ASSEMBLY

DET SMR | CK | DATE: 04/22/96 | SCALE FULL

FOC
FAC
C A2580-625-2

FORM KE104 REV C


REV
DESCRIPTION
DATE
B NEW STICKERS ADDED, 590240-1 WAS 590240
05/30/96
590247 HUCK STICKER
620084 "MADE IN USA" STICKER Ⓑ
590347 HUCK ADDRESS STICKER Ⓑ
590189-2 PULL & RETURN PRESSURE STICKER
590240-1 PINTAIL DEFLECTOR WARNING STICKER Ⓑ
590350 CE SYMBOLS STICKER Ⓑ
590351 MAX PRESSURE & FLOW STICKER △5 Ⓑ
NOTES
1 STROKE: .937 INCHES NOMINAL
PULL CAPACITY AT 5700 P.S.I. : 8240 LBS.
PULL CAPACITY AT 7400 P.S.I. : 10700 LBS.
2 SERVICE KIT A2580KIT AVAILABLE.
3 ASSEMBLE AND TEST PER HUCK SPEC 42-498
4 ASSEMBLY TOOL KIT 123110-1 IS AVAILABLE CONSISTING OF:
GLYD RING INSERTION TOOL 121694-2580, (1)
PISTON ASSEMBLY TOOL 123111-1, (1)
SPACER 123112-1, (1)
Ⓑ △5 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK: 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN
500824 O-RING
501118 BACK-UP RING
506030 SCREW
123144 PINTAIL DEFLECTOR ASSY
123146 BARBED RETAINER
505991 WIPER
122764 LOCKING DISC
123140 REAR GLAND
506181 POLYSEAL
123141 SPACER
506182 RETAINING RING
123145 DUMP VALVE
123639 CYLINDER/HANDLE & FITTINGS ASSEMBLY
506160 POLYSEAL
123138 FRONT WIPER HOUSING
505894 WIPER SEAL
108279 PINTAIL TUBE
110670 STOP
117824 RETAINING NUT
123135 PISTON
501118 BACK-UP RING
500824 O-RING
123137 FRONT GLAND
506180 GLYD RING
110439 FEMALE CONNECTOR
503431 REDUCING BUSHING (2)
110438 MALE CONNECTOR
118944-1 HOSE ASSEMBLY (2)
120770 HOSE SLEEVING
119440-1 AIR TRIGGER AND HOSE ASSEMBLY
HUCK INTERNATIONAL, INC. (SD)
HUCK GRAND STREET P.O. BOX 2270
KINGSTON, NEW YORK 12401
HYDRAULIC INSTALLATION TOOL
BASIC ASSEMBLY
DET T.L.
CK
DATE: 08/02/93
SCALE FULL
FOC
F.AC
C
A2580


REV
DESCRIPTION
DATE
C NEW STICKERS ADDED, 590240-1 WAS 590240
05/30/96
590247 HUCK STICKER
620084 "MADE IN USA" STICKER Ⓒ
590347 HUCK ADDRESS STICKER Ⓒ
590189-2 PULL & RETURN PRESSURE STICKER
590240-1 PINTAIL DEFLECTOR WARNING STICKER Ⓒ
590350 CE SYMBOLS STICKER Ⓒ
590351 MAX PRESSURE & FLOW STICKER △ Ⓒ
NOTES:
1 STROKE .937 INCHES NOMINAL
PULL CAPACITY AT 5700 P.S.I. 8240 LBS.
PULL CAPACITY AT 7400 P.S.I. 10700 LBS.
2 SERVICE KIT 2580KIT AVAILABLE
3 ASSEMBLE AND TEST PER HUCK SPEC 42-498.
4 ASSEMBLY TOOL KIT 123110-1 IS AVAILABLE CONSISTING OF
GLYD RING INSERTION TOOL 121694-2580. (1)
PISTON ASSEMBLY TOOL 123111-1. (1)
SPACER 123112-1. (1).
5 MATCHING 12 FOOT HOSE KIT 122854 AVAILABLE.
6 SHIP WITH CONVERSION KIT 123020 CONSISTING OF:
FEMALE CONNECTOR 110439. (1)
MALE CONNECTOR 110438. (1)
REDUCING BUSHING 503431. (2)
MALE CONNECTOR (ELECTRICAL) 110686. (1)
CABLE TIE 505839. (1)
Ⓒ △ PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK. 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.
506160 POLYSEAL
123138 FRONT WIPER HOUSING
505894 WIPER SEAL
500824 O-RING
501118 BACK-UP RING
506030 SCREW
123144 PINTAIL DEFLECTOR ASSY
123146 BARBED RETAINER
505991 WIPER
122764 LOCKING DISC
123140 REAR GLAND
506181 POLYSEAL
123141 SPACER
506182 RETAINING RING
123145 DUMP VALVE
123134 CYLINDER/HANDLE
108279 PINTAIL TUBE
110670 STOP
117824 RETAINING NUT
123135 PISTON
120361 TRIGGER SWITCH ASSY
501731 SET SCREW
501118 BACK-UP RING
500824 O-RING
123137 FRONT GLAND
506180 GLYD RING
505344 STRAIN RELIEF
123337 CONTROL CORD
505839 CABLE TIE
506192 MALE CONNECTOR
118944-2 HOSE ASSEMBLY (2)
122840 MALE CONNECTOR
122839 FEMALE CONNECTOR
HUCK INTERNATIONAL, INC. U.S.D.
95 GRAND STREET, P.O. BOX 2270
KINGSTON, NEW YORK 12401
HYDRAULIC INSTALLATION TOOL
BASIC ASSEMBLY
DET T L
CK
DATE: 12/09/92
SCALE FULL
FOC
F.AC
C
2580
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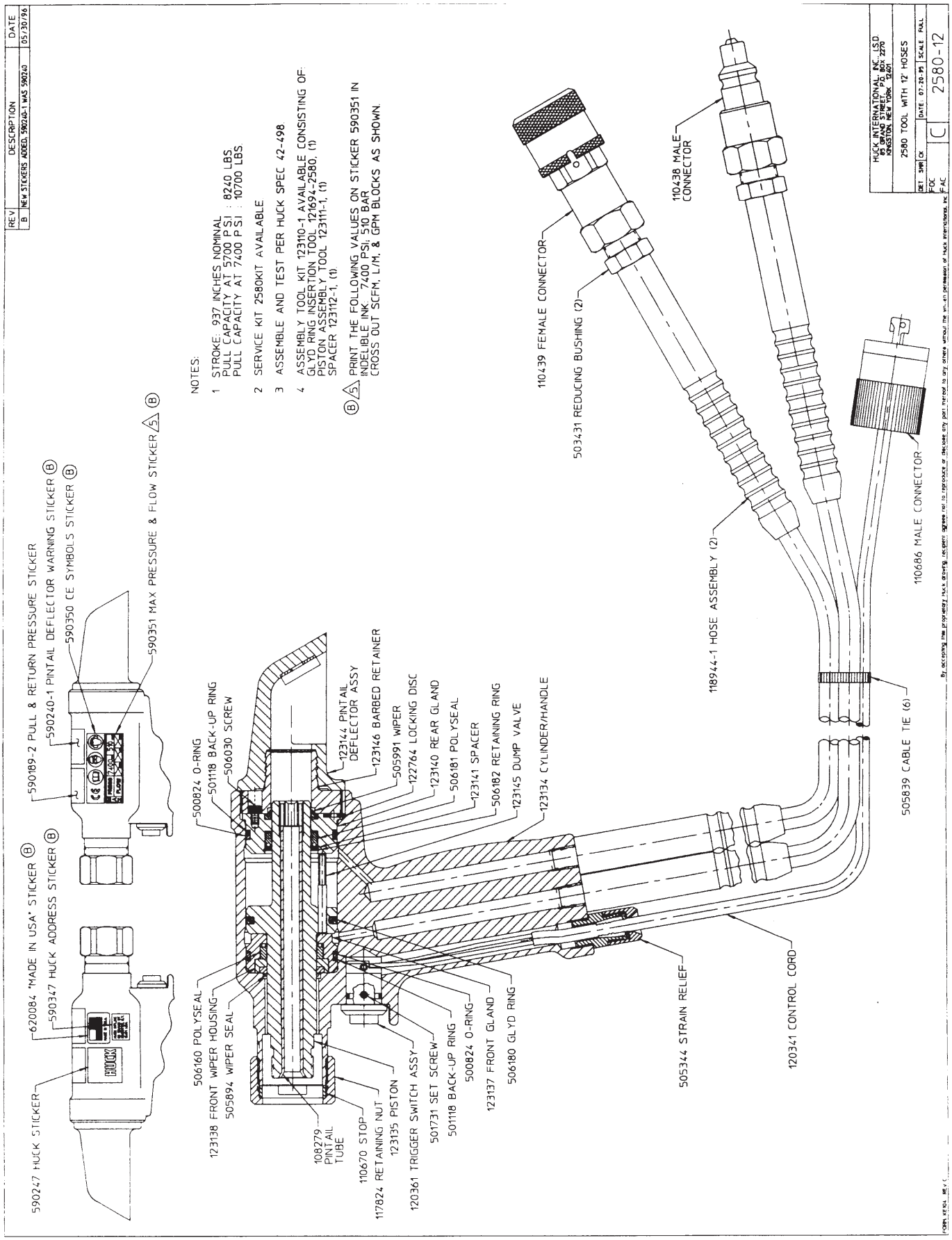
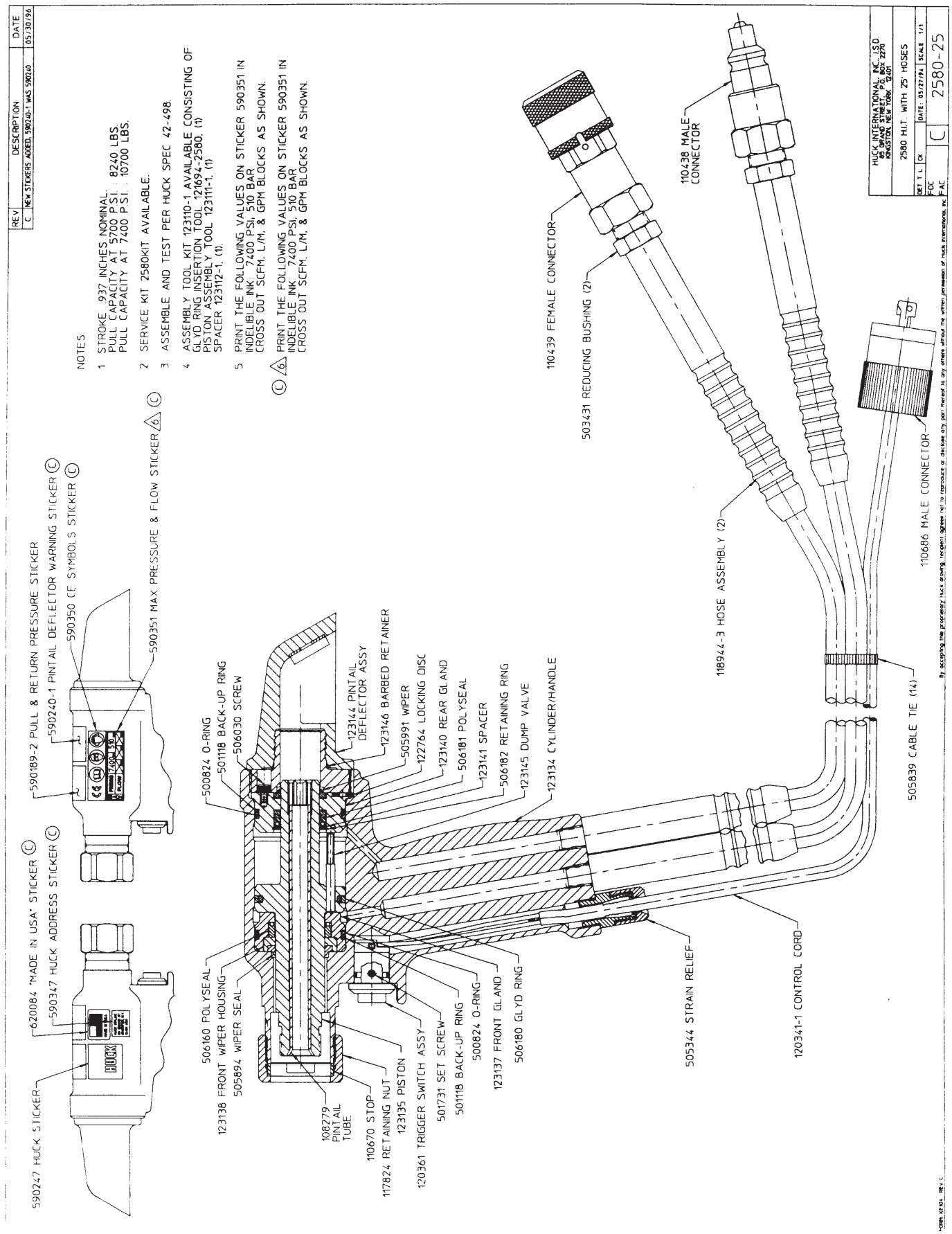
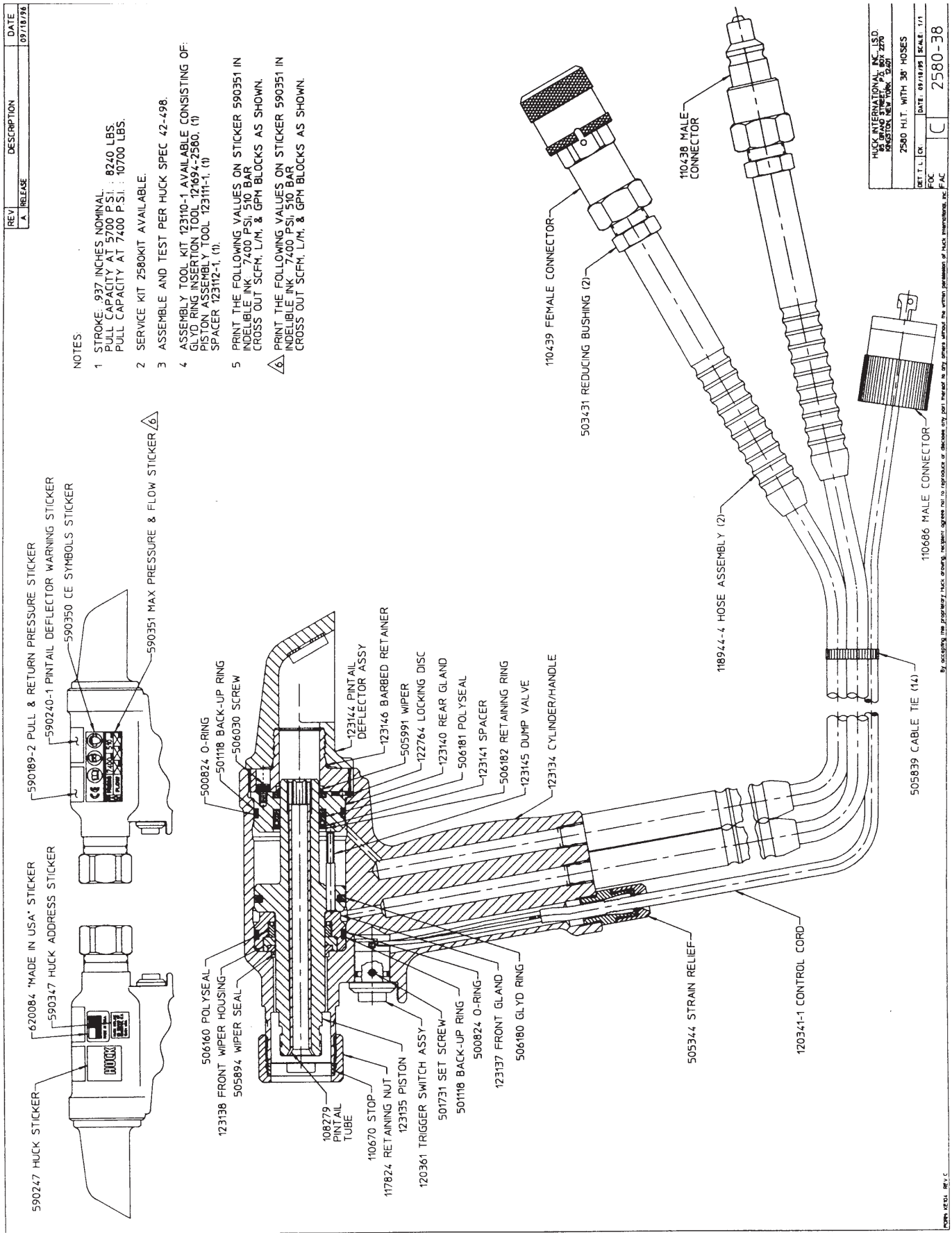

REV
DESCRIPTION
DATE
B NEW STICKERS ADDED, 590240-1 WAS 590240 05/30/96
NOTES:
1 STROKE: .937 INCHES NOMINAL
PULL CAPACITY AT 5700 P.S.I. : 8240 LBS.
PULL CAPACITY AT 7400 P.S.I. : 10700 LBS.
2 SERVICE KIT 2580KIT AVAILABLE
3 ASSEMBLE AND TEST PER HUCK SPEC 42-498
4 ASSEMBLY TOOL KIT 123110-1 AVAILABLE CONSISTING OF:
GLYD RING INSERTION TOOL 121694-2580, (1)
PISTON ASSEMBLY TOOL 123111-1, (1)
SPACER 123112-1, (1)
B 5 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK: 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN
590247 HUCK STICKER
620084 "MADE IN USA" STICKER B
590347 HUCK ADDRESS STICKER B
590189-2 PULL & RETURN PRESSURE STICKER
590240-1 PINTAIL DEFLECTOR WARNING STICKER B
590350 CE SYMBOLS STICKER B
590351 MAX PRESSURE & FLOW STICKER 5 B
506160 POLYSEAL
123138 FRONT WIPER HOUSING
505894 WIPER SEAL
108279 PINTAIL TUBE
110670 STOP
117824 RETAINING NUT
123135 PISTON
120361 TRIGGER SWITCH ASSY
501731 SET SCREW
501118 BACK-UP RING
500824 O-RING
123137 FRONT GLAND
506180 GLYD RING
500824 O-RING
501118 BACK-UP RING
506030 SCREW
123144 PINTAIL DEFLECTOR ASSY
123146 BARBED RETAINER
505991 WIPER
122764 LOCKING DISC
123140 REAR GLAND
506181 POLYSEAL
123141 SPACER
506182 RETAINING RING
123145 DUMP VALVE
123134 CYLINDER/HANDLE
505344 STRAIN RELIEF
120341 CONTROL CORD
505839 CABLE TIE (6)
110686 MALE CONNECTOR
118944-1 HOSE ASSEMBLY (2)
503431 REDUCING BUSHING (2)
110439 FEMALE CONNECTOR
110438 MALE CONNECTOR
HUCK INTERNATIONAL, INC. USD
69 GRAND STREET, P.O. BOX 2270
KINGSTON, NEW YORK 12401
2580 TOOL WITH 12' HOSES
DET. SMR CK
DATE 07-28-95
SCALE FULL
FOC
F.AC
C
2580-12


REV
DESCRIPTION
DATE
C NEW STICKERS ADDED, 590240-1 WAS 590210
05/30/96
NOTES
1 STROKE .937 INCHES NOMINAL
PULL CAPACITY AT 5700 PSI : 8240 LBS.
PULL CAPACITY AT 7400 PSI : 10700 LBS.
2 SERVICE KIT 2580KIT AVAILABLE.
3 ASSEMBLE AND TEST PER HUCK SPEC 42-498.
4 ASSEMBLY TOOL KIT 123110-1 AVAILABLE CONSISTING OF GLYD RING INSERTION TOOL 121694-2580. (1) PISTON ASSEMBLY TOOL 123111-1. (1) SPACER 123112-1. (1).
5 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK - 7400 PSI, 510 BAR CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.
C 6 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN INDELIBLE INK - 7400 PSI, 510 BAR CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.
590247 HUCK STICKER
620084 "MADE IN USA" STICKER C
590347 HUCK ADDRESS STICKER C
590189-2 PULL & RETURN PRESSURE STICKER
590240-1 PINTAIL DEFLECTOR WARNING STICKER C
590350 CE SYMBOLS STICKER C
590351 MAX PRESSURE & FLOW STICKER 6 C
506160 POLYSEAL
123138 FRONT WIPER HOUSING
505894 WIPER SEAL
108279 PINTAIL TUBE
110670 STOP
117824 RETAINING NUT
123135 PISTON
120361 TRIGGER SWITCH ASSY
501731 SET SCREW
501118 BACK-UP RING
500824 O-RING
123137 FRONT GLAND
506180 GLYD RING
500824 O-RING
501118 BACK-UP RING
506030 SCREW
123144 PINTAIL DEFLECTOR ASSY
123146 BARBED RETAINER
505991 WIPER
122764 LOCKING DISC
123140 REAR GLAND
506181 POLYSEAL
123141 SPACER
506182 RETAINING RING
123145 DUMP VALVE
123134 CYLINDER/HANDLE
505344 STRAIN RELIEF
120341-1 CONTROL CORD
505839 CABLE TIE (14)
110686 MALE CONNECTOR
118944-3 HOSE ASSEMBLY (2)
503431 REDUCING BUSHING (2)
110439 FEMALE CONNECTOR
110438 MALE CONNECTOR
HUCK INTERNATIONAL, INC., P.O. BOX 2270
2580 H.I.T. WITH 25' HOSES
DET T L CK
DATE: 05/27/94
SCALE 1/1
FDC
FAC
C
2580-25


REV
DESCRIPTION
DATE
A RELEASE 09/18/96
NOTES:
1 STROKE: .937 INCHES NOMINAL.
PULL CAPACITY AT 5700 P.S.I. : 8240 LBS.
PULL CAPACITY AT 7400 P.S.I. : 10700 LBS.
2 SERVICE KIT 2580KIT AVAILABLE.
3 ASSEMBLE AND TEST PER HUCK SPEC 42-498.
4 ASSEMBLY TOOL KIT 123110-1 AVAILABLE CONSISTING OF:
GLYD RING INSERTION TOOL 121694-2580. (1)
PISTON ASSEMBLY TOOL 123111-1. (1)
SPACER 123112-1. (1).
5 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN
INDELIBLE INK: 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.
6 PRINT THE FOLLOWING VALUES ON STICKER 590351 IN
INDELIBLE INK: 7400 PSI, 510 BAR
CROSS OUT SCFM, L/M, & GPM BLOCKS AS SHOWN.
590247 HUCK STICKER
620084 "MADE IN USA" STICKER
590347 HUCK ADDRESS STICKER
590189-2 PULL & RETURN PRESSURE STICKER
590240-1 PINTAIL DEFLECTOR WARNING STICKER
590350 CE SYMBOLS STICKER
590351 MAX PRESSURE & FLOW STICKER 6
506160 POLYSEAL
123138 FRONT WIPER HOUSING
505894 WIPER SEAL
108279 PINTAIL TUBE
110670 STOP
117824 RETAINING NUT
123135 PISTON
120361 TRIGGER SWITCH ASSY
501731 SET SCREW
501118 BACK-UP RING
500824 O-RING
123137 FRONT GLAND
506180 GLYD RING
500824 O-RING
501118 BACK-UP RING
506030 SCREW
123144 PINTAIL DEFLECTOR ASSY
123146 BARBED RETAINER
505991 WIPER
122764 LOCKING DISC
123140 REAR GLAND
506181 POLYSEAL
123141 SPACER
506182 RETAINING RING
123145 DUMP VALVE
123134 CYLINDER/HANDLE
505344 STRAIN RELIEF
120341-1 CONTROL CORD
505839 CABLE TIE (14)
110686 MALE CONNECTOR
118944-4 HOSE ASSEMBLY (2)
503431 REDUCING BUSHING (2)
110439 FEMALE CONNECTOR
110438 MALE CONNECTOR
HUCK INTERNATIONAL INC. LSD.
KINGSTON, NEW YORK 12401
2580 M.I.T. WITH 36" HOSES
DET. T. L. CK. DATE: 09/18/96 SCALE: 1/1
FOC C 2580-38
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FORM 14724 REV C

LIMITED WARRANTIES

Tooling Warranty: Huck warrants that tooling and other items (excluding fasteners, and hereinafter referred as "other items") manufactured by Huck shall be free from defects in workmanship and materials for a period of ninety (90) days from the date of original purchase.

Warranty on "non standard or custom manufactured products": With regard to non-standard products or custom manufactured products to customer's specifications, Huck warrants for a period of ninety (90) days from the date of purchase that such products shall meet Buyer's specifications, be free of defects in workmanship and materials. Such warranty shall not be effective with respect to non-standard or custom products manufactured using buyer-supplied molds, material, tooling and fixtures that are not in good condition or repair and suitable for their intended purpose.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. HUCK MAKES NO OTHER WARRANTIES AND EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES AS TO MERCHANTABILITY OR AS TO THE FITNESS OF THE TOOLING, OTHER ITEMS, NONSTANDARD OR CUSTOM MANUFACTURED PRODUCTS FOR ANY PARTICULAR PURPOSE AND HUCK SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH TOOLING, OTHER ITEMS, NONSTANDARD OR CUSTOM MANUFACTURED PRODUCTS OR BREACH OF WARRANTY OR FOR ANY CLAIM FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Huck's sole liability and Buyer's exclusive remedy for any breach of warranty shall be limited, at Huck's option, to replacement or repair, at FOB Huck's plant, of Huck manufactured tooling, other items, nonstandard or custom products found to be defective in specifications, workmanship and materials not otherwise the direct or indirect cause of Buyer supplied molds, material, tooling or fixtures. Buyer shall give Huck written notice of claims for defects within the ninety (90) day warranty period for tooling, other items, nonstandard or custom products described above and Huck shall inspect products for which such claim is made.

Tooling, Part(s) and Other Items not manufactured by Huck.

HUCK MAKES NO WARRANTY WITH RESPECT TO THE TOOLING, PART(S) OR OTHER ITEMS MANUFACTURED BY THIRD PARTIES. HUCK EXPRESSLY DISCLAIMS ANY WARRANTY EXPRESSED OR IMPLIED, AS TO THE CONDITION, DESIGN, OPERATION, MERCHANTABILITY OR FITNESS FOR USE OF ANY TOOL, PART(S), OR OTHER ITEMS THEREOF NOT MANUFACTURED BY HUCK. HUCK SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECTLY OR INDIRECTLY, ARISING FROM THE USE OF SUCH TOOLING, PART(S) OR OTHER ITEMS OR BREACH OF WARRANTY OR FOR ANY CLAIM FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

The only warranties made with respect to such tool, part(s) or other items thereof are those made by the manufacturer thereof and Huck agrees to cooperate with Buyer in enforcing such warranties when such action is necessary.

Huck shall not be liable for any loss or damage resulting from delays or nonfulfillment of orders owing to strikes, fires, accidents, transportation companies or for any reason or reasons beyond the control of the Huck or its suppliers.

Huck Installation Equipment

Huck International, Inc. reserves the right to make changes in specifications and design and to discontinue models without notice.

Huck Installation Equipment should be serviced by trained service technicians only.

Always give the Serial Number of the equipment when corresponding or ordering service parts.

Complete repair facilities are maintained by Huck International, Inc. Please contact one of the offices listed below.

Eastern
One Corporate Drive Kingston, New York 12401-0250
Telephone (845) 331-7300 FAX (845) 334-7333

Canada
6150 Kennedy Road Unit 10, Mississauga, Ontario, L5T2J4, Canada.
Telephone (905) 564-4825 FAX (905) 564-1963

Outside USA and Canada
Contact your nearest Huck International Office, see back cover.

In addition to the above repair facilities, there are Authorized Tool Service Centers (ATSC's) located throughout the United States. These service centers offer repair services, spare parts, Service Parts Kits, Service Tools Kits and Nose Assemblies. Please contact your Huck Representative or the nearest Huck office listed on the back cover for the ATSC in your area.

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Alcoa Fastening Systems (AFS) maintains company offices throughout the United States and Canada, with subsidiary offices in many other countries. Authorized AFS distributors are also located in many of the world's industrial and Aerspace centers, where they provide a ready source of AFS fasteners, installation tools, tool parts, and application assistance.

Alcoa Fastening Systems world-wide locations:

Americas

Alcoa Fastening Systems
Aerospace Products
Tucson Operations
3724 East Columbia
Tucson, AZ 85714
800-234-4825
520-747-9898
FAX: 520-748-2142

Alcoa Fastening Systems
Aerospace Products
Carson Operations
PO Box 5268
900 Watson Center Rd.
Carson, CA 90749
800-421-1459
310-830-8200
FAX: 310-830-1436

Alcoa Fastening Systems
Commercial Products
Waco Operations
PO Box 8117
8001 Imperial Drive
Waco, TX 76714-8117
800-388-4825
254-776-2000
FAX: 254-751-5259

Alcoa Fastening Systems
Commercial Products
Kingston Operations
1 Corporate Drive
Kingston, NY 12401
800-431-3091
845-331-7300
FAX: 845-334-7333
www.hucktools.com

Alcoa Fastening Systems
Commercial Products
Canada Operations
6150 Kennedy Road, Unit 10
Mississagua, Ontario L5T2J4
Canada
905-564-4825
FAX: 905-564-1963

Alcoa Fastening Systems
Commercial Products
Latin America Operations
Avenida Parque Lira. 79-402
Tacubaya Mexico, D.F.
C.P. 11850
FAX: 525-515-1776
TELEX: 1173530 LUKSME

Far East

Alcoa Fastening Systems
Commercial Products
Australia Operations
14 Viewtech Place
Rowville, Victoria
Australia 3178
03-764-5500
Toll Free: 008-335-030
FAX: 03-764-5510

Europe

Alcoa Fastening Systems
Commercial Products
United Kingdom Operations
Unit C, Stafford Park 7
Telford, Shropshire
England TF3 3BQ
01952-290011
FAX: 0952-290459

Alcoa Fastening Systems
Aerospace Products
France Operations
Clos D'Asseville
BP4
95450 Us Par Vigny
France
33-1-30-27-9500
FAX: 33-1-34-66-0600

CERTIFIED FACILITY
INSTALLATION SYSTEMS DIVISION
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