

**MODEL 9-7500**

To be used for reference only

**ILLUSTRATED PARTS BREAKDOWN**

Property of Arc Machines, Inc.

**MODEL 9-7500  
IPB Notice and Revision History**

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**WARNING**



The nature of the GTAW process creates some POTENTIAL HAZARDS. In accordance with international safety regulations the EXCLAMATION SYMBOL indicates that this equipment is considered HAZARDOUS. The LIGHTNING FLASH SYMBOL indicates that there are potential electrical hazards. The display of these symbols makes it the OPERATOR'S RESPONSIBILITY TO ENSURE THAT THEY HAVE BEEN MADE AWARE OF and shall observe the hazardous conditions.

|  |   |
|--|---|
|  | <p><b>WARNING:</b> AMI factory training is essential for all Maintenance Technicians who operate AMI equipment. Do not operate or service this equipment without proper AMI approved training.</p>  |
|  | <p><b>WARNING:</b> Keep hands and fingers clear from moving parts such as fans, gears, rotors, Wire Feed, Weld Head Travel, i.e. Oscillation (OSC) and Arc Voltage Control (AVC) mechanisms</p> <p>Weld Head AVC and Oscillator Slide Assemblies develop high forces and it is possible, by their nature of operation, to harm any object or body part that may get into these areas. <b>USE EXTREME CAUTION!</b></p> |
|  | <p><b>Electrical Shock Hazard:</b> Always disconnect weld heads when servicing internal components or opening housing covers for access.</p>  |

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| REV | ECO # | CHANGE DESCRIPTION  | DATE        | BY | APR |
|-----|-------|---|-------------|----|-----|
| A   | 4678  | On 090123 Change Item 6 & 23  | 7 Mar 2008  | SO | BF  |
| B   | 4916  | On IPB 090123, changed Item 3 to SCS08-32-0.75NP, was SCS08-32-0.75BO | 21 May 2008 | SO | BF  |
| C   | 4779  | Added rev D of 750015   | 26 May 2008 | SO | BF  |
| D   | 5579  | Added rev F of 750015 and Wiring Diagram                              | 18 Jan 2010 | CB | DC  |
| E   | 5753  | Update IPB 090123, remove cable parts from 090123 and updated TOC     | 10/6/10     | GB | DC  |

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DATE EFFECTIVE: 6 Nov 1985

PRODUCT MODEL: 9-7500  
MANUAL NUMBER: 730036

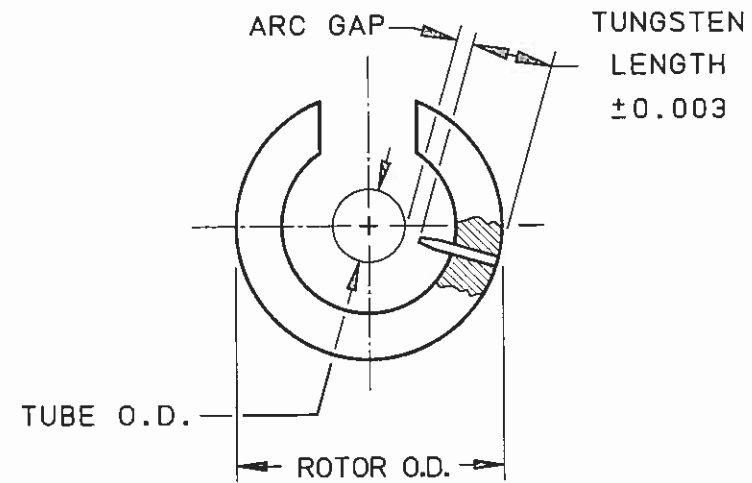
| <b>IPB NUMBER</b> | <b>DESCRIPTION</b>                          |
|-------------------|---|
| 750015            | MODEL 9 ELECTRODE DIMENSIONS                |
| 090123            | MAIN ASSEMBLY                               |
| 090106            | MODEL 9E CONFIGURATION                      |
| 750031            | MODEL 9 CONVERSION TO MODEL 9E INSTRUCTIONS |
| 090800            | CABLE ASSEMBLY M9                           |
| 175144-05         | MODEL 9 WELD HEAD WIRING DIAGRAM            |

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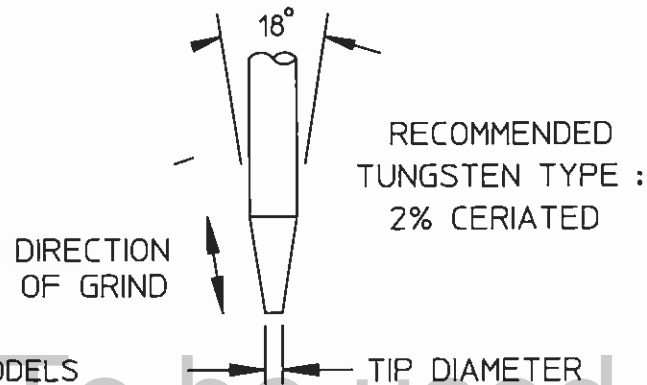
## ELECTRODE DIMENSIONS

| ROTOR DIAMETER  |            |
|---|------------|
| MODEL NO.   | ROTOR O.D. |
| 9-250   | 0.802      |
| 9-500/4-500   | 1.388      |
| 9-675   | 1.715      |
| 9M-750  | 1.312      |
| 9-750   | 2.000      |
|   |            |
| 9-1500  | 3.187      |
| 9AF-1500  | 2.252      |
| 9E-1500   | 2.687      |
| 8-2000  | 3.450      |
| 9-2500  | 4.380      |
| 9AF-2500  | 3.156      |
| 9E-2500   | 4.280      |
|   |            |
| * 9-3500  | 5.380      |
| 9E-3500   | 5.310      |
| 8-4000  | 5.310      |
| * 9-4500  | 6.875      |
| 9ER-4500  | 5.776      |
| 8-6625  | 8.094      |
| * 9-7500  | 10.440     |
| 9E-7500   | 9.375      |
| * FOR HEADS USING OPTIONAL TUNGSTEN EXTENDER, SEE PAGE 2. |            |

$$\frac{\text{ROTOR O.D.} - \text{TUBE O.D.}}{2} - \text{ARC GAP} = \text{TUNGSTEN LENGTH}$$



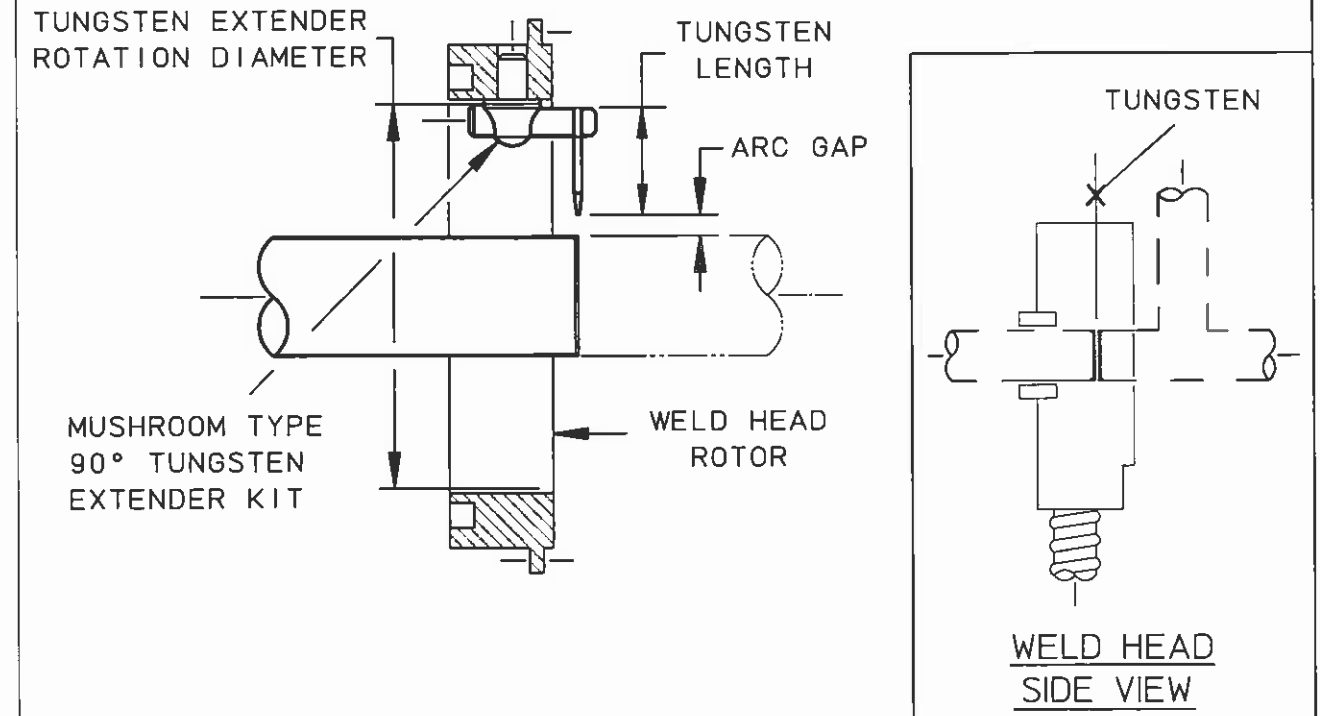
| TUBE/PIPE WALL THICKNESS | RECOMMENDED ARC GAP | RECOMMENDED TIP DIA. |
|--------------------------|---------------------|----------------------|
| 0.020/0.035              | 0.030               | 0.020                |
| 0.049/0.085              | 0.050               | 0.030                |
| 0.091/0.154              | 0.070               | 0.040                |



- NOTES:
1. RECOMMENDED ARC GAP FOR MODELS 4-500, 9-250 & 9-500 IS 0.045 MAXIMUM.
  2. IN INSTANCES WHERE OUT-OF-ROUNDNESS ON THIN-WALLED TUBING OCCURS (NORMALLY 2.500 O.D. OR LARGER), A 0.070 ARC GAP IS RECOMMENDED.
  3. DIMENSIONS ARE IN INCHES.

## TUNGSTEN LENGTH CALCULATION FOR TUNGSTEN EXTENDERS

$$\frac{\text{EXT. ROTATION DIA} - \text{TUBE O.D.}}{2} - \text{ARC GAP} = \text{TUNGSTEN LENGTH} \pm 0.003$$

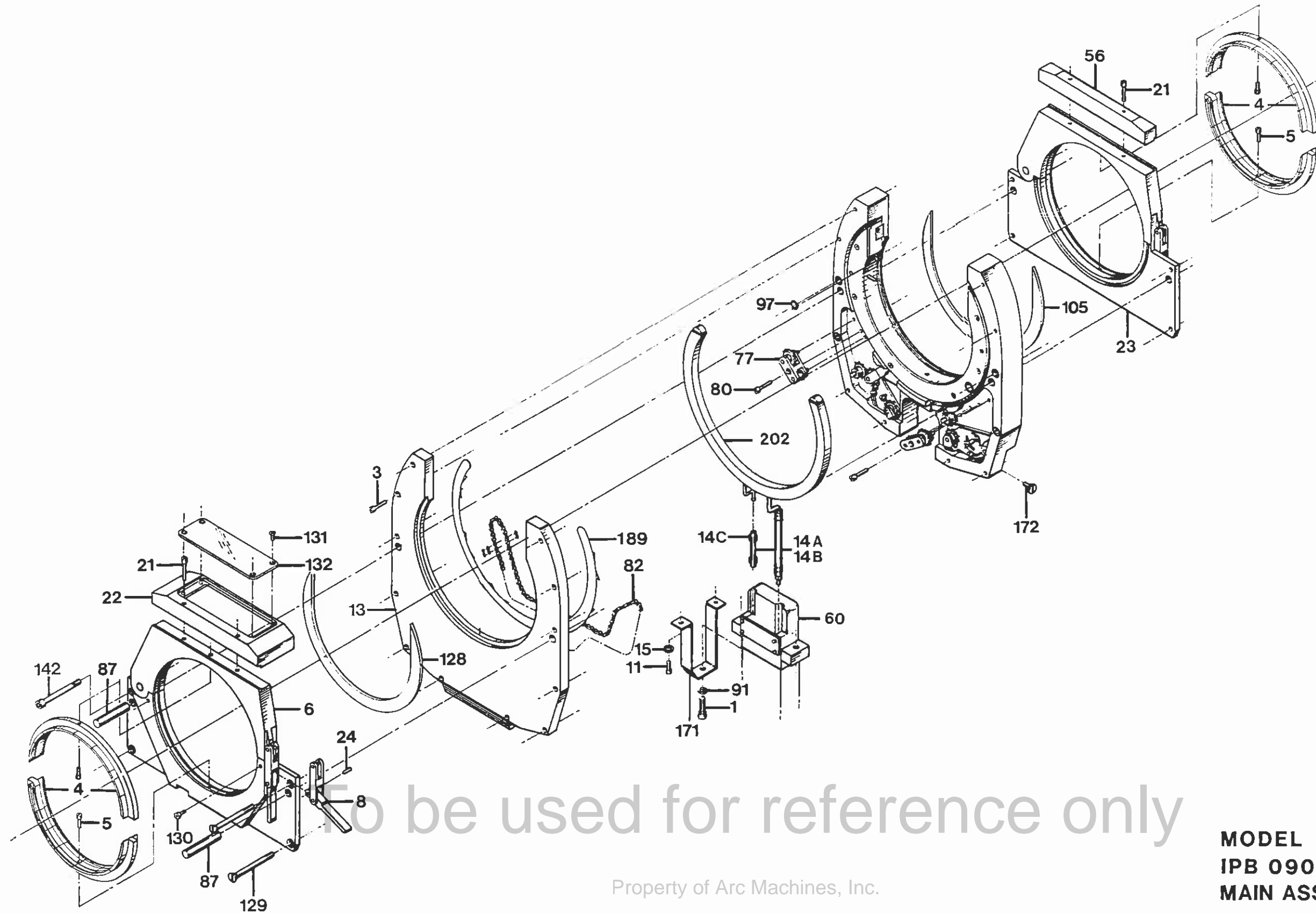


| WELD HEAD MODEL NO. | KIT WITH 1/16 TUNGSTEN HOLDER PART NO. | KIT WITH 3/32 TUNGSTEN HOLDER PART NO. | TUNGSTEN EXTENDER ROTATION DIA. |
|---------------------|--|--|---------------------------------|
| 9-1500              | 13090796-01                            | 13090796-02                            | 2.031                           |
| 9-2500              | 13090796-05                            | 13090796-06                            | 3.156                           |
| 9-3500              | 13090796-05                            | 13090796-06                            | 4.031                           |
| 9-4500              | 13090796-03                            | 13090796-04                            | 4.920                           |
| 9-7500              | 13090796-05                            | 13090796-06                            | 8.280                           |

NOTES:

1. PART NUMBERS SHOWN ARE FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE.
2. CONTACT AMI SALES OR SERVICES FOR SPECIFIC PART NUMBER.

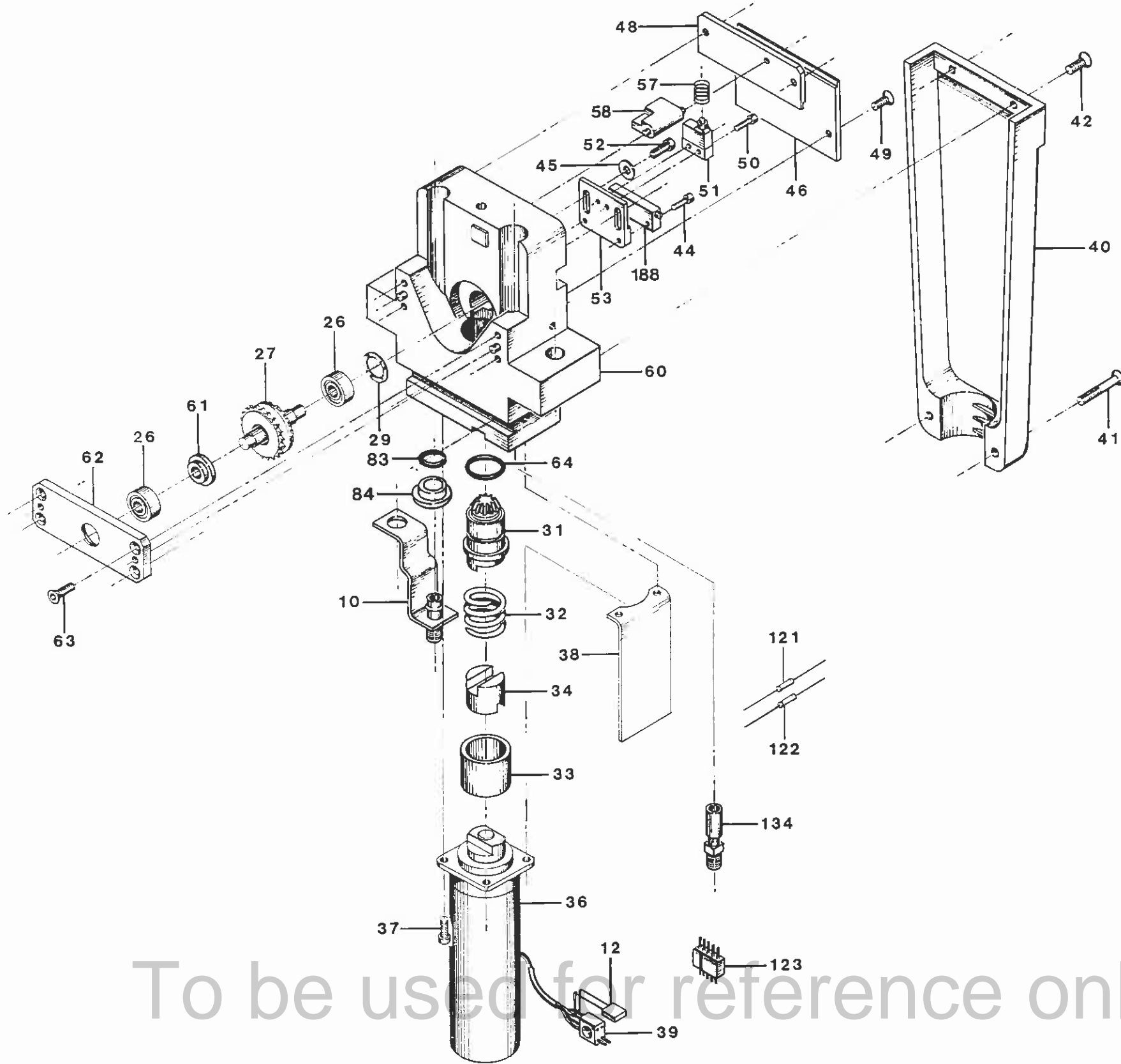
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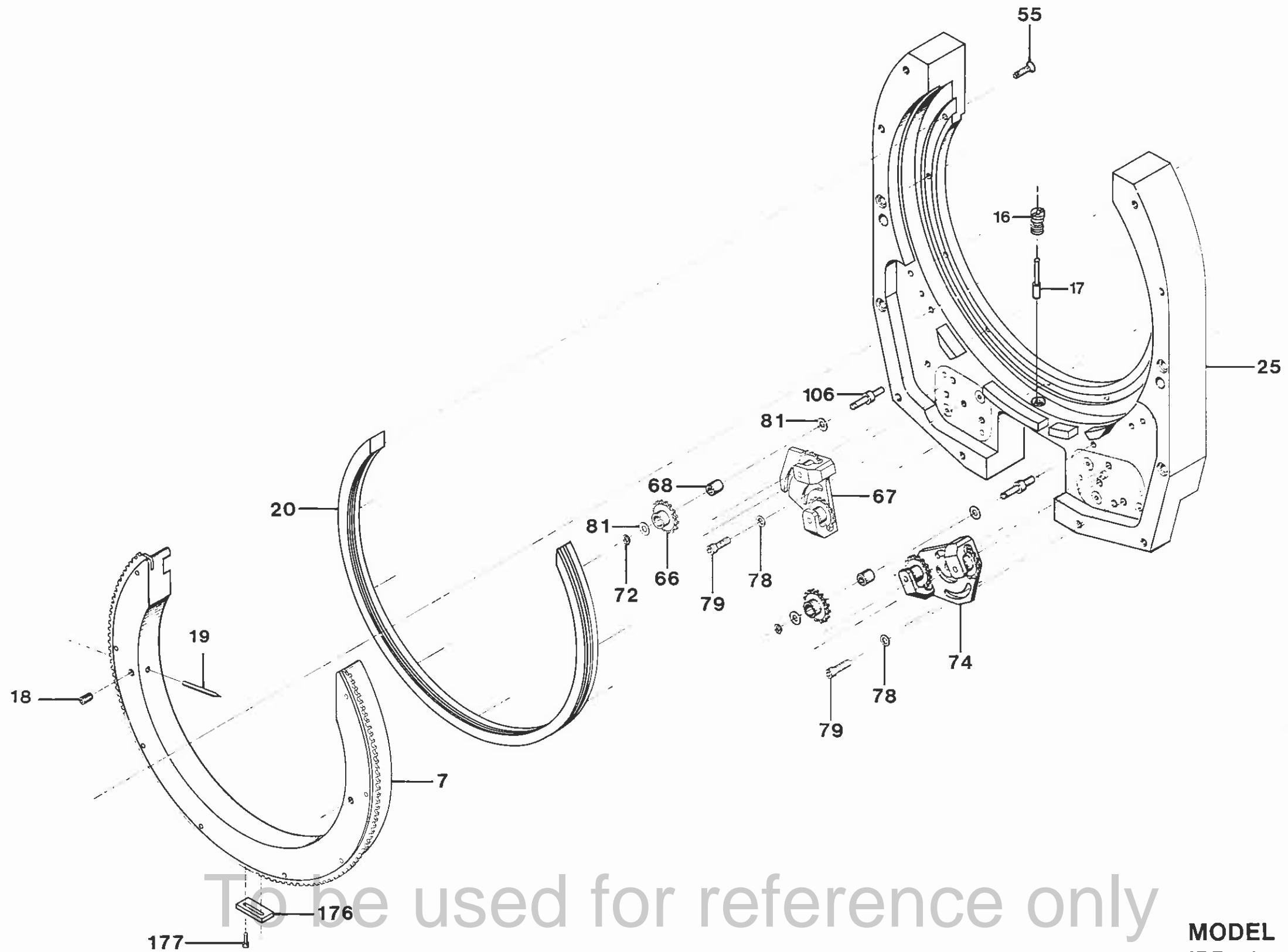
MODEL 9-7500  
IPB 090123  
MAIN ASSEMBLY



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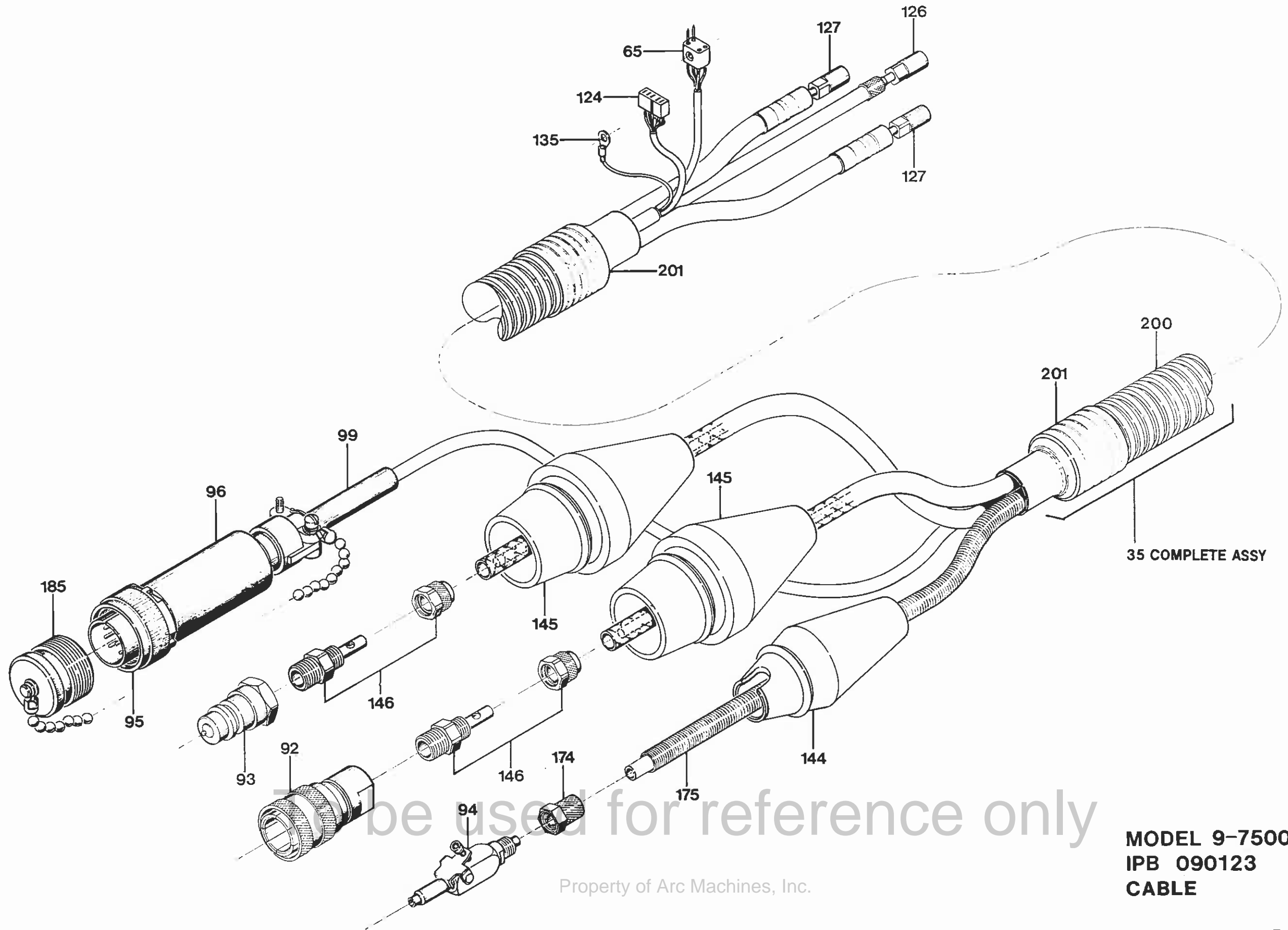
MODEL 9-7500  
IPB 090123  
DRIVE ASSEMBLY



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MODEL 9-7500  
IPB 090123  
HOUSING ASSEMBLY



35 COMPLETE ASSY

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MODEL 9-7500  
IPB 090123  
CABLE



IPB NUMBER: 090123

TO ORDER  
USE PART NUMBER  
DO NOT USE IPB  
ITEM NUMBER

ARC MACHINES, INC.

PRODUCT MODEL: 9-7500  
DESCRIPTION: MAIN ASSEMBLY  
MANUAL NUMBER: 730036  
NOTES:

| IPB ITEM NUMBER | QTY  | U/M | PART NUMBER     | DESCRIPTION                    |                               |
|-----------------|------|-----|-----------------|--------------------------------|-------------------------------|
| 1               | 2    | EA  | SCS31-18-1.00NP | SCREW CAP SKT 5/16-18 1.00 L   |                               |
| 2               | 0    | -   | -               | -----                          |                               |
| 3               | 8    | EA  | SCS08-32-0.75BO | SCREW CAP SKT 8-32 1/2 BLK OXD |                               |
| 4               | 0    | -   | -               | -----                          |                               |
| 5               | 4    | EA  | SCS08-32-0.37NP | SCREW CAP SKT 8-32 3/8 L       |                               |
| 6               | 1    | EA  | 130905277-01    | CLAMP HSG COVER SIDE M9-7500   | (ITEMS 8 AND 24 INCLUDED)     |
| 7               | 1    | EA  | 13090789-01     | ROTOR 9-7500                   | (ITEMS 18, 176, & 177 INC)    |
| 8               | 2    | EA  | 13090578-01     | LATCH ASSY M9-7500 M9E-7500    |                               |
| 10              | 1    | EA  | 13090723-01     | GROUND STRAP                   |                               |
| 11              | 2    | EA  | SCS25-20-0.62SP | SCREW CAP SKT 1/4-20 5/8 L SP  |                               |
| 12              | 1    | EA  | CK06BX104K      | CAP 0.1MF 100V 10%             |                               |
| 13              | 1    | EA  | 42090148-01     | COVER                          |                               |
| 14A             | 0.5  | FT  | 029173          | TBG SILICONE 1/8ID 1/4OD RED   |                               |
| 14B             | 0.08 | FT  | FP-301-0.25     | TBG SHRINK                     |                               |
| 14C             | 18   | IN  | MS20995C25      | LOCKWIRE 1LB SPOOL .025D 304SS |                               |
| 15              | 2    | EA  | W25NP-FL        | WASHER FL 1/4                  |                               |
| 16              | 1    | EA  | 42091109-02     | PIN ACT 9-7500                 |                               |
| 17              | 1    | EA  | 42091109-01     | BUSHING ACT 9-7500             |                               |
| 18              | 2    | EA  | SSS06-32-18NPCU | SCREW SET SKT 6-32 3/16 L CUPT |                               |
| 19              | 0    | -   | -               | -----                          | TUNGSTEN                      |
| 20              | 1    | EA  | 42090755-01     | GUIDE RING                     |                               |
| 21              | 4    | EA  | SCS10-32-1.25NP | SCREW CAP SKT 10-32 1-1/4 L    |                               |
| 22              | 1    | EA  | 42090557-01     | CLOSURE GAS 9-7500             | (ITEMS 131 AND 132 INCLUDED)  |
| 23              | 1    | EA  | 130905276-01    | CLAMP HSG HSG SIDE M9-7500     | (ITEMS 8 AND 24 INCLUDED)     |
| 24              | 2    | EA  | PD18-0.37SS     | PIN DOWEL 3/16D 3/8L SST       |                               |
| 25              | 1    | EA  | 42090147-01     | HOUSING UPPER                  | (ITEMS 16, 17, 60, & 172 INC) |
| 26              | 2    | EA  | SSR-3LLRA3P2 [  | BEARING BALL .18 .50 [5LY-101] |                               |
| 27              | 1    | EA  | 13090613-01     | GEAR BEVEL                     |                               |
| 28              | 0    | -   | -               | -----                          |                               |
| 29              | 1    | EA  | SV-8            | SPRING WAVE WASHER .351D .44   |                               |
| 30              | 0    | -   | -               | -----                          |                               |
| 31              | 1    | EA  | 13090602-07     | GEAR PINION DRIVE              |                               |
| 32              | 1    | EA  | 15156           | SPRING CPRSN .81D .70L .067W   |                               |
| 33              | 1    | EA  | 42090602-04     | SPACER SPRING                  |                               |
| 34              | 1    | EA  | 42090602-03     | COUPLING INSULATING DELRIN     |                               |
| 35              | 1    | EA  | 13090800-01     | CABLE M9 10 FT                 |                               |
| 36              | 1    | EA  | 13090602-04     | MOTOR DRIVE PINION 45 RPM      | (ITEMS 12 AND 39 INCLUDED)    |

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PRICE, PART NUMBER AND  
DESCRIPTION SUBJECT TO  
CHANGE WITHOUT NOTICE

IPB NUMBER: 090123

TO ORDER  
USE PART NUMBER  
DO NOT USE IPB  
ITEM NUMBER

ARC MACHINES, INC.  
PRODUCT MODEL: 9-7500  
DESCRIPTION: MAIN ASSEMBLY  
MANUAL NUMBER: 730036  
NOTES:

| IPB ITEM NUMBER | QTY | U/M | PART NUMBER     | DESCRIPTION                                       |
|-----------------|-----|-----|-----------------|---|
| 37              | 4   | EA  | SCS04-40-0.31NP | SCREW CAP SKT 4-40 5/16 L                         |
| 38              | 1   | EA  | 42091102-04     | INSULATOR SKIRT                                   |
| 39              | 1   | EA  | JF2P2SCD        | CONN 4 PIN PLUG MINIATURE                         |
| 40              | 2   | EA  | 42060104-01     | HANDLE  |
| 41              | 2   | EA  | SFS04-40-1.00NP | SCREW FLH SKT 4-40 1.00 L                         |
| 42              | 4   | EA  | SFS04-40-0.37NP | SCREW FLH SKT 4-40 3/8 L                          |
| 43              | 0   | -   | -               | -----   |
| 44              | 2   | EA  | SCS02-56-0.25NP | SCREW CAP SKT 2-56 1/4 L                          |
| 45              | 2   | EA  | W04-FL          | WASHER FLAT #4                                    |
| 46              | 1   | EA  | 42090619-02     | COVER PLATE BOT LIMIT SW                          |
| 47              | 0   | -   | -               | -----   |
| 48              | 1   | EA  | 42090619-01     | COVER PLATE TOP LIMIT SW                          |
| 49              | 4   | EA  | SFS04-40-0.31NP | SCREW FLH SKT 4-40 5/16 L                         |
| 50              | 2   | EA  | SFS02-56-0.25NP | SCREW FLH SKT 2-56 1/4 L                          |
| 51              | 1   | EA  | MMGGD1D0C       | SWITCH LIMIT PLUNGER                              |
| 52              | 2   | EA  | SCS04-40-0.25NP | SCREW CAP SKT 4-40 1/4 L                          |
| 53              | 1   | EA  | 42090616-05     | PLATE LIMIT SWITCH                                |
| 54              | 0   | -   | -               | -----   |
| 55              | 9   | EA  | SFL08-32-0.62NY | SCREW FLH SLT 8-32 5/8 L NYL                      |
| 56              | 1   | EA  | 42090557-02     | CLOSURE GAS SM 9-7500                             |
| 57              | 1   | EA  | L-14            | SPRING CPRSN .25D .43L .020W                      |
| 58              | 1   | EA  | 42091108-03     | LEVER LIMIT SW ACTR                               |
| 59              | 0   | -   | -               | -----   |
| 60              | 1   | EA  | 42090146-01     | HOUSING DRIVE (SEE ITEM 25)                       |
| 61              | 1   | EA  | 42090617-02     | SPACER BEVEL GEAR                                 |
| 62              | 1   | EA  | 42090548-02     | RETAINER PLATE                                    |
| 63              | 4   | EA  | SFS04-40-0.37NP | SCREW FLH SKT 4-40 3/8 L                          |
| 64              | 1   | EA  | 2-014           | O RING .489 ID .070 W                             |
| 65              | 1   | EA  | JF2S2PCD        | CONN 4 SOCKET RECEPTACLE MINTR                    |
| 66              | 2   | EA  | 42090627-01     | SPROCKET (14EM26S-22)                             |
| 67              | 1   | EA  | 13090634-02     | TENSIONER LH                                      |
| 68              | 2   | EA  | B-36            | BEARING NEEDLE .18 ID .344 OD                     |
| 72              | 2   | EA  | 5100-18-C       | RTNG RING BASIC EXT 3/16 SHAFT (BERYLLIUM COPPER) |
| 73              | 0   | -   | -               | -----   |
| 74              | 1   | EA  | 13090634-01     | TENSIONER RH                                      |
| 77              | 2   | EA  | 13090625-01     | BRACKET H R/H                                     |
| 78              | 7   | EA  | W08NP-FL        | WASHER FLAT #8                                    |

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IPB NUMBER: 090123

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|-----------------|-----|-----|-------------------------|--|
| 79              | 6   | EA  | SCS08-32-0.31NP         | SCREW CAP SKT 8-32 5/16 L              |
| 80              | 2   | EA  | SCS08-32-0.75BO         | SCREW CAP SKT 8-32 1/2 BLK OXD         |
| 81              | 4   | EA  | 5720-17-32              | WASHER .19 ID .44 D .032 T             |
| 82              | 1   | EA  | 47SS-221                | CHAIN 32.597IN (221 SGMT)W/LNK         |
| 83              | 1   | EA  | 2-010-S604-70           | O RING .238 ID .070 W SILICONE         |
| 84              | 1   | EA  | 420901126-02            | GROMMET                                |
| 87              | 2   | EA  | 42090164-06             | PIN .375D 2.59L 9-7500                 |
| 88              | 0   | -   | -                       | -----                                  |
| 89              | 0   | -   | -                       | -----                                  |
| 91              | 2   | EA  | W31SS-FL                | WASHER FL 5/16 SIZE SST                |
| 92              | 1   | EA  | <del>42060800-02</del>  | <del>COUPLING Q/D CONN (SM-251B)</del> |
| 93              | 1   | EA  | <del>SM252B</del>       | <del>COUPLING</del>                    |
| 94              | 1   | EA  | <del>294-PMB-04</del>   | <del>DO NOT SELL USE: 1351109-01</del> |
| 95              | 1   | EA  | <del>MS3106E10 1P</del> | <del>CONN 10 PIN PLUG</del>            |
| 96              | 1   | EA  | <del>G1501N106A3A</del> | <del>CONN BACKSHELL</del>              |
| 97              | 4   | EA  | 2-108-S604-70           | O RING .237 ID .103 W SILICONE         |
| 98              | 0   | -   | -                       | -----                                  |
| 99              | 1   | EA  | <del>MS39056-3</del>    | <del>CONN TELESCOPIC BUSHING</del>     |
| 105             | 1   | EA  | 420907168-04            | HEAT SHIELD HOUSING 9-7500             |
| 106             | 2   | EA  | 42090631-03             | SHAFT                                  |
| 107             | 0   | -   | -                       | -----                                  |
| 121             | 1   | EA  | RN55D3160F              | RES 316 OHM 1/4W                       |
| 122             | 1   | EA  | RN55D7681F              | RES 0.25W 7.68K 1%                     |
| 123             | 1   | EA  | 7051                    | CONN 5 PIN MALE                        |
| 124             | 1   | EA  | <del>7052</del>         | <del>CONN 5 PIN FEMALE</del>           |
| 125             | 0   | -   | -                       | -----                                  |
| 126             | 1   | EA  | <del>2PF1</del>         | <del>FTG 1/4-20 FEMALE</del>           |
| 127             | 2   | EA  | <del>ARC 1001</del>     | <del>FTG WTR/PWR CA CRIMP 1/4-20</del> |
| 128             | 1   | EA  | 420907168-03            | HEAT SHIELD COVER 9-7500               |
| 129             | 2   | EA  | 42090174-21             | SCREW 9-7500 (SFS25-20-2.62NP)         |
| 130             | 4   | EA  | SCS04-40-0.62NP         | SCREW CAP SKT 4-40 5/8 L               |
| 131             | 4   | EA  | SFL06-32-0.37NY         | SCREW FLH SLT 6-32 3/8 L NYL           |
| 132             | 1   | EA  | 42090557-03             | WINDOW                                 |
| 134             | 1   | EA  | 13090803-01             | TUBE FTG GAS                           |
| 135             | 1   | EA  | <del>R61002GCB</del>    | <del>TERM 16 14 AWG #6</del>           |
| 136             | 0   | -   | -                       | -----                                  |
| 138             | 0   | -   | -                       | -----                                  |

BRASS SWIVEL NUT (FEMALE)

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DESCRIPTION: MAIN ASSEMBLY  
MANUAL NUMBER: 730036  
NOTES:

| IPB ITEM<br>NUMBER | QTY          | U/M           | PART NUMBER               | DESCRIPTION                               |
|--------------------|--------------|---------------|---------------------------|---|
| 139                | 0            | -             | -                         | -----                                     |
| 140                | 0            | -             | -                         | -----                                     |
| 142                | 2            | EA            | 42090174-22               | SCREW 9-7500 (SCS25-20-2.50NP)            |
| <del>144</del>     | <del>1</del> | <del>EA</del> | <del>42060805-04</del>    | <del>BOOT MALE GAS</del>                  |
| <del>145</del>     | <del>2</del> | <del>EA</del> | <del>42060804-01</del>    | <del>BOOT MALE POWER/GROUND</del>         |
| <del>146</del>     | <del>2</del> | <del>EA</del> | <del>42060800-07</del>    | <del>FTC COUPLING HOSE/CABLE</del>        |
| 147                | 0            | -             | -                         | -----                                     |
| 148                | 0            | -             | -                         | -----                                     |
| 171                | 1            | EA            | 42090749-01               | CONDUCTOR GND STRAP                       |
| 172                | 1            | EA            | SPL25-20-0.50NY           | SCREW PNH SLT 1/4-20 1/2 L NYL            |
| 173                | 0            | -             | -                         | -----                                     |
| <del>174</del>     | <del>1</del> | <del>EA</del> | <del>261 PG 04</del>      | <del>FTC NUT/SLEEVE SPRING 1/4 TUBE</del> |
| <del>175</del>     | <del>1</del> | <del>EA</del> | <del>AS200718</del>       | <del>SPRING GUARD .34 OD 18.00 LG</del>   |
| 176                | 1            | EA            | 42090548-05               | CAM SWITCH                                |
| 177                | 2            | EA            | SCS04-40-0.31NP           | SCREW CAP SKT 4-40 5/16 L                 |
| 185                | 1            | EA            | 1350110-04                | DUST CAP ASSY W/CHAIN(MALE18D)            |
| 186                | 0            | -             | -                         | -----                                     |
| 188                | 1            | EA            | 3057L-1-202               | POT TRIM 2K OHM 5%                        |
| 189                | 1            | EA            | 420907211-01              | PLATE BACKING M9-7500                     |
| <del>200</del>     | <del>9</del> | <del>FT</del> | <del>DUCT 0.87 50 W</del> | <del>CONDUIT WHIT 0.87 ID</del>           |
| <del>201</del>     | <del>6</del> | <del>IN</del> | <del>M23053/5 111 0</del> | <del>TBC SHRINK 1 1/2 ID BLK</del>        |
| 202                | 1            | EA            | 13090771-01               | CONDUCTOR RING 9-7500                     |

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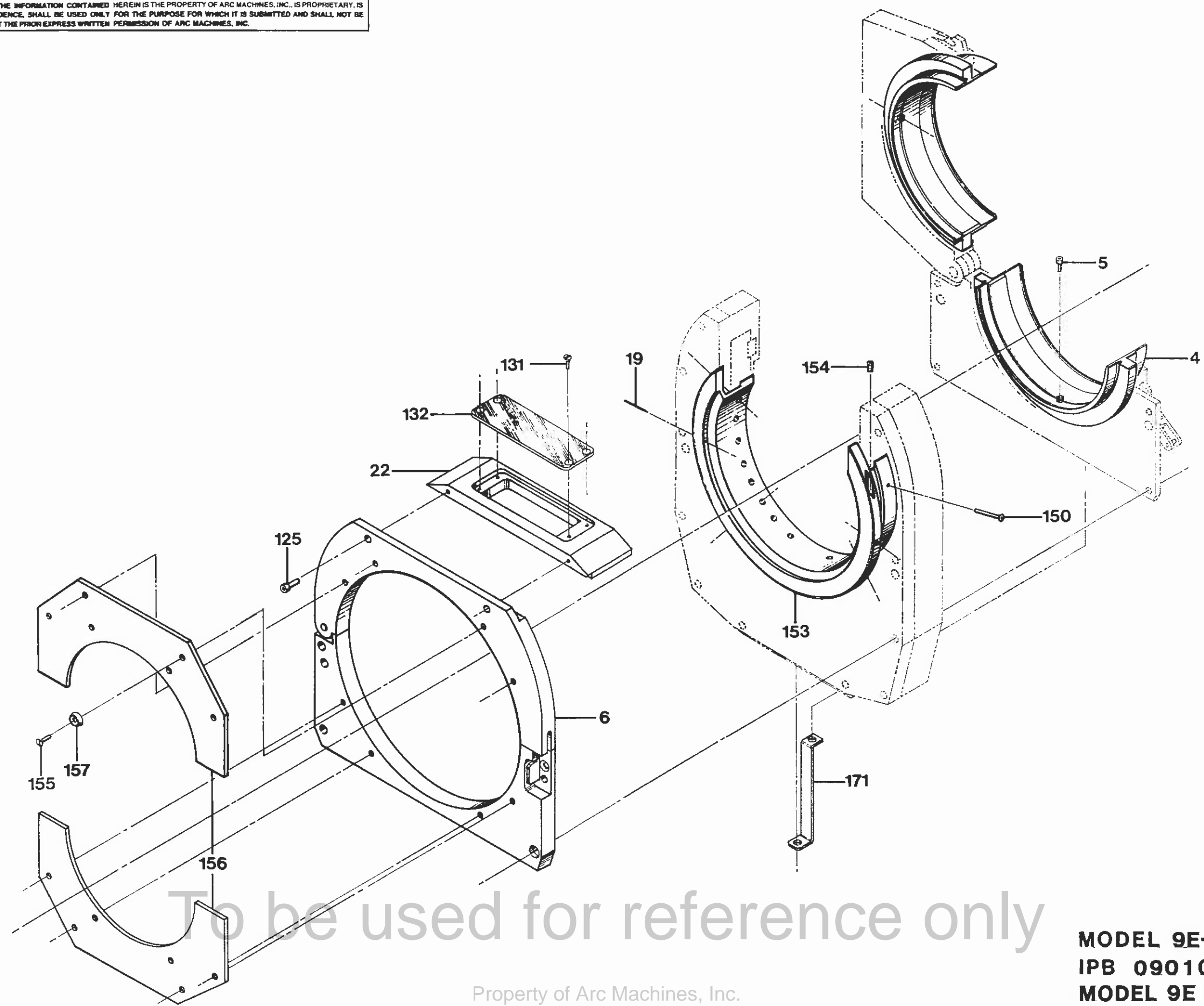
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ART No.

REV TO DATE 01/16/16 BY RCH/AR/06/17



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MODEL 9E-7500  
IPB 090106  
MODEL 9E CONFIGURATION

IPB NUMBER: 090106

TO ORDER  
USE PART NUMBER  
DO NOT USE IPB  
ITEM NUMBER

ARC MACHINES, INC.

PRODUCT MODEL: 9-7500  
DESCRIPTION: MODEL 9E CONFIGURATION  
MANUAL NUMBER: 730036  
NOTES:

| IPB ITEM<br>NUMBER | QTY | U/M | PART NUMBER     | DESCRIPTION                    |                              |
|--------------------|-----|-----|-----------------|--------------------------------|------------------------------|
| 1                  | 0   | -   | -               | -----                          |                              |
| 4                  | 0   | -   | -               | -----                          | CLAMP INSERT-ORD BY SIZE     |
| 5                  | 2   | EA  | SCS08-32-0.37NP | SCREW CAP SKT 8-32 3/8 L       |                              |
| 6                  | 1   | EA  | 13090549-01     | HOUSING GAS SEAL 9E-7500       |                              |
| 7                  | 0   | -   | -               | -----                          |                              |
| 19                 | 0   | -   | -               | -----                          | TUNGSTEN                     |
| 22                 | 1   | EA  | 420905192-01    | CLOSURE 9E-7500                | (ITEMS 131 AND 132 INCLUDED) |
| 23                 | 0   | -   | -               | -----                          |                              |
| 125                | 2   | EA  | SCS10-32-0.62BO | SCREW CAP SKT 10-32 5/8 BLK OX |                              |
| 126                | 0   | -   | -               | -----                          |                              |
| 131                | 4   | EA  | SFL06-32-0.31NY | SCREW FLH SLT 6-32 5/16 L NYL  |                              |
| 132                | 1   | EA  | 420905192-02    | WINDOW                         |                              |
| 133                | 0   | -   | -               | -----                          |                              |
| 150                | 4   | EA  | SFS08-32-1.25NP | SCREW FLH SKT 8-32 1.25 L      |                              |
| 151                | 0   | -   | -               | -----                          |                              |
| 153                | 1   | EA  | 13090741-01     | ROTOR EXTENSION 9E-7500        |                              |
| 154                | 2   | EA  | 420907144-12    | SCREW SET SKT 6-32 3/8 L FLPT  |                              |
| 155                | 8   | EA  | SFL08-32-0.50NY | SCREW FLH SLT 8-32 1/2 L NYL   |                              |
| 156                | 0   | -   | -               | -----                          | GAS SEALS-ORD BY SIZE        |
| 157                | 8   | EA  | 11SFW0008       | WASHER NYLON FINISHING #8      |                              |
| 158                | 0   | -   | -               | -----                          |                              |
| 171                | 1   | EA  | 42090749-04     | GROUND STRAP                   |                              |
| 172                | 0   | -   | -               | -----                          |                              |
| 180                | 1   | EA  | 13090158-05     | KIT CVRSN M9-7500 TO M9E-7500  |                              |

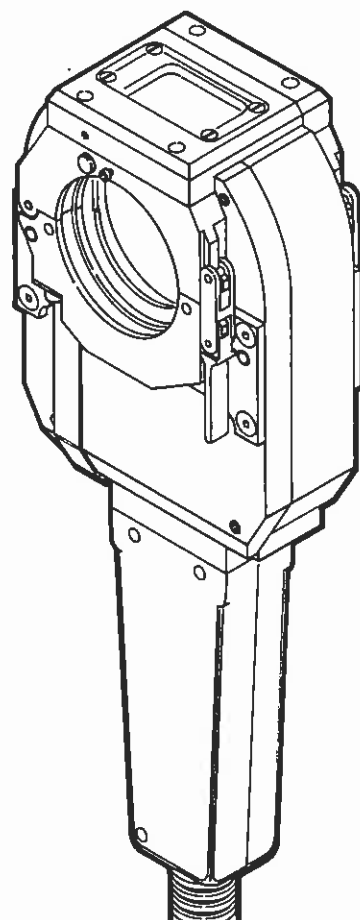
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To be used for reference only

PRICE, PART NUMBER AND  
DESCRIPTION SUBJECT TO  
CHANGE WITHOUT NOTICE  
Property of Arc Machines, Inc.

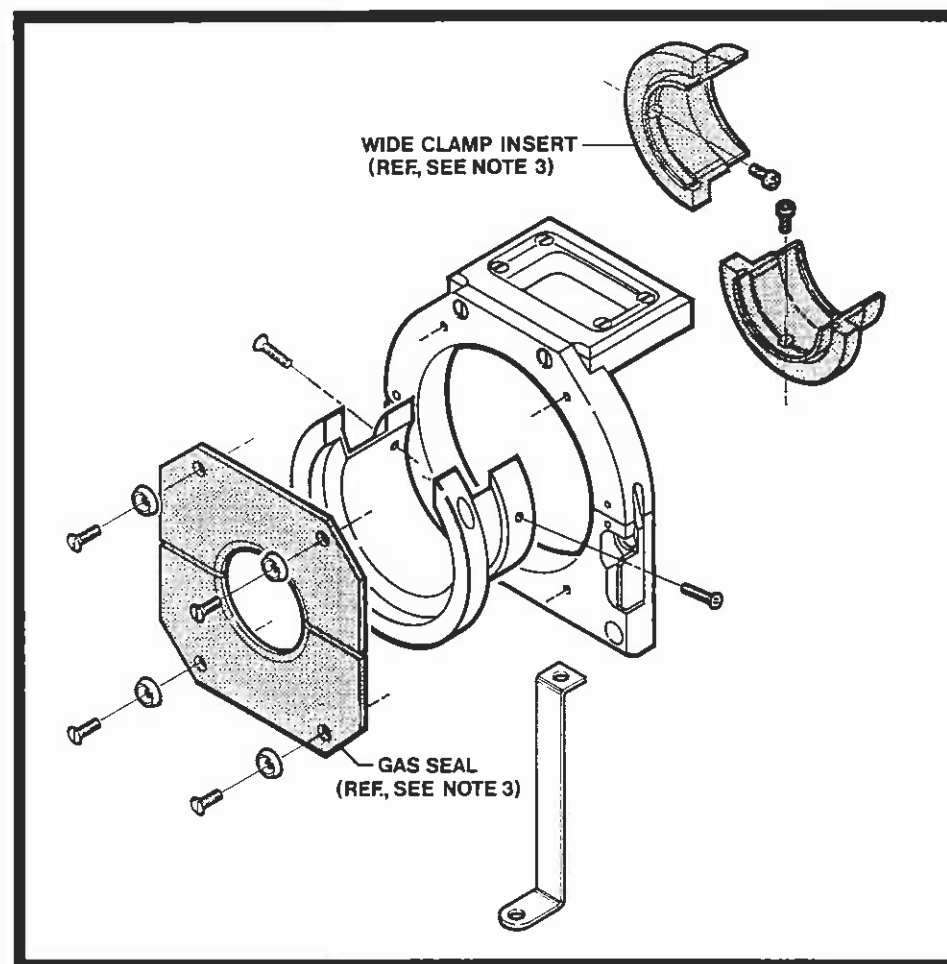
# MODEL 9 CONVERSION TO MODEL 9E INSTRUCTIONS

P/N 750031

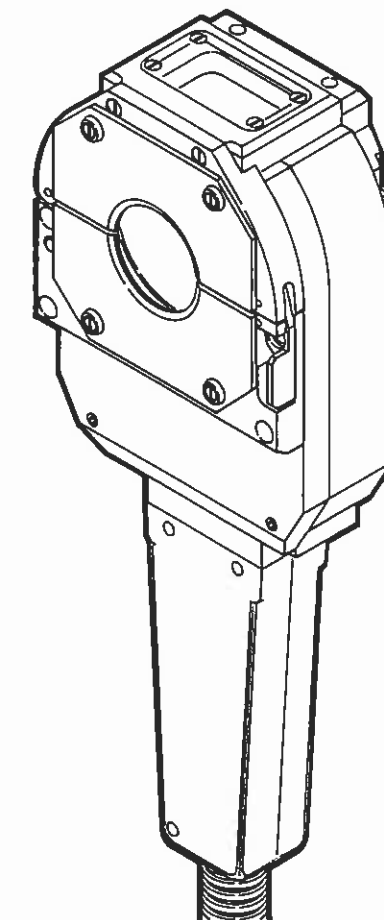
(MODELS 9-1500, 9-2500, 9-3500, 9-4500 AND 9-7500)



MODEL 9



MODEL 9E KIT  
( OPTION )



MODEL 9E

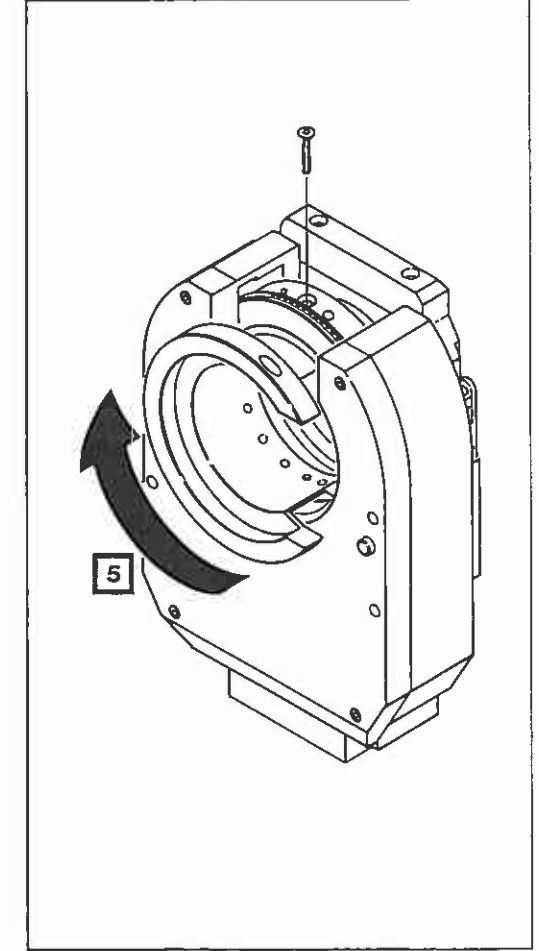
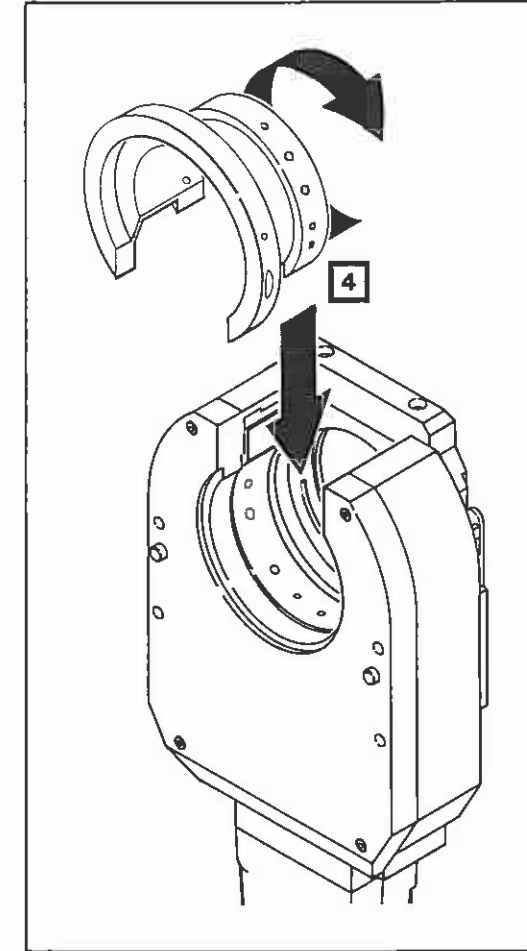
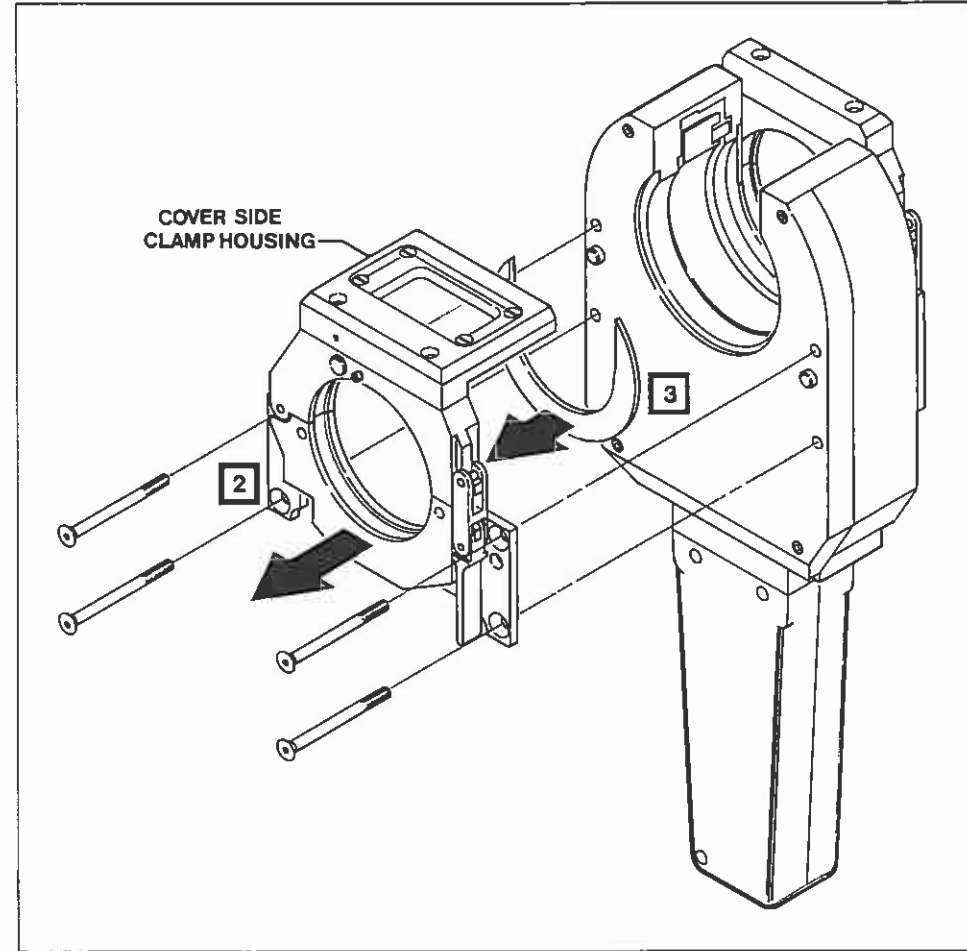
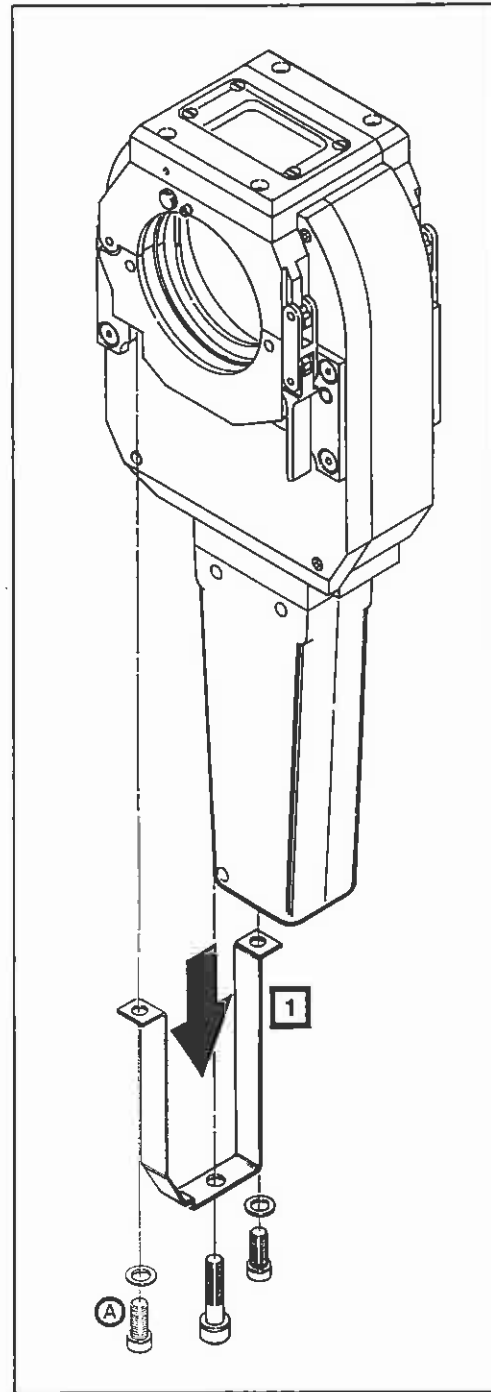
**NOTES :** 1. TO ORDER MODEL 9E KIT SPECIFY WELD HEAD MODEL NUMBER.

2. MODEL 9-2500 USED FOR ILLUSTRATION.

3. WIDE CLAMP INSERT AND GAS SEAL ARE NOT INCLUDED IN KIT.

TO ORDER WIDE CLAMP INSERT AND GAS SEAL SPECIFY TUBE SIZE ( O.D. ).

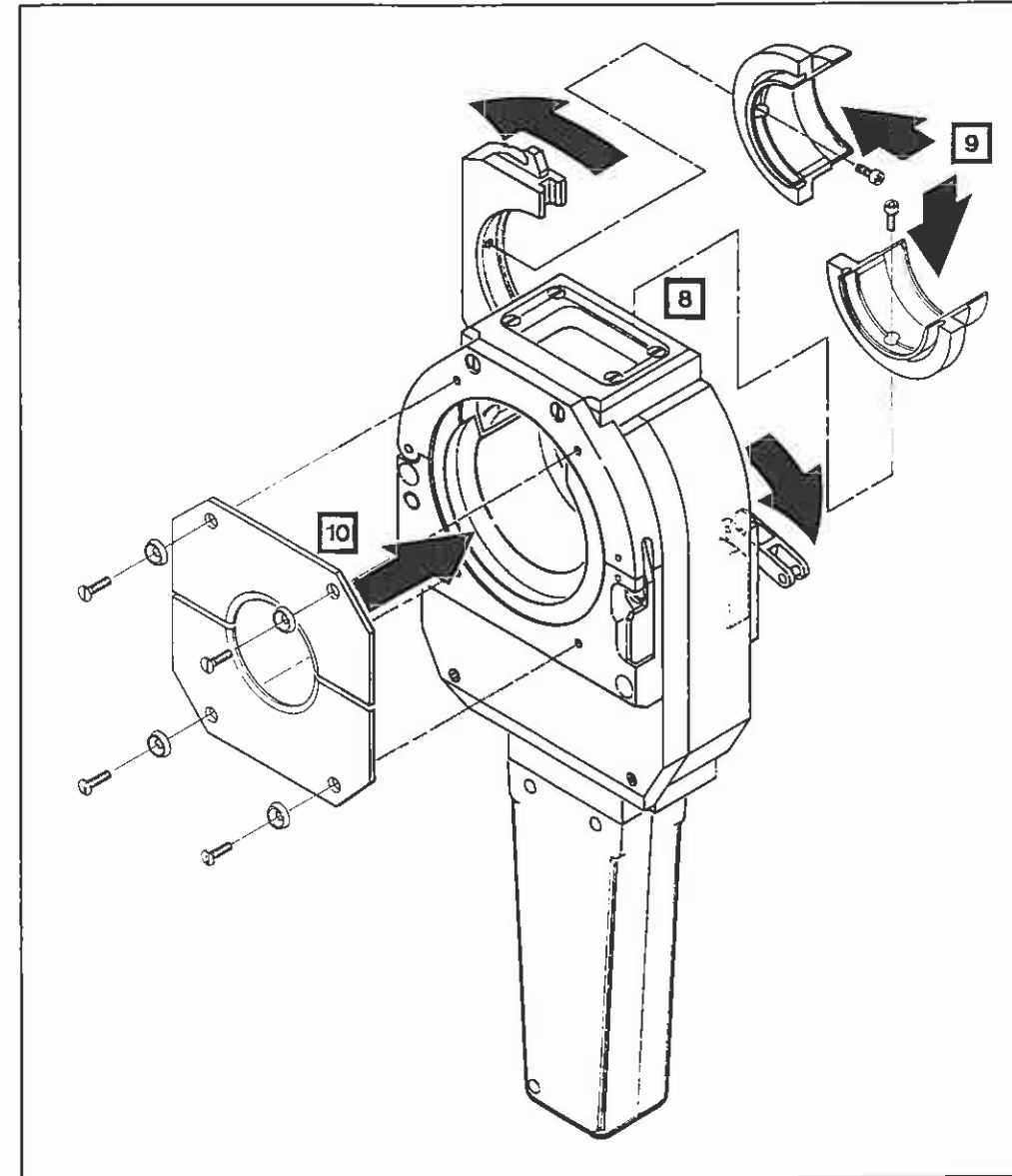
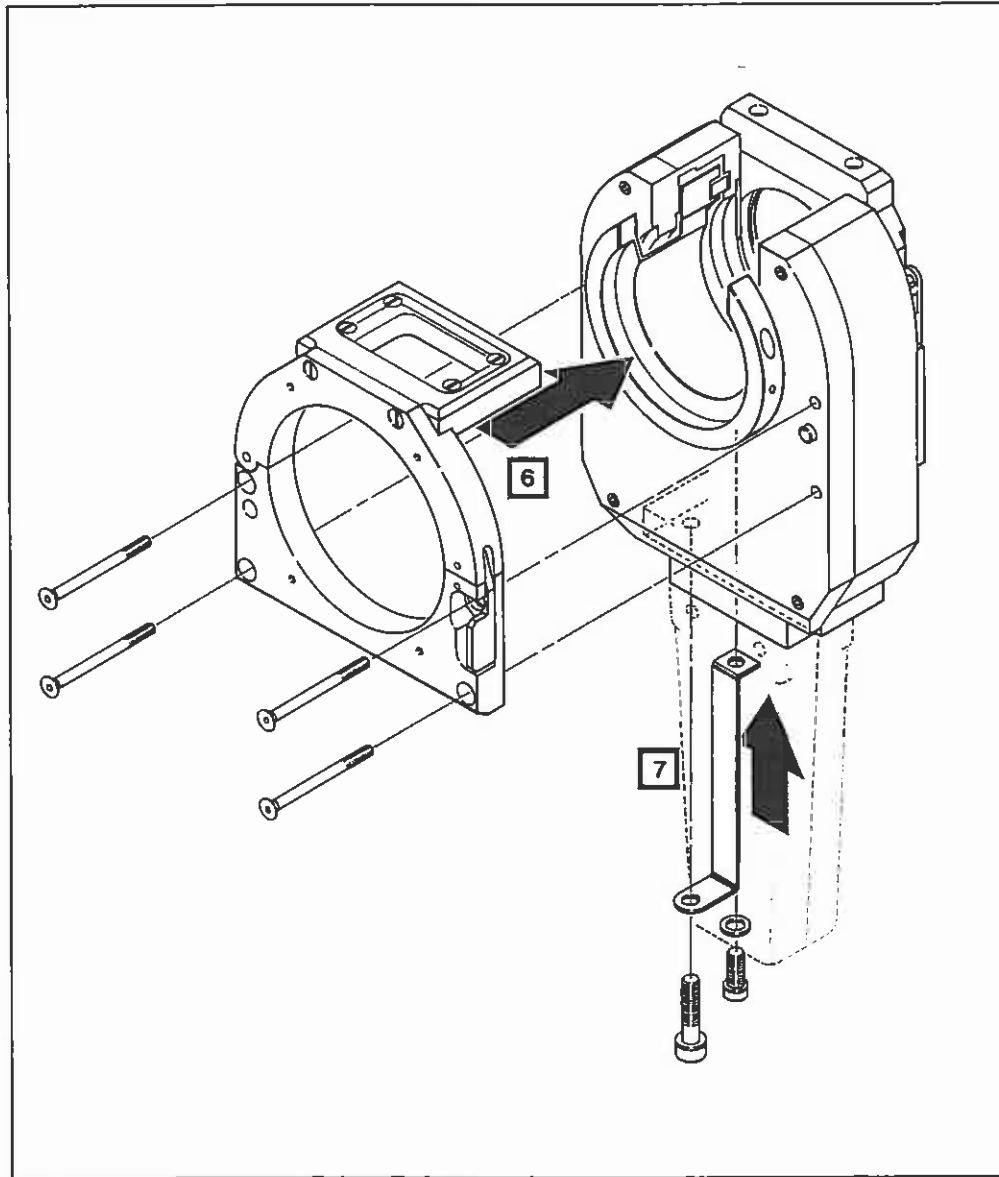
To be used for reference only



- 1** REMOVE ORIGINAL GROUND STRAP EXCEPT ON MODEL 9-1500 REMOVE SCREW **A** ONLY ( ORIGINAL GROUND STRAP IS USED ).
- 2** REMOVE COVER SIDE CLAMP HOUSING.
- 3** REMOVE HEAT SHIELD.
- 4** INSTALL ROTOR EXTENSION FROM THE KIT.
- 5** CONNECT WELD HEAD TO POWER SUPPLY AND JOG ROTOR UNTIL ROTOR EXTENSION MOUNTING SCREW HOLE IS ACCESSIBLE. INSTALL MOUNTING SCREWS ( 2 TO 4 EACH DEPENDING ON MODEL # ) AND TIGHTEN.

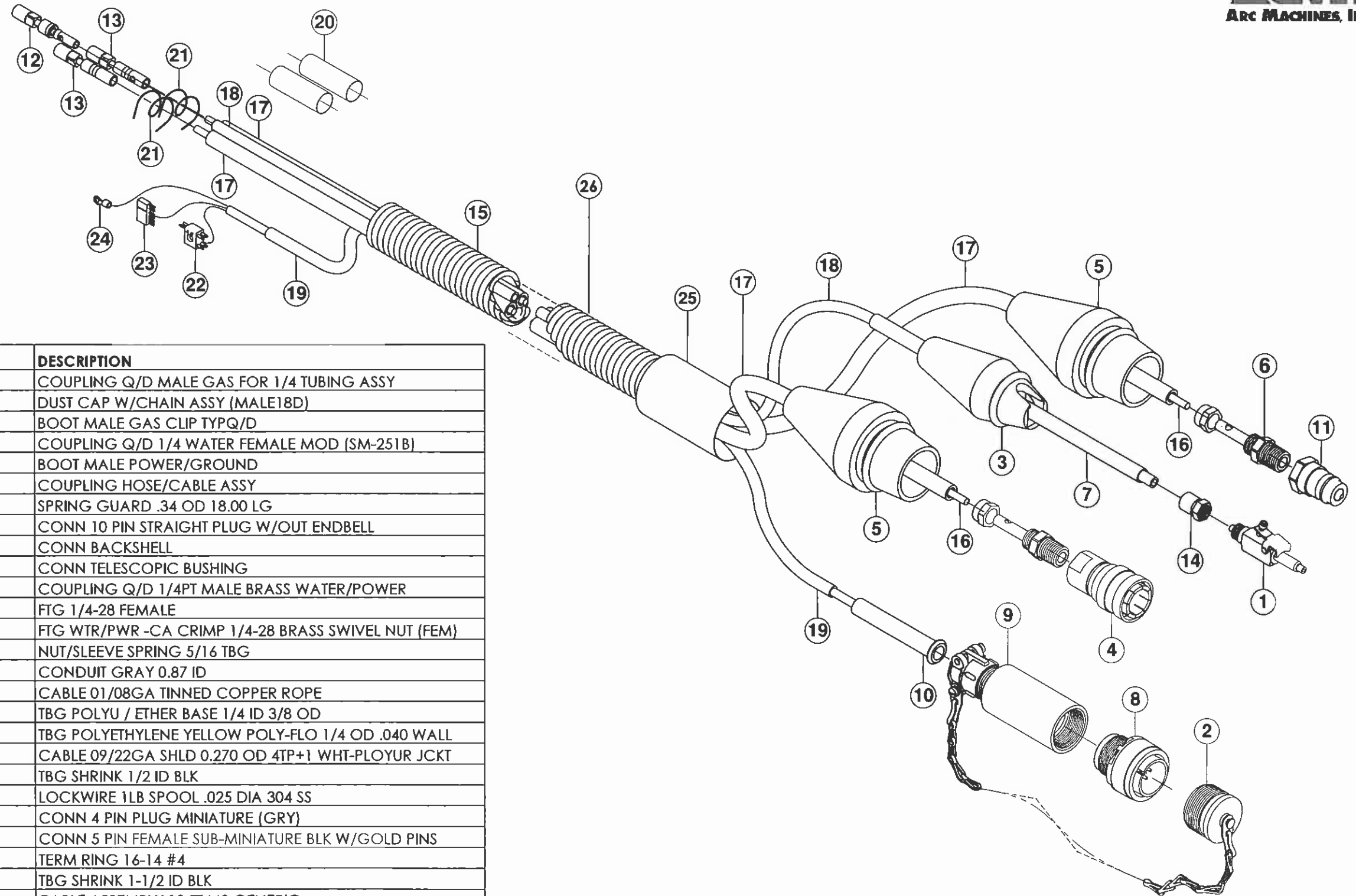
To be used for reference only





- 6** MOUNT THE GAS SEAL HOUSING ASSEMBLY FROM THE KIT TO THE WELD HEAD USING ORIGINAL SCREWS.
- 7** INSTALL GROUND STRAP FROM THE KIT USING ORIGINAL SCREWS, EXCEPT FOR MODEL 9-1500 USE ORIGINAL GROUND STRAP AND SCREWS.
- 8** OPEN HOUSING SIDE CLAMP.
- 9** INSTALL WIDE CLAMP INSERT ASSEMBLY (NOT PROVIDED IN CONVERSION KIT).
- 10** INSTALL GAS SEAL ASSEMBLY (NOT PROVIDED IN CONVERSION KIT).

To be used for reference only



| ITEM NO. | QTY. | PART NO.        | DESCRIPTION   |
|----------|------|-----------------|---|
| 1        | 1    | 1351109-01      | COUPLING Q/D MALE GAS FOR 1/4 TUBING ASSY           |
| 2        | 1    | 1350110-04      | DUST CAP W/CHAIN ASSY (MALE18D)                     |
| 3        | 1    | 42060805-04     | BOOT MALE GAS CLIP TYPQ/D                           |
| 4        | 1    | 42060800-02     | COUPLING Q/D 1/4 WATER FEMALE MOD (SM-251B)         |
| 5        | 2    | 42060804-01     | BOOT MALE POWER/GROUND                              |
| 6        | 2    | 42060800-07     | COUPLING HOSE/CABLE ASSY                            |
| 7        | 1    | AS200718        | SPRING GUARD .34 OD 18.00 LG                        |
| 8        | 1    | MS3106E18-1PF42 | CONN 10 PIN STRAIGHT PLUG W/OUT ENDBELL             |
| 9        | 1    | G1501N186A3A    | CONN BACKSHELL                                      |
| 10       | 1    | MS39056-3       | CONN TELESCOPIC BUSHING                             |
| 11       | 1    | SM-252B         | COUPLING Q/D 1/4PT MALE BRASS WATER/POWER           |
| 12       | 1    | 2PF1            | FTG 1/4-28 FEMALE                                   |
| 13       | 2    | ARC-1881        | FTG WTR/PWR -CA CRIMP 1/4-28 BRASS SWIVEL NUT (FEM) |
| 14       | 1    | 261-PG-04       | NUT/SLEEVE SPRING 5/16 TBG                          |
| 15       | 1    | DUCT-0.87-50-G  | CONDUIT GRAY 0.87 ID                                |
| 16       | 2    | NER7-95-36T     | CABLE 01/08GA TINNED COPPER ROPE                    |
| 17       | 2    | 42090806-01     | TBG POLYU / ETHER BASE 1/4 ID 3/8 OD                |
| 18       | 1    | 44-P-YELLOW     | TBG POLYETHYLENE YELLOW POLY-FLO 1/4 OD .040 WALL   |
| 19       | 1    | CWT11943        | CABLE 09/22GA SHLD 0.270 OD 4TP+1 WHT-PLOYUR JCKT   |
| 20       | 2    | M23053/5-108-0  | TBG SHRINK 1/2 ID BLK                               |
| 21       | 2    | MS20995C25      | LOCKWIRE 1LB SPOOL .025 DIA 304 SS                  |
| 22       | 1    | JF2P2SCD        | CONN 4 PIN PLUG MINIATURE (GRY)                     |
| 23       | 1    | 7052            | CONN 5 PIN FEMALE SUB-MINIATURE BLK W/GOLD PINS     |
| 24       | 1    | 34119           | TERM RING 16-14 #4                                  |
| 25       | 1    | M23053/5-111-0  | TBG SHRINK 1-1/2 ID BLK                             |
| 26       | -    | 13090800-01     | CABLE ASSEMBLY 10 FT M9 GENERIC                     |

To be used for reference only

**MODEL 9**  
**IPB 090800**  
**CABLE ASSEMBLY**

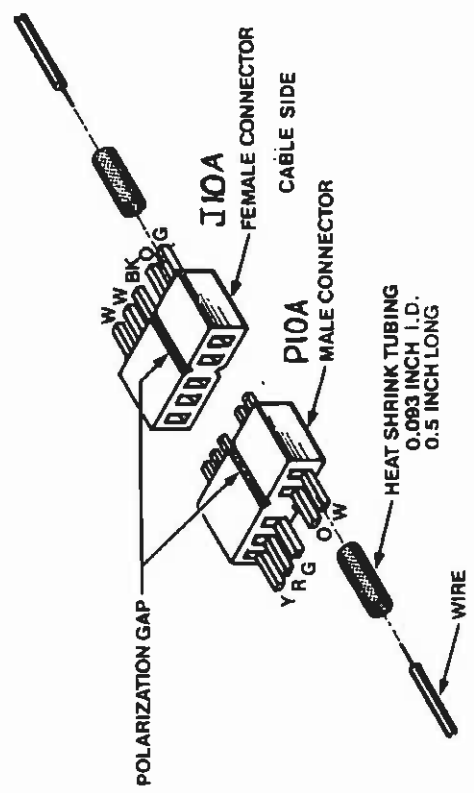
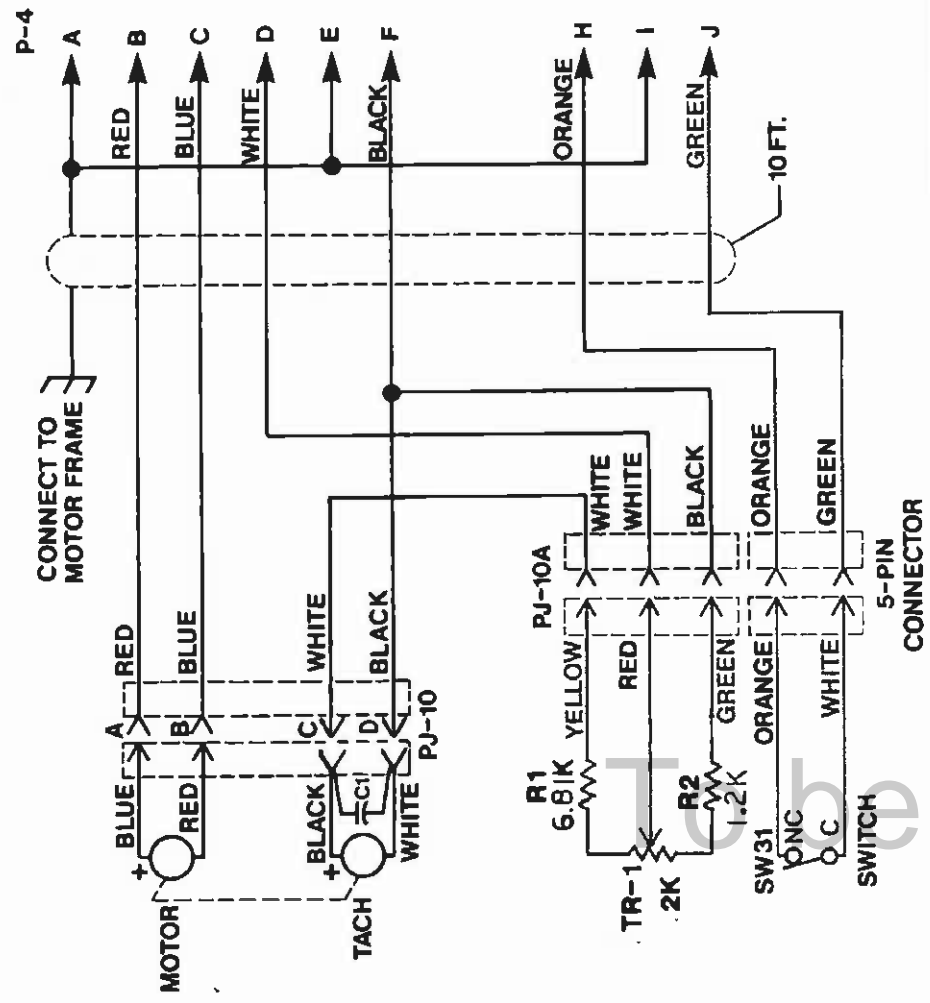
TO ORDER USE PART NUMBER.  
PRICE, PART NUMBER AND DESCRIPTION  
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**THIS IPB SUPERSEDES ALL OTHER IPB'S**  
**REFERENCING 13090800-01 CABLE ASSEMBLY**

ISSUED: 3 JAN 2005  
REVISED: 5 OCT 2010

PAGE 1 OF 1

| LTR | DCD  | REVISIONS  | DATE     | BY | APPR |
|-----|------|--|----------|----|------|
| A   | 1716 | C & D ON PJ-10 REVISED                             | 11-24-92 | MH | J    |
| B   | 1830 | R1 WAS: 7.68K, R2 WAS: 316Ω                        | 11-2-93  | MC | 6PC  |
| C   | 2947 | ADDED P10A & J10A. REMOVED PN'S FOR P10A, J10A, P4 | 12-4-97  | MC | 6PC  |



| ITEM  | QTY | IDENTIFYING NO                             | NOMENCLATURE OR DESCRIPTION | MFR | PART NO |
|---|-----|--|-----------------------------|-----|---------|
| PARTS LIST  |     |  |                             |     |         |
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| UNLESS OTHERWISE SPECIFIED  |     | THIRD ANGLE PROJECTION                     |                             |     |         |
| ALL DIMENSIONS ARE IN INCHES  |     | FOR UNLAPLED STRIPPED ENDS SEE DDD-310-100 |                             |     |         |
| TOLERANCES ARE  |     | APPROVALS                                  |                             |     |         |
| FRACTIONS DECIMALS ANGLES   |     | R. BILEK                                   |                             |     |         |
| ± 1/8" ± .005 ± .010 ± .005   |     | DATE 10-14-85                              |                             |     |         |
| ALL MACHINED SURFACES TO BE   |     | DATE 10-16-85                              |                             |     |         |
| MATERIAL  |     | DATE 11-2-93                               |                             |     |         |
| [309C080-01]  |     | QUOTATION                                  |                             |     |         |
| NEXT ASSY USED ON   |     | SCALE                                      |                             |     |         |
| APPLICATION   |     | DO NOT SCALE DRAWING                       |                             |     |         |
|   |     | SHEET 1 OF 1                               |                             |     |         |

**ARC MACHINES INC.**  
**MODEL 9 WELD HEAD**  
**WIRING DIAGRAM**