

OPERATIONS AND MAINTENANCE  
INSTRUCTIONS  
FOR THE ECLIPSE NO. 2 POST HYDRANTS

DESCRIPTION

- A. THE YARD HYDRANTS ARE ECLIPSE # 2 POST HYDRANTS MANUFACTURED BY JOHN C. KUPFERLE FOUNDRY CO. 2511 NORTH 9TH STREET, ST. LOUIS, MO. 63102. PHONE 314-231-8738, FAX 314-231-2820
- B. HYDRANTS ARE POST TYPE WITH A \_\_\_\_ FIP INLET AND A \_\_\_\_ NST NOZZLE ON THE OUTLET. ALL OPERATING PARTS OF THE HYDRANT CAN BE SERVICED OR REPLACED WITHOUT DIGGING UP OR DISTURBING THE SUPPLY LINE CONNETION.

OPERATION

- A. HYDRANT IS MANUALLY OPERATED BY USING A HYDRANT WRENCH OR HANDWHEEL ON THE TOP SCREW OR OPERATING NUT. HYDRANT OPENS BY TURNING THE TOP SCREW TO THE LEFT OR COUNTERCLOCKWISE. HYDRANT CLOSES BY TURNING THE TOP SCREW TO THE RIGHT OR CLOCKWISE. HYDRANT CLOSES AGAINST THE PRESSURE. TOP SCREW SHOULD NEVER BE FORCED ONE WAY OR THE OTHER.
- B. THE HYDRANT IS A SELF-DRAINING, NON-FREEZE TYPE. WHEN THE HYDRANT IS TURNED OFF, THE INLET VALVE IS CLOSED AND THE DRAIN PORTS ARE OPENED ALLOWING WATER IN THE HYDRANT AND TRENCH STOCK TO DRAIN OUT THROUGH THE DRAIN OPENING IN THE IRON BASIN.

INSTALLATION

- A. SET HYDRANT IN A SUFFICIENT SUPPLY OF CRUSHED STONE OR GRAVEL TO INSURE DRAINAGE FROM THE DRAIN HOLE IN THE HYDRANT BOTTOM.
- B. SUPPLY LINES **MUST** BE FLUSHED FREE OF ROCK, GRAVEL AND OTHER DEBRIS BEFORE CONNECTING THE HYDRANT.
- C. INSTRUCTIONS OF THE AMERICAN WATER WORKS ASSOCIATION SHOULD BE FOLLOWED WHEN PLACING AND TESTING HYDRANT.
- D. IF IT IS NECESSARY TO ROTATE THE BOTTOM DURING INSTALATION IT MUST BE TURNED IN A CLOCKWISE DIRECTION.

PARTS REPLACEMENT

- A. REPLACEMENT PARTS MAY BE OBTAINED FROM ANY WATER WORKS DISTRIBUTOR. A LIST OF DISTRIBUTORS MAY BE OBTAINED BY CALLING KUPFERLE FOUNDRY CO. AT 800-231-3990.
- B. SERVICING OF THE HYDRANT OR REPLACEMENT OF WORN PARTS CAN BE ACCOMPLISHED WITHOUT DIGGING UP OR DISTURBING THE SUPPLY LINE CONNECCTION. THIS IS DONE BY REMOVING THE FOUR (4) BOLTS HOLDING THE TOP CAP IN PLACE. THE TOP CAP AND INSIDE OPERATING PARTS CAN BE LIFTED OUT OF THE HYDRANT FOR SERVICING REPAIR OR REPLACEMENT.
- C. HYDRANT PARTS ARE IDENTIFIED AND PART NUMBERS ARE LISTED ON THE FOLLOWING DETAIL SHEETS.
  - a. ECLIPSE #2 DETAIL DRAWING
  - b. PARTS LIST SHEETS
- D. IF HYDRANTS ARE USED DAILY AS ANNUAL INSPECTION OF THE O-RINGS AND SEAT RUBBER ARE RECOMMENDED. A #X566-NS WASHER SET (1 - SEAT RUBBER AND 2 - O-RINGS) SHOULD BE KEPT ON HAND. WHEN REPLACING DRAIN CUPS, LUBRICATE WITH NON-TOXIC OIL (VEGETABLE, LINSEED, ECT.) WHEN REINSERTING INTO HYDRANT.
- E.
- F. FOR PROPER OPERATION, THE HYDRANT SHOULD HAVE 4 BUT NO MORE THAN 5 FULL TURNS ON THE OPERATING NUT.

**ECLIPSE**  
ESTABLISHED  
Since 1857



**THE KUPFERLE FOUNDRY COMPANY**

## TROUBLESHOOTING THE ECLIPSE #2 POST HYDRANT

IF YOUR # 2 IS LEAKING OUT OF THE NOZZLE AT THE TOP OR OUT OF DRAIN HOLE UNDER THE GROUND, EITHER THERE IS SOME DEBRIS IN THE WATERLINE (ROCKS, WEEDS, YOU NAME IT, WE'VE SEEN IT) THAT IS PREVENTING THE MAIN SEAT RUBBER FROM SEALING AGAINST THE BRASS SEAT RING, OR THE SEAT RUBBER AND/OR DRAIN LEATHERS /O-RINGS HAVE SIMPLY WORN OUT AND NEED TO BE REPLACED.

HERE'S HOW TO FIX THE PROBLEM:

- STEP 1) TURN THE WATER OFF LEADING TO THE HYDRANT.
- STEP 2) OPEN THE HYDRANT ALL THE WAY (4-5 TURNS TO THE LEFT)
- STEP 3) UNBOLT THE FOUR NUTS/BOLTS HOLDING THE TOP CAP ON AT THE TOP OF THE HYDRANT.
- STEP 4) PULL UP ON THE TOP CAP. DO NOT TURN IN EITHER DIRECTION. ALL OF THESE WORKING PARTS WILL COME OUT, INCLUDING THE OPERATING ROD AND THE PLUNGER.
- STEP 5) INSPECT THE MAIN SEAT RUBBER ON THE PLUNGER FOR SIGNS OF DAMAGE AND/OR WEAR. DO THE SAME FOR THE DRAIN LEATHERS/O-RINGS AT THE TIP OF PLUNGER. IF ANY OF THESE PARTS ARE MISSING OR DAMAGED, REPLACE THEM USING NEW PARTS FROM THE # X566 VALVE WASHER SET. BE SURE TO SPECIFY CUP LEATHERS OR O-RINGS WHEN YOU ORDER.
- STEP 6) **IMPORTANT !!!** TURN THE WATER BACK ON AND FLUSH OUT HYDRANT, THOROUGHLY REMOVING ANY DEBRIS THAT MAY BE IN THE WATERLINE, **BEFORE** YOU REINSERT THE WORKING PARTS.
- STEP 7) REVERSE STEPS 1-4. BE SURE TO LUBBRICATE THE PLUNGER TIP WITH A NON-TOXIC LUBRICANT LIKE VEGETABLE OIL, FDA APPROVED GREASE, ETC. WHEN PUTTING A ROD WITH LEATHER CUP WASHERS ON THE PLUNGER TIP BACK IN, TAP VERY SOFTLY ON THE OPERATING NUT WITH A BRASS HAMMER TO EASE THEM INTO THE BRASS WASTE TUBE.

# ANSWER THE FOLLOWING QUESTIONS BEFORE ORDERING PARTS

CRICLE THE CORRECT ANSWERS

1) MY HAYDRANT HAS A PETAGON OPERATING NUT MEASURING

1-1/4" OR 1-1/2"

2) THE O.D. OF THE PACKING NUT IS...

1.94" OR 2.28"

3) THE TOP STOCK HAS AN UPPER SLOTTED NUT HOLDERS OR FULL FLANGE

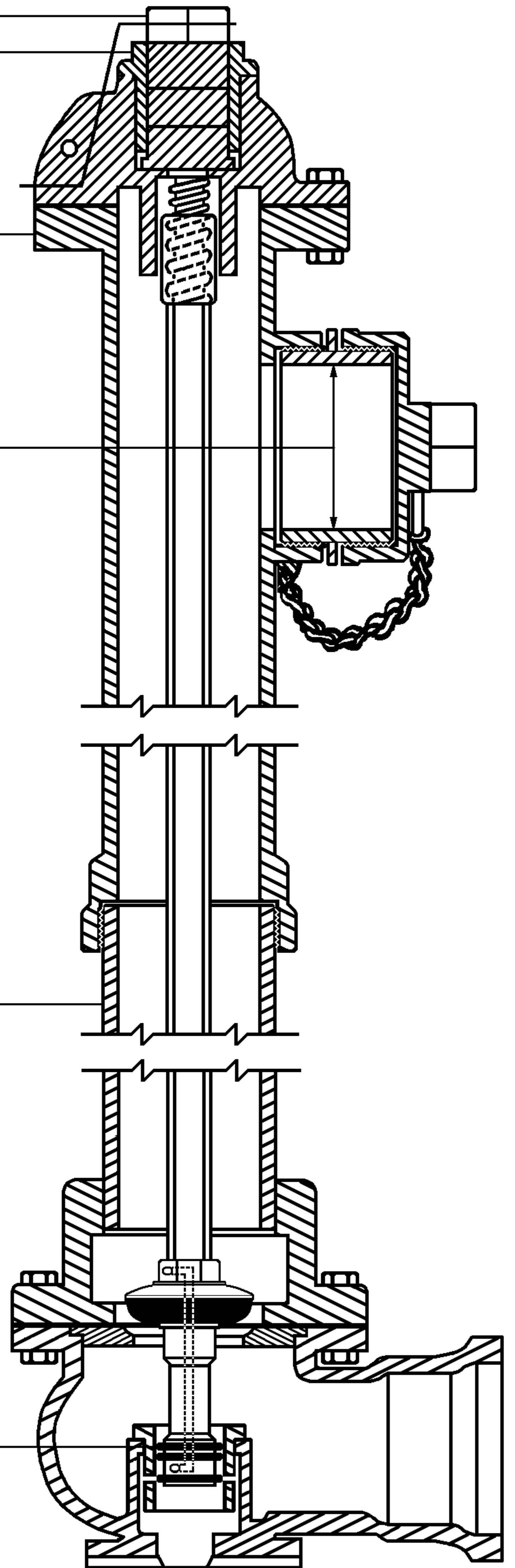
4) THE I.D. OF THE NOZZLE IS...

1.94" OR 2.55"

5) THE PIPE ENTERING THE TOP STOCK IS...

STEEL PIPE OR DUCTILE IRON PIPE  
(3.5" O.D.) (3.94" O.D.)

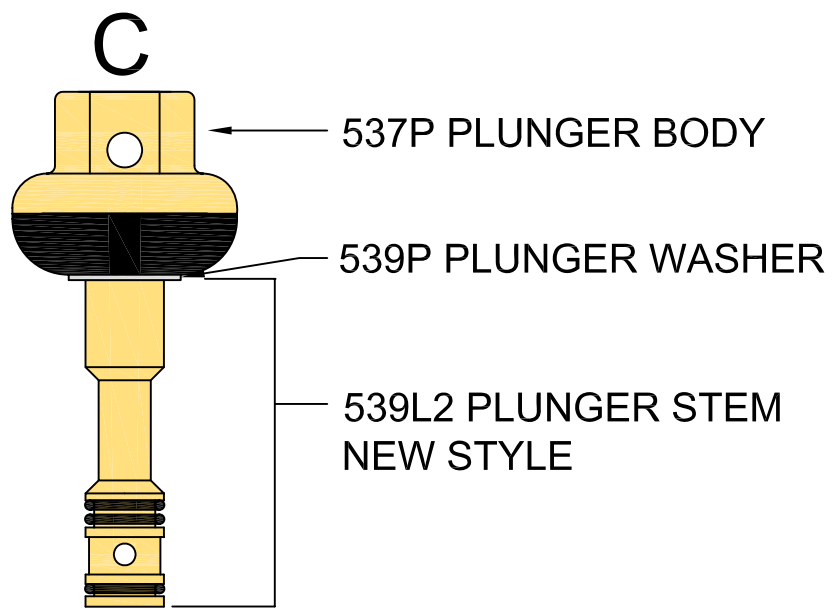
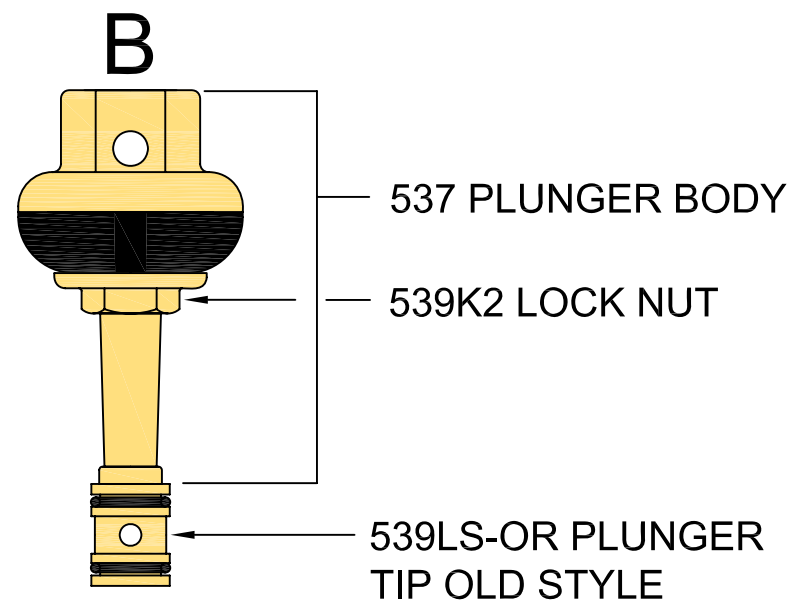
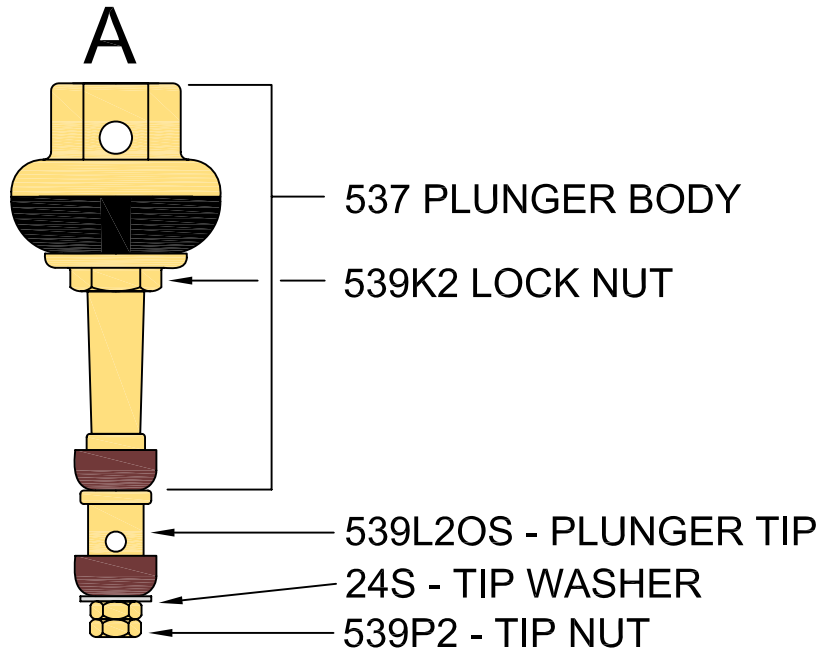
6) THE PLUNGER HAS WHICH STYE DRAIN SEALS



**ECLIPSE**  
TRADEMARK  
REGISTERED  
Since 1857

**KUPFERLE FOUNDRY COMPANY**

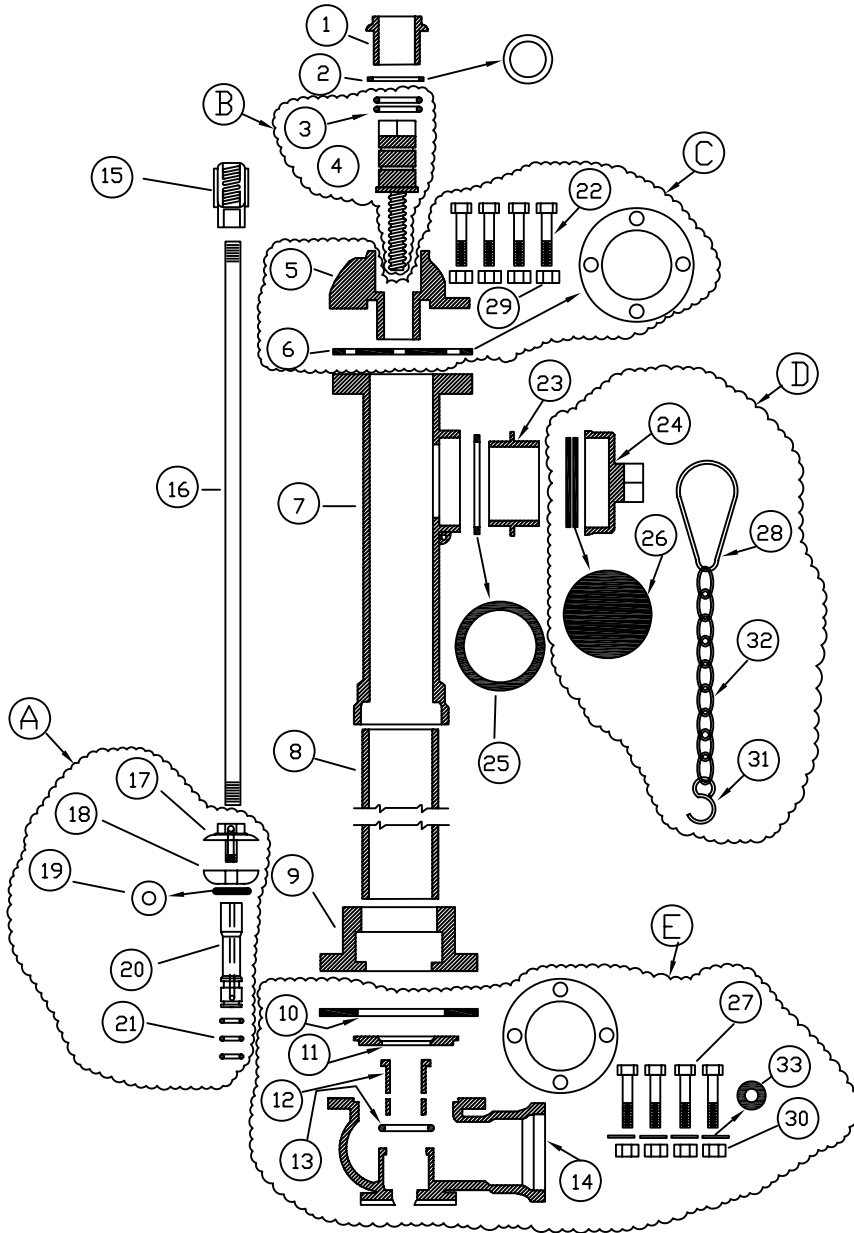
2511 N. 9TH STREET, ST. LOUIS, MO 63102  
(314) 231-8738 FAX (314) 231-2820 (800) 231-3990



**#2 ECLIPSE POST HYDRANT  
PLUNGER IDENTIFICATION SHEET**

- A = OLD STYLE PLUNGER WITH (2) CUP LEATHERS
- B = NEWER STYLE PLUNGER WITH (2) O-RINGS
- C = NEWEST STYLE PLUNGER WITH (3) O-RINGS



# #2 POST HYDRANT



NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	739	PACKING NUT
2	1	669	GASKET
3	2	668	O-RING
4	1	501A	OPERATING SCREW
5	1	581-C	TOP CAP
6	1	2-A-NS	TOP CAP GASKET
7	1	487-H	TOP STOCK
8	1	3 DUC	3" DUCTILE PIPE
9	1	661	COUPLING
10	1	2-A-NS	BOTTOM GASKET
11	1	521	SEAT RING
12	1	611	WASTE TUBE
13	1	A-19	O-RING
14	1	571	BOTTOM
15	1	511	CONNECTING NUT
16	1	505-B	OPERATING ROD
17	1	537-P	PLUNGER TOP
18	1	541	SEAT RUBBER
19	1	539W	S.S. WASHER
20	1	539L2	PLUNGER TUBE
21	3	2OR	O-RING
22	4	628A-B	BOLTS
23	1	716	NOZZLE
24	1	592A	SIDE CAP
25	1	95G	GASKET
26	2	A16	SIDE CAP GASKET
27	4	629-A-B	BOTTOM BOLTS
28	1	PR	CHAIN ASSEMBLY
29	4	629-A-N	TOP CAP NUTS
30	4	629-A-N	BOTTOM NUTS
31	1	9S	S-HOOK
32	1	CH	LENGTH OF CHAIN
33	4	½ W	BOTTOM BOLT WASHER

## ASSEMBLIES

ASSEMBLY	QTY.	PART NUMBER	DESCRIPTION
A	1	X531-DUR	N.S. PLUNGER COMPLETE
B	1	X501A	1 ½ PENT. OPER. SCREW
C	1	X581C	N.S. TOP CAP COMPLETE
D	1	X592A	2 ½ NST 1 ½ PENT S.CAP
E	1		SPECIFY INLET OF BOTTOM

  
  
 2511 N 9TH STREET, ST LOUIS, MO 63102  
 (314) 231-8738 FAX (314) 231-2820 (800) 231-3990

571-A	2" IP
571-C	3" IP
571-D	2" MJ
571-E	3" MJ
571-L	4" MJ