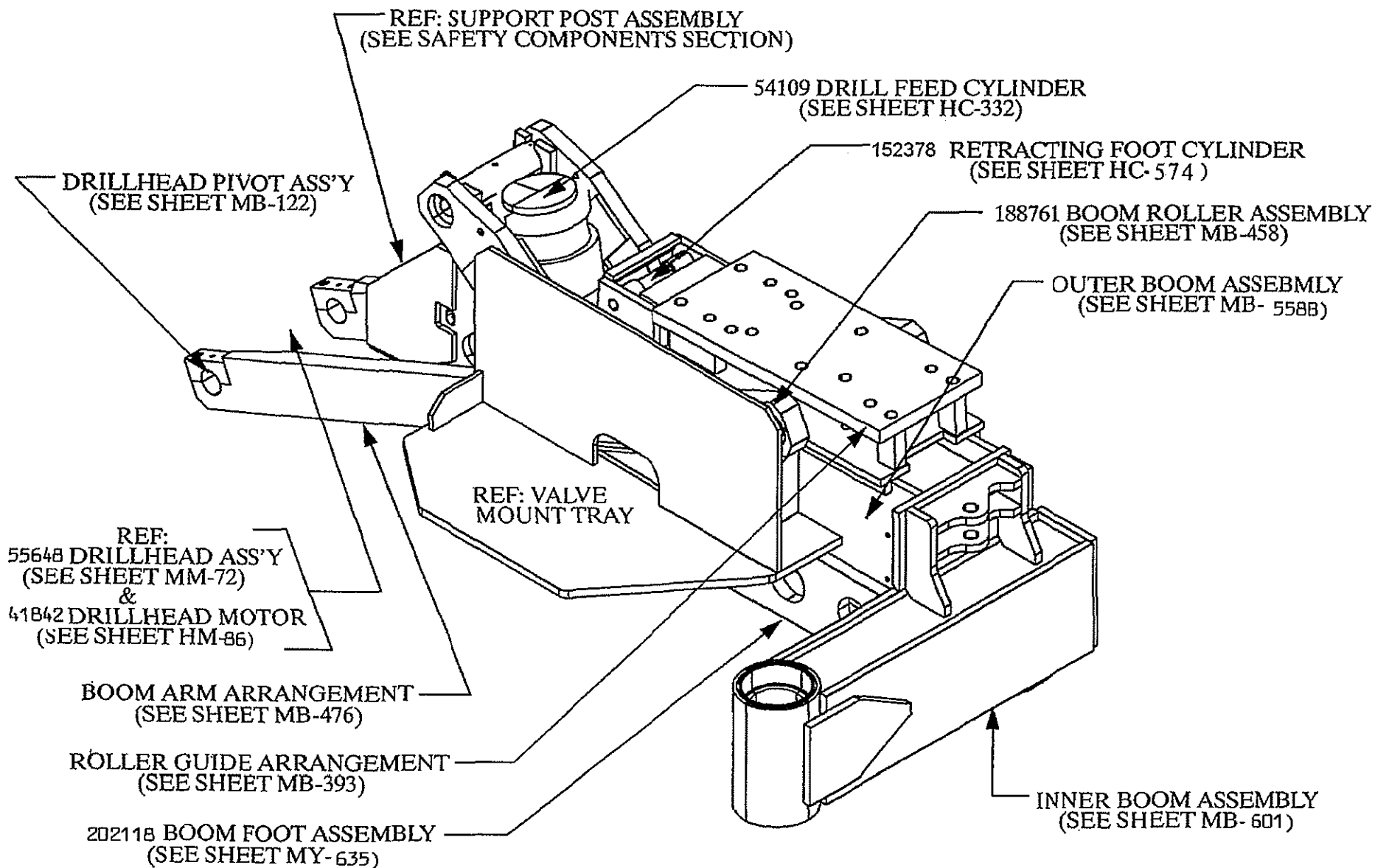


INDEX FOR DRILLING UNIT

94033

<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>SHEET NO.</u>	<u>NO. REQ'D</u>
DRILL FEED CYLINDER	54109	HC-332	2
R.H. BOOM EXTEND/SUMP CYLINDER	56641	HC-463	1
L.H. BOOM EXTEND/SUMP CYLINDER	56642	HC-463A	1
BOOM SWING CYLINDER	152244	HC-469C	2
BOOM FOOT CYLINDER	152378	HC-574	2
DRILLHEAD MOTOR ASSEMBLY	41842	HM-86	2
DRILLHEAD PIVOT ARRANGEMENT		MB-122	2
BOOM ROLLER GUIDE ARRANGEMENT		MB-393	2
BOOM ROLLER ASSEMBLY	188761	MB-458	2
BOOM ARM ARRANGEMENT		MB-476	2
OUTER BOOM ASSEMBLY		MB-5588	2
INNER BOOM ASSEMBLY		MB-601	2
DRILLHEAD ASSEMBLY	55648	MM-72	2
PANTOGRAPH SPROCKET GUARD	167033	MY-402	2
BOOM FOOT ASSEMBLY	202118	MY-635	2
HOSE RETAINER FOR DRILLHEAD LID	160815	MY-1008	4
BELT GUARD & TAG ARRANGEMENT		MY-1085	2



SHEET NO.

RR2DL2

TITLE

DRILLING UNIT ARRANGEMENT

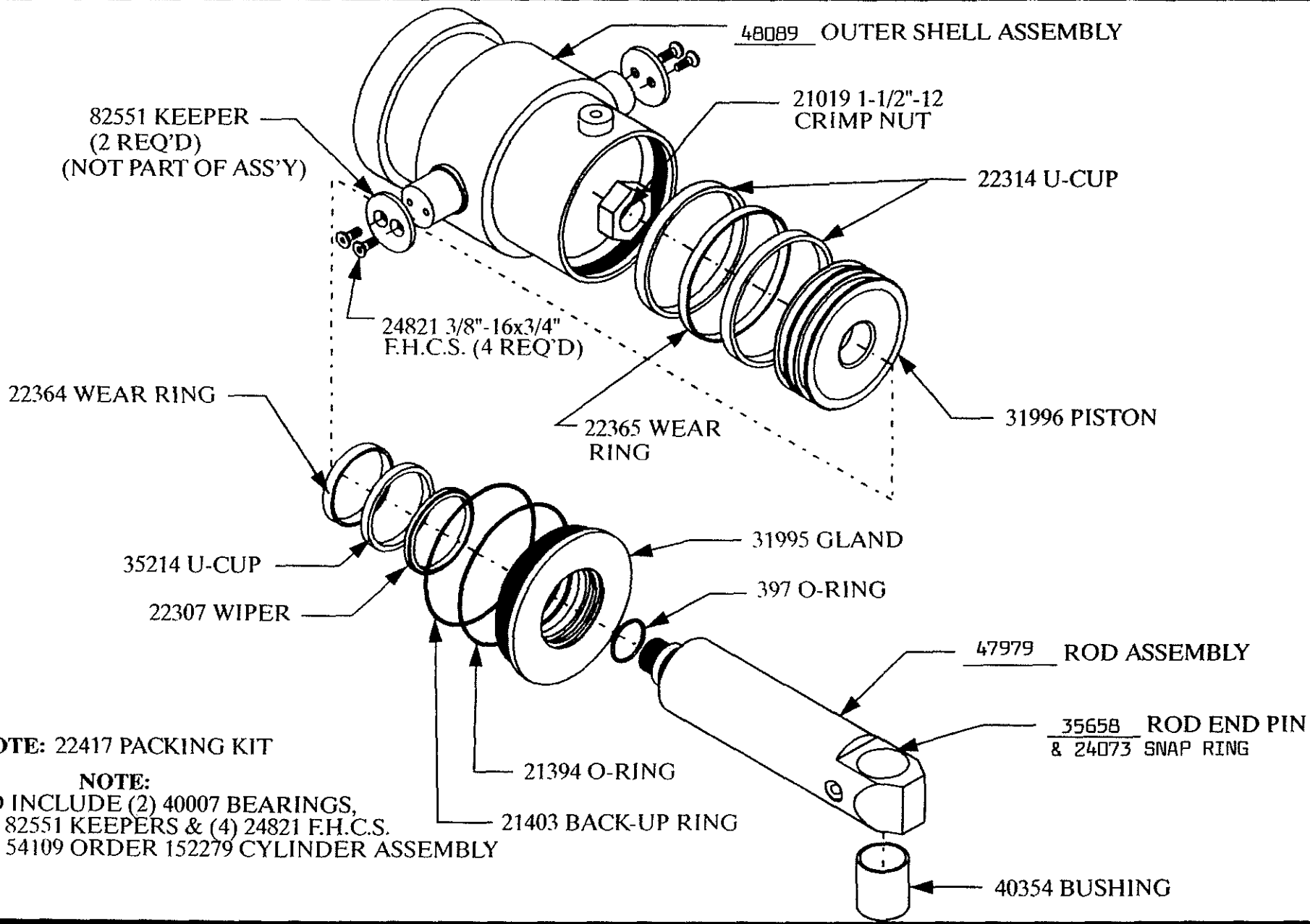
DATE

7/25/92

J.H. FLETCHER & CO.

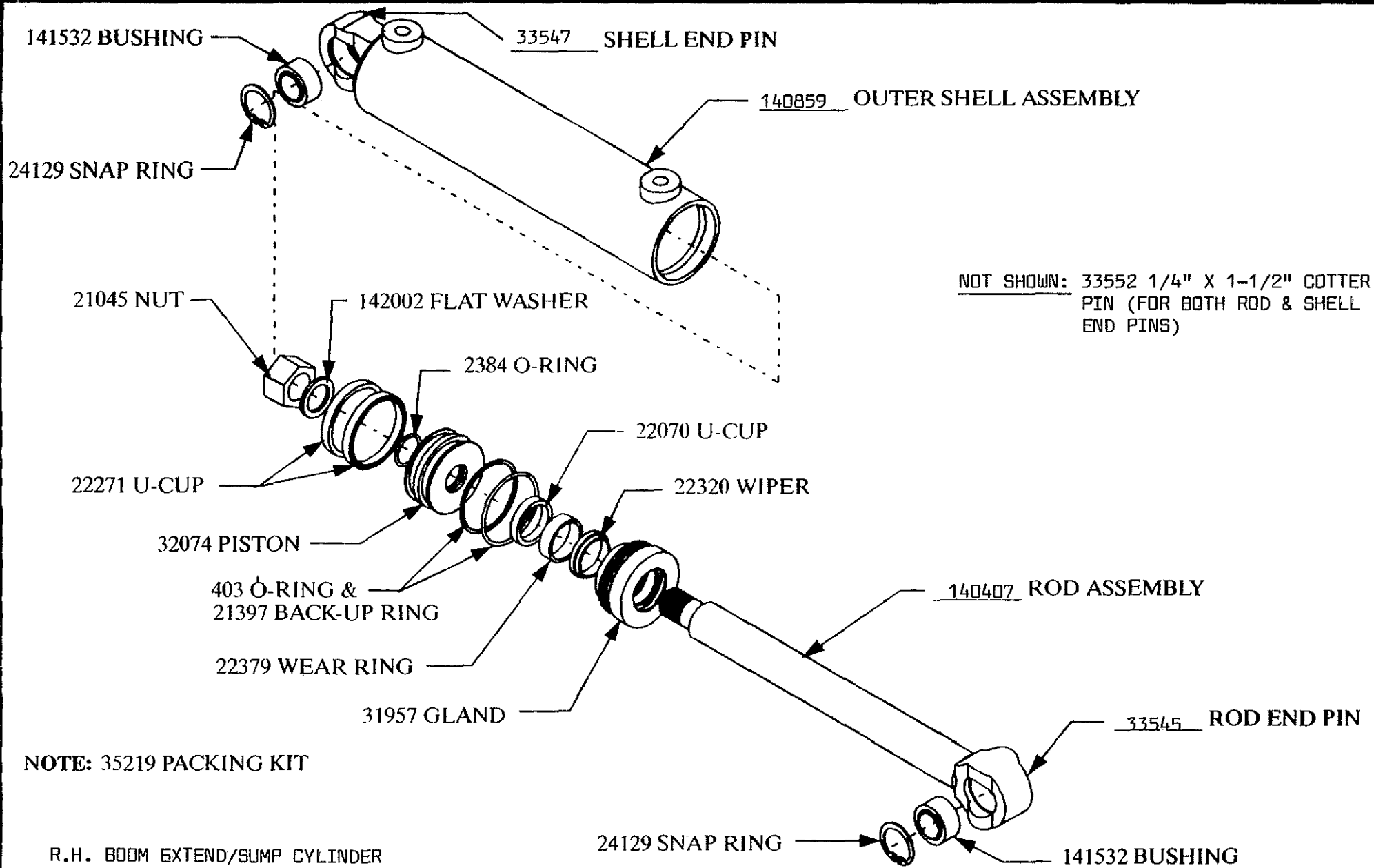
402 HIGH STREET

HUNTINGTON, W.VA.



NOTE: 22417 PACKING KIT
NOTE:
 TO INCLUDE (2) 40007 BEARINGS,
 (2) 82551 KEEPERS & (4) 24821 F.H.C.S.
 W/ 54109 ORDER 152279 CYLINDER ASSEMBLY

SHEET NO.	TITLE	DATE	J.H. FLETCHER & CO.	
HC-332	54109 DRILL FEED CYLINDER ASSEMBLY	3-13-72	402 HIGH STREET	HUNTINGTON, W.VA.



SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

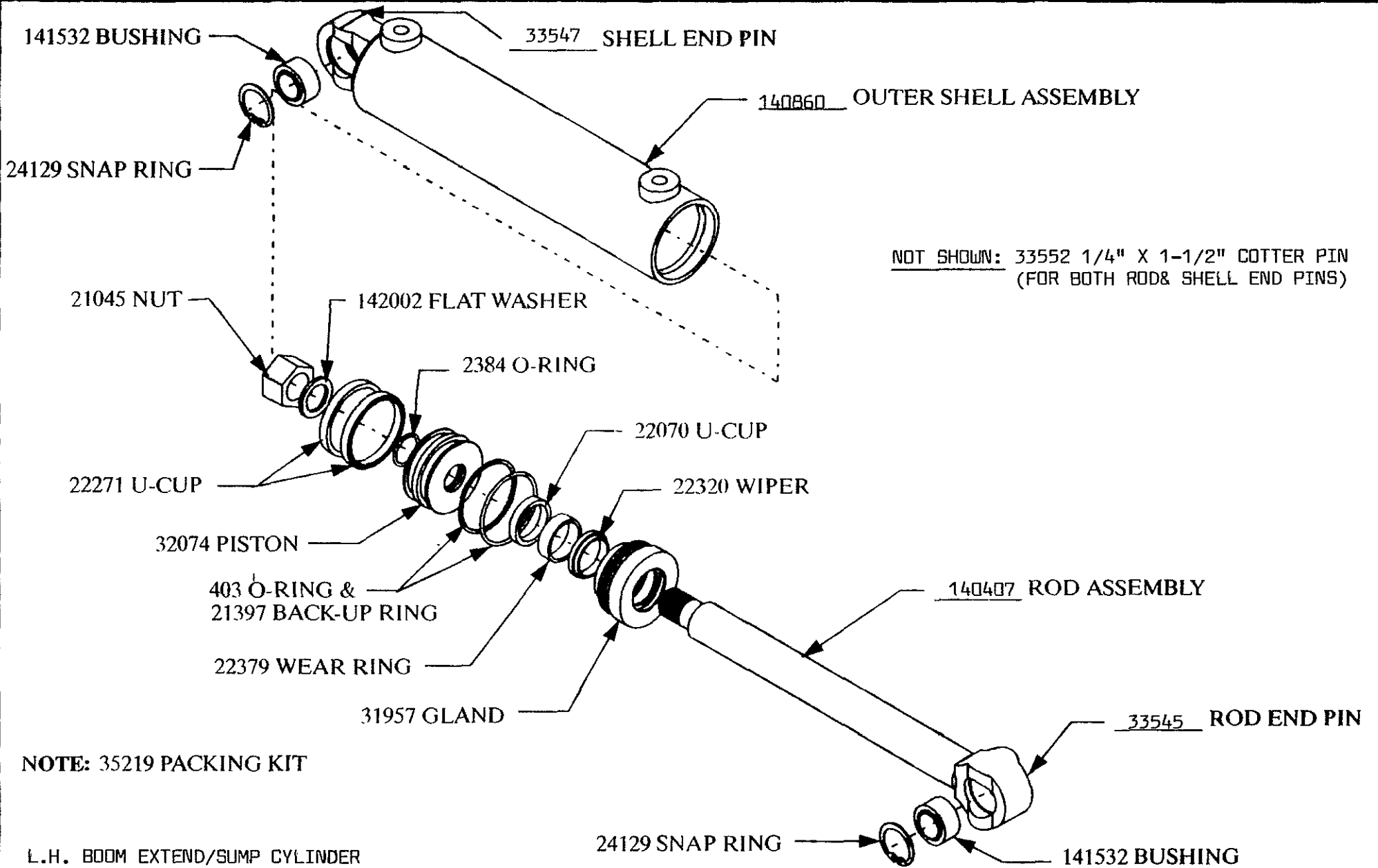
HC-463

56641 HYDRAULIC CYLINDER ASSEMBLY

10/11/84

402 HIGH STREET

HUNTINGTON, W.VA.



L.H. BOOM EXTEND/SUMP CYLINDER

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

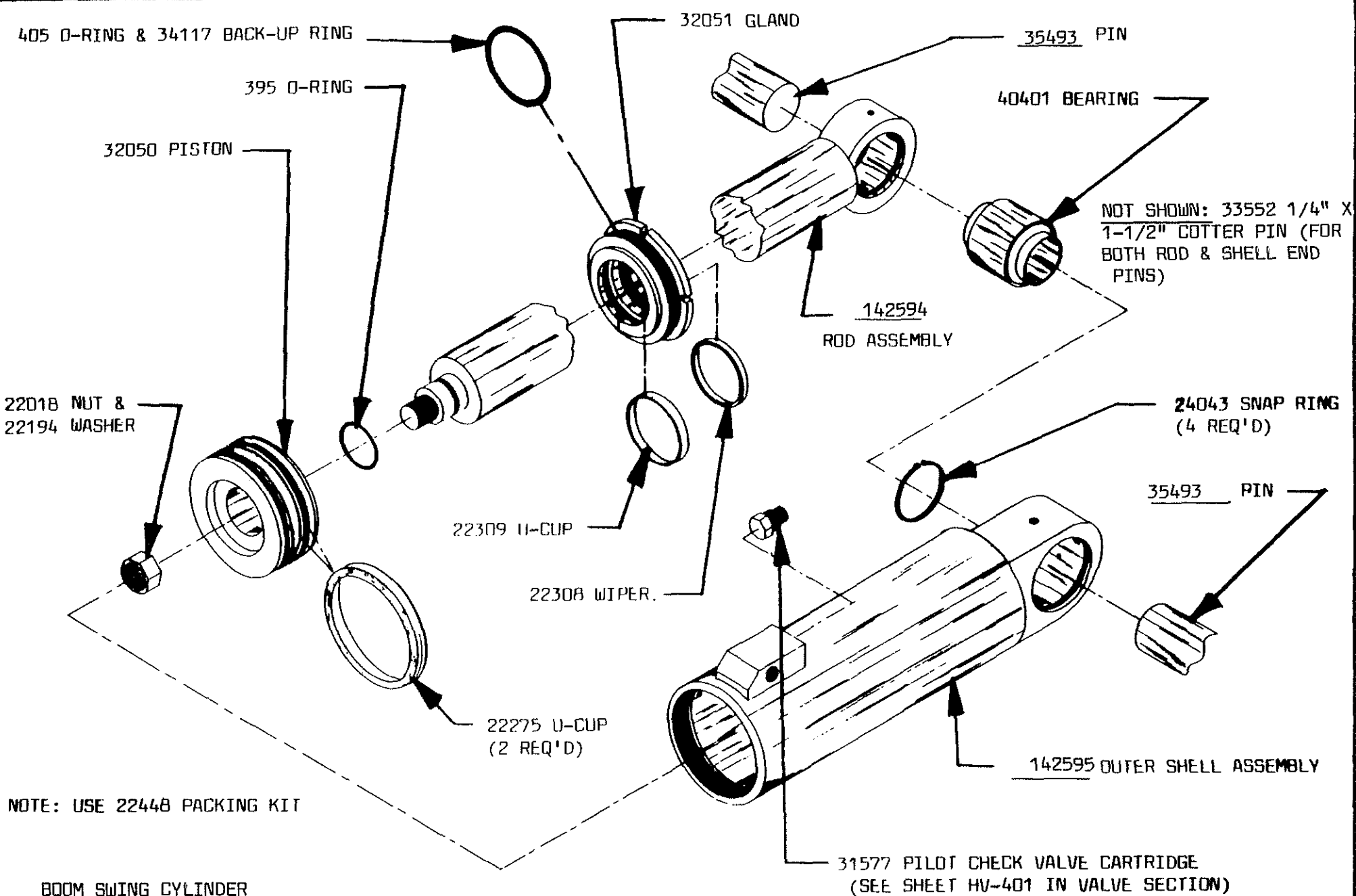
HC-463 A

56642 HYDRAULIC CYLINDER ASSEMBLY

10/11/84

402 HIGH STREET

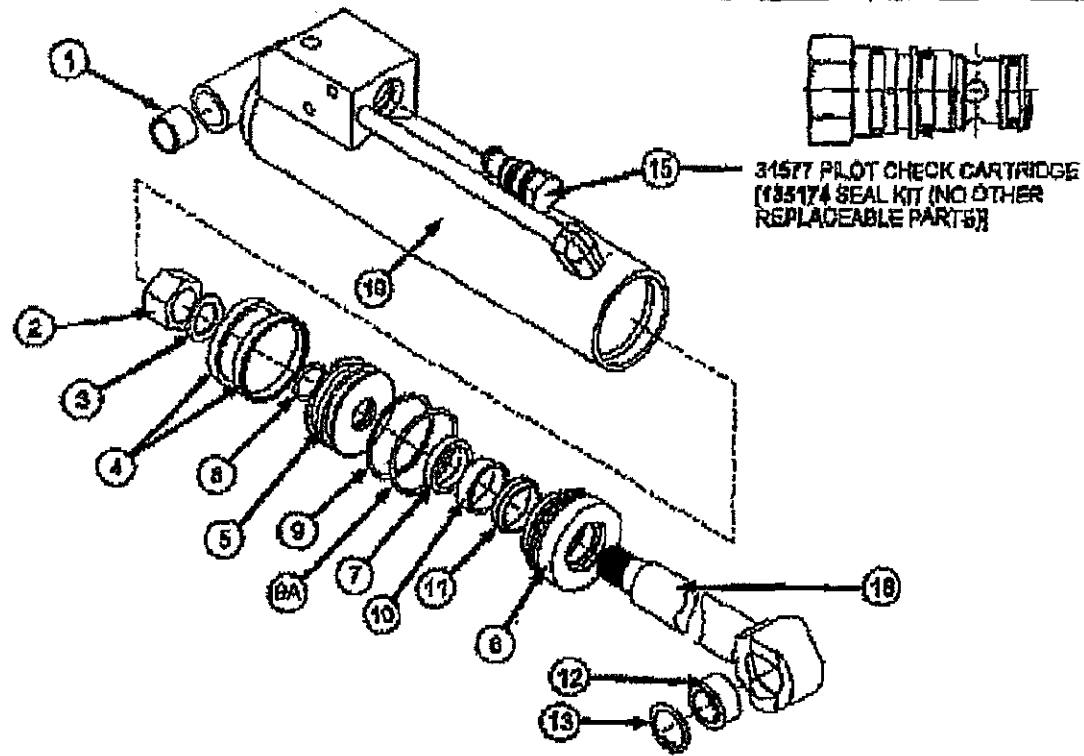
HUNTINGTON, W.VA.



NOTE: USE 22448 PACKING KIT

BOOM SWING CYLINDER

SHEET NO.	TITLE	DATE	R	J. N. FLETCHER & CO.
HC-469C	152244 HYDRAULIC CYLINDER ASSEMBLY	7/8/93		707 WEST 7TH STREET HUNTINGTON, W VA



35219 PACKING KIT

ITEM	DESCRIPTION	PART#	QTY	ITEM	DESCRIPTION	PART#	QTY
1	BUSHING	52	2	10	WEAR RING	22379	1
2	NUT	21045	1	11	WIPER	22320	1
3	WASHER	142002	1	12	BEARING	141532	1
4	U-CUP	22271	2	13	SNAP RING	24129	1
5	PISTON	32094	1	14	GREASE FITTING	20296	1
6	GLAND	31957	1	15	CARTRIDGE	31577	1
7	U-CUP	22270	1	16	ROD ASSEMBLY	140595	1
8	O-RING	21279	1	17	OUTER SHELL ASSEMBLY	142744	1
9	O-RING	403	1	18	ROD PIN		1
9A	BACKUP	21387	1	19	SHELL PIN		1

SHEET NO.

HC-574

TITLE

162978 HYDRAULIC CYLINDER ASSEMBLY

DATE

1-20-00

J. H. FLETCHER & CO.

402 HIGH STREET HUNTINGTON, WV

SHEET NO.

TITLE

DATE

R

J. H. FLETCHER & CO.

HM-86

41842 HYDRAULIC MOTOR

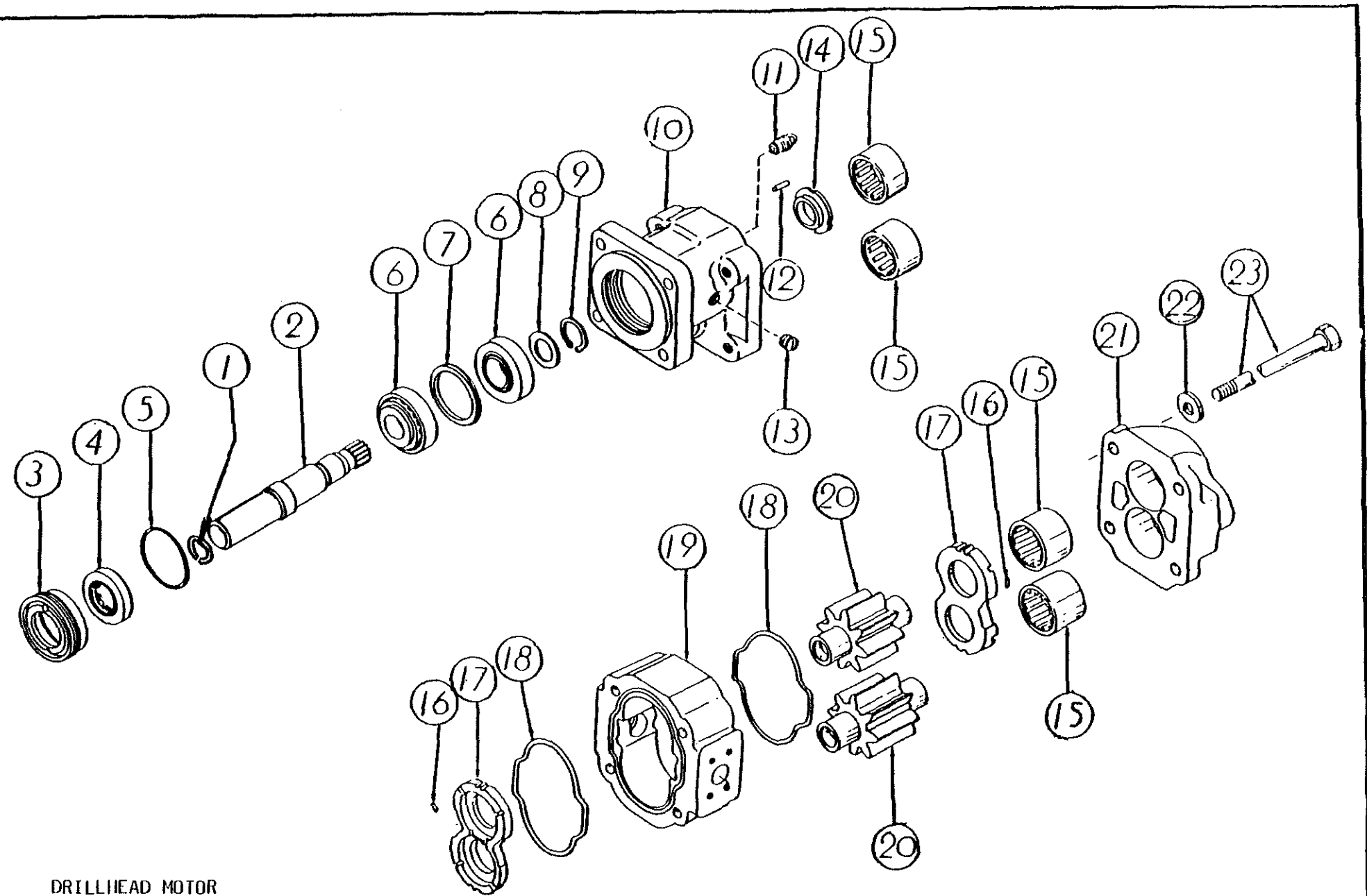
707 WEST 7TH STREET

HUNTINGTON, W. VA.

<u>ITEM</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>NO. REQ'D</u>
1	24037	SNAP RING	1
2.	30588	SHAFT	1
3.	23045	RETAINING RING	1
4.	24250	HI-PRESSURE SEAL	1
5.	402	"O" RING SEAL	1
6.	40008	ROLLER BEARING	2
7.	21504	BEARING SPACER	1
8.	21505 (**)	SPACER	1
9.	1316	SNAP RING	1
10.	47001	SHAFT END COVER	1
11.	23048	CHECK ASSEMBLY	2
12.	30397	ROLL PIN	1
13.	20267	PLUG	1
14.	40255	SHAFT BUSHING	1
15.	40009	NEEDLE BEARING	4
16.	21266	POCKET SEAL	12
17.	23035	THRUST PLATE	2
18.	402	"O" RING SEAL	2
19.	47269	GEAR HOUSING	1
20.	41261	GEAR SET	1
21	47460	PORT END COVER	1
22.	22035	WASHER	4
23.	31754	BOLT	4

(**) IF THIS SPACER DOES NOT ALLOW THE SNAP RING TO FIT THE SLOT USE 21508 SPACER.

NOT SHOWN: 23758 SHAFT KEY



DRILLHEAD MOTOR

SHEET NO.

TITLE

DATE

R

J. H. FLETCHER & CO.

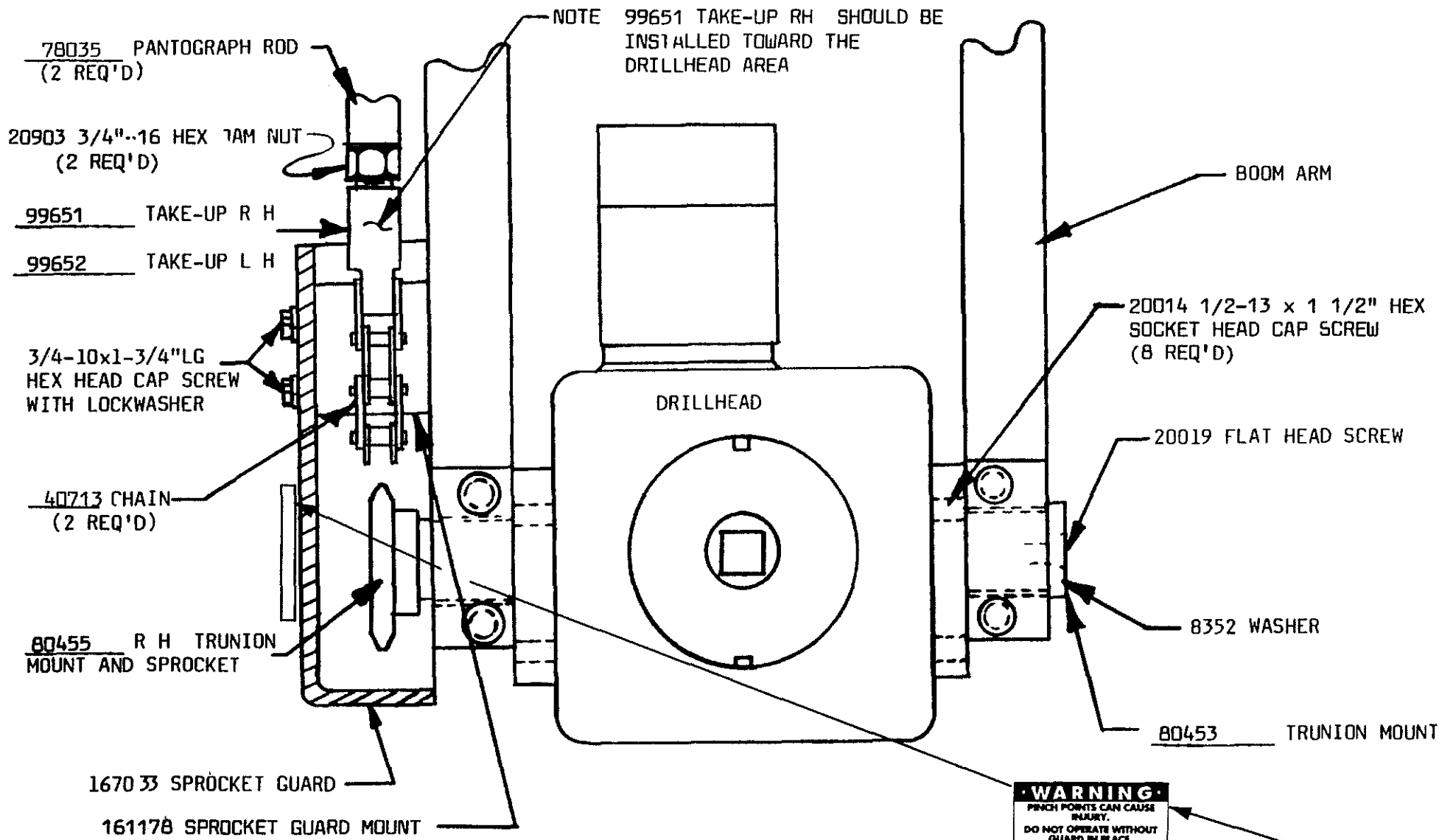
IIM-86

41842 HYDRAULIC MOTOR

4-17-72

707 WEST 7TH STREET

HUNTINGTON, W. VA.



NOTE WHEN IMPACTOR IS USED THE TRUNION MOUNTS ARE WELDED TO THE IMPACTOR BOX

159546 WARNING TAG
(SEE SHEET WS-2)

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

MB-122

DRILLHEAD PIVOT ARRANGEMENT

402 HIGH STREET

HUNTINGTON, W.VA.

SHEET NO.

MB-393A

TITLE

BOOM ROLLER GUIDE ARRANGEMENT

DATE

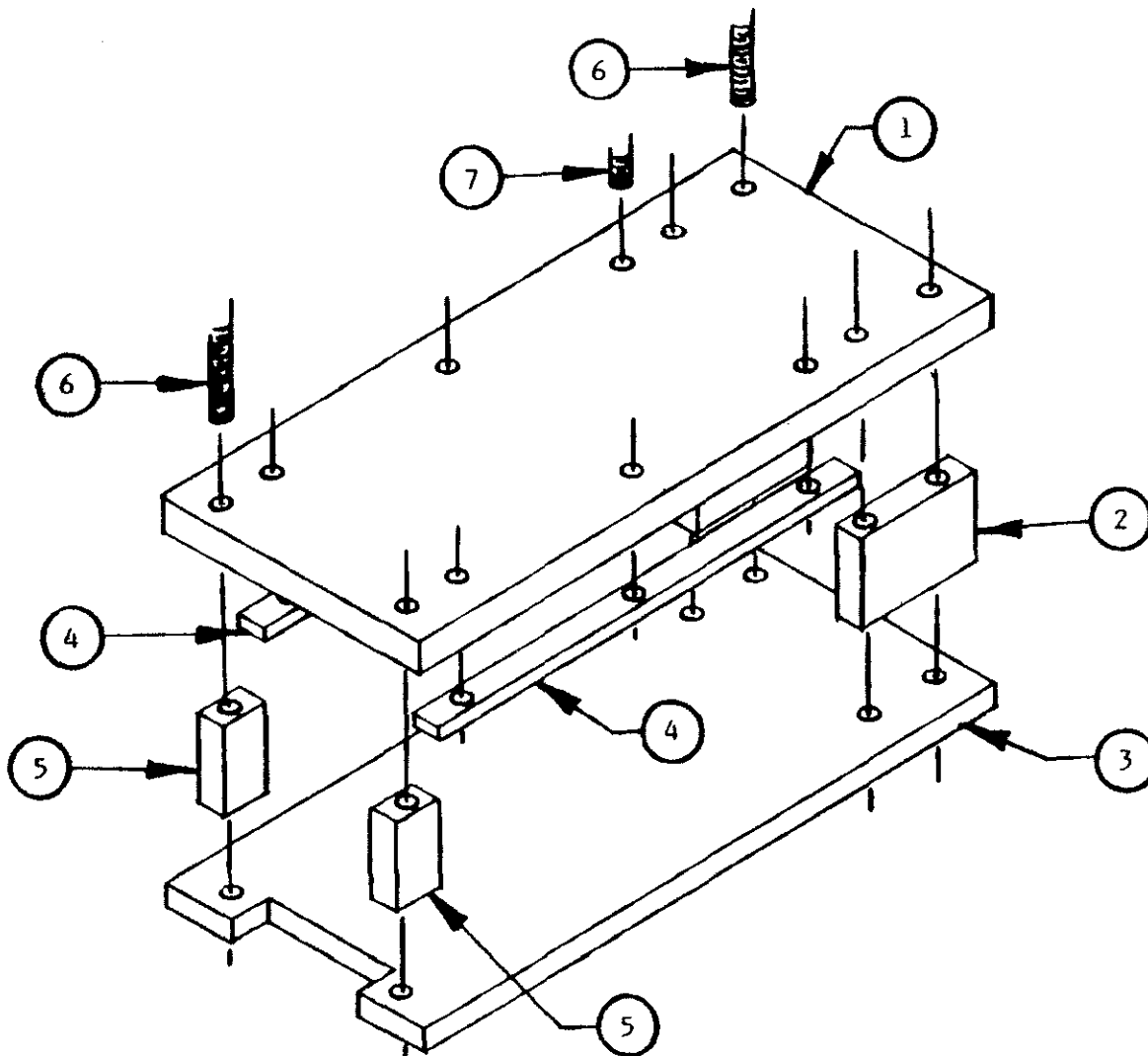
7/11/84

J.H. FLETCHER & CO.

402 HIGH STREET

HUNTINGTON, W.VA.

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>NO. REQ'D</u>
1	TOP PLATE ASSEMBLY	94007	1
2	MOUNTING BLOCK ASSEMBLY	82904	2
3	BOTTOM PLATE ASSEMBLY	94008	1
4	GUIDE BAR ASSEMBLY	94009	2
5	MOUNTING BLOCK ASSEMBLY	82905	2
6	ALLEN HD. CAP SCREW (5/8"-11 X 5-1/2")	20228	6
7	ALLEN HD. CAP SCREW (5/8"-11 X 1-1/2")	20192	4



SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

MB-393

BOOM ROLLER GUIDE ARRANGEMENT

7/11/84

402 HIGH STREET

HUNTINGTON, W.VA.

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

MB-458

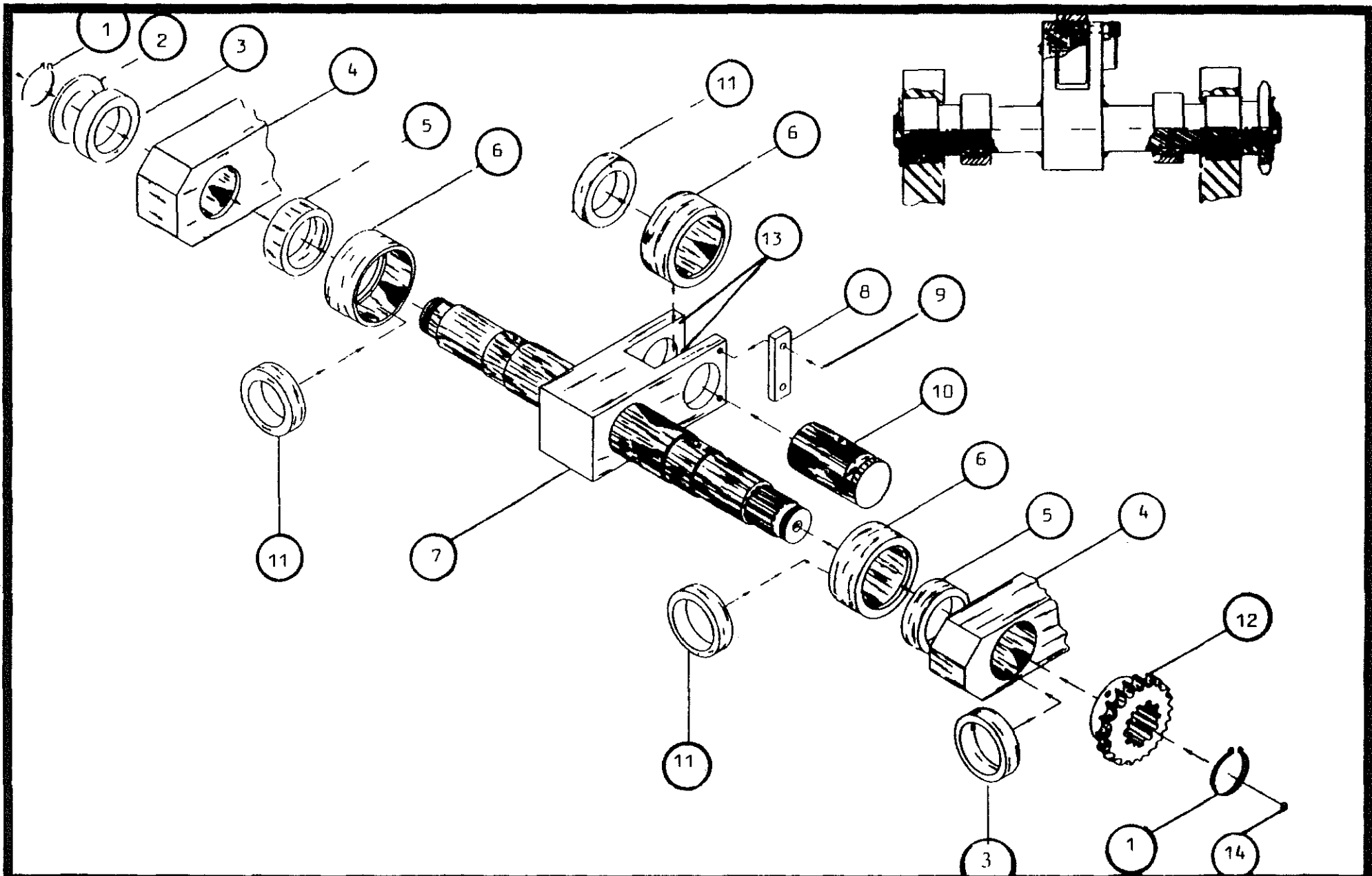
188761 BOOM ROLLER ASSEMBLY

3-2-87

402 HIGH STREET

HUNTINGTON, W.VA.

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>NO. REQ'D</u>
1	SNAP RING	24082	2
2	FLAT WASHER & (2) 20176 1/4"-20X1/2" H.H.C.S.	202049	1
3	BEARING	40156	2
4	BOOM ARM (SEE SHEET MB-476)		2
5	SPACER	21631	2
6	ROLLER	45814	2
7	SHAFT & BLOCK ASSEMBLY	188762	1
8	KEEPER	174025	1
9	3/8"-16 X 7/8" S.H.H.C.S. (NOT SHOWN)	24866	2
10	PIN	33569	1
11	BEARING	40167	3
12	SPROCKET	43209	1
13	SPACER (NOT SHOWN)	21844	2
14	GREASE FITTING	20264	1



SHEET NO.

MB-458

TITLE

188761 BOOM ROLLER ASSEMBLY

DATE

3-2-87

J.H. FLETCHER & CO.

402 HIGH STREET

HUNTINGTON, W.VA.

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

MB-476

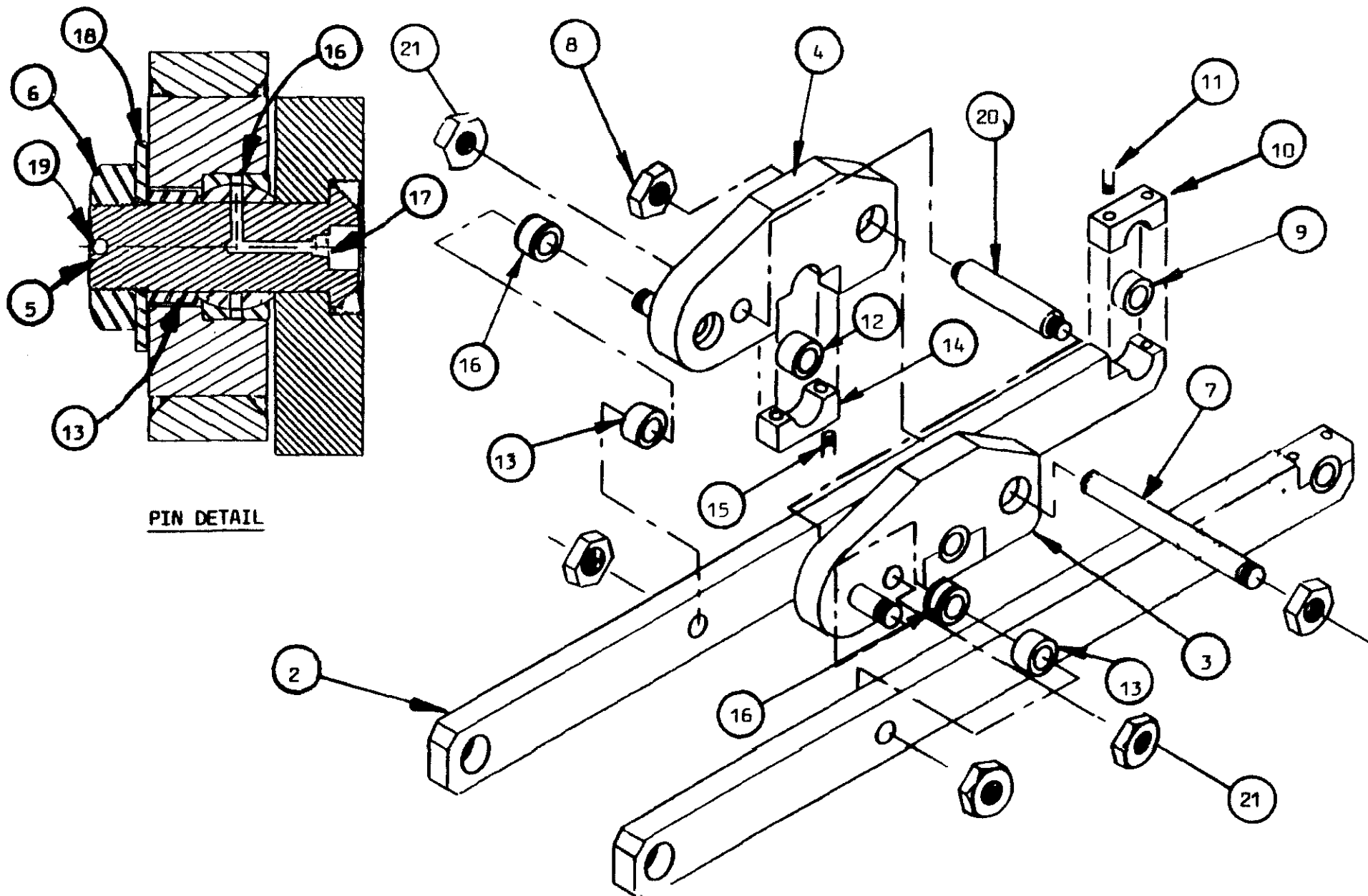
BOOM ARM ARRANGEMENT

5/15/87

402 HIGH STREET

HUNTINGTON, W.VA.

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>NO. REQ'D</u>
1	RIGHT HAND LONG ARM	191010	1
2	LEFT HAND LONG ARM	191009	1
3	RIGHT HAND SHORT ARM	191003	1
4	LEFT HAND SHORT ARM	191005	1
5	SHAFT (PART OF SHORT ARM)	34072	1
6	SLOTTED HEX JAM NUT	21025	1
7	SHAFT	30682	1
8	HEX NUT	20904	2
9	SPLIT BUSHING	40340	2
10	CAP	191012	2
11	SOCKET HEAD CAP SCREW 3/4"-10 X 3"	20161	4
12	BEARING	40007	2
13	SPACER	21901	1
14	CAP	191007	2
15	SOCKET HEAD CAP SCREW 3/4"-10 X 3-1/2"	20145	4
16	BEARING	40155	1
17	1/8" GREASE FITTING	20264	2
18	WASHER	22196	1
19	1/4" X 3" COTTER PIN	30443	2
20	SHAFT	46346	1
21	NUT	20854	2



PIN DETAIL

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

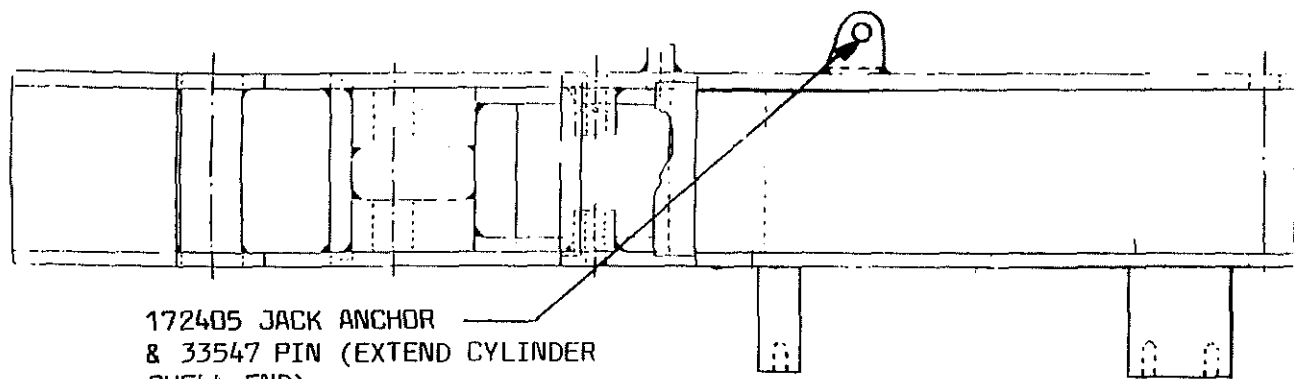
MB-476

BOOM ARM ARRANGEMENT

2-10-88

402 HIGH STREET

HUNTINGTON, W.VA.



172405 JACK ANCHOR
& 33547 PIN (EXTEND CYLINDER
SHELL END)

191903 WEAR BAR, 23557
H.S.S. 3/4"-10x1-1/2"
& 20989 3/4"-10 JAM NUT

30682 SHAFT, 20904
NUT & 40155 BEARING

20264 1/8"
GREASE FITTING

35667 PIN
(BOOM FOOT
CYL. PIN SHELL
END)

BOOM ROLLER GUIDE ASSEMBLY
(SEE SHEET MB-393)

45838 ROLLER, 35659
BOOM FOOT PIVOT PIN
& 20854 NUT

20264 1/8"
GREASE FITTING

35658 PIN (DRILL FEED ROD END)
& 24073 SNAP RING

190893 ANCHOR ASSEMBLY

194008 WEAR BAR ASSEMBLY

SHEET NO.

TITLE

DATE

R

MB-558B

232249 OUTER BOOM ASSEMBLY (AS SHOWN)
232250 OUTER BOOM ASSEMBLY (OPP HAND)

10/27/93

J. N. FLETCHER, & CO.

707 WEST 7TH STREET

HUNTINGTON, W VA

DRAFT NO.

MB-601

TITLE

229859 L.H. INNER BOOM ASSEMBLY (AS SHOWN)
 229860 R.H. INNER BOOM ASSEMBLY (OPP. HAND)

DATE

2/2/93

R

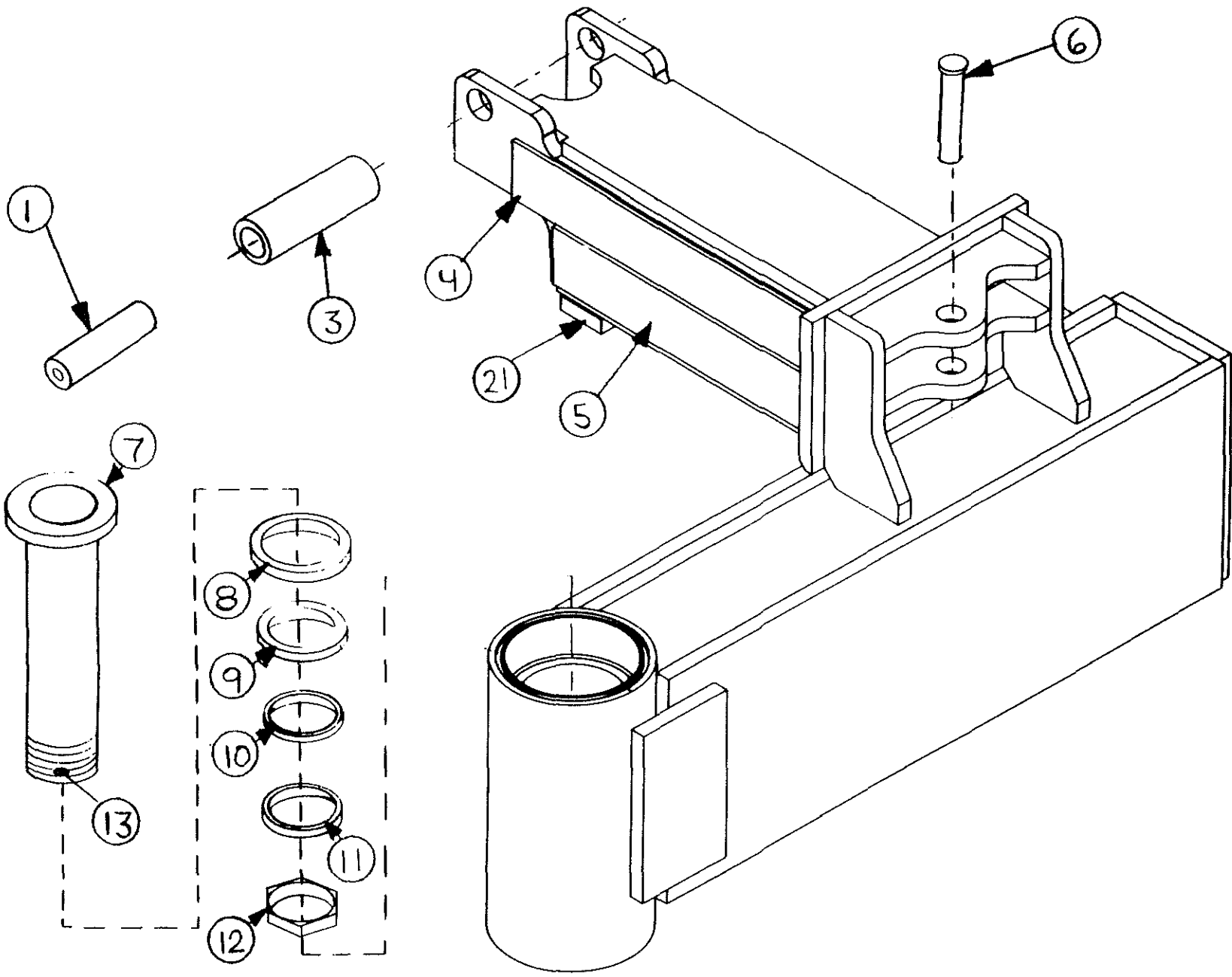
J. H. FLETCHER & CO.
 707 WEST 7TH STREET HUNTINGTON W VA

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>NO. REQ'D</u>
1.	PIN ASSEMBLY	33333	1
3.	ROLLER ASSEMBLY	45839	1
4.	WEAR STRIP (TOP)	191911	1
5.	WEAR STRIP (BOTTOM)	191912	1
6.	BOOM SWING CYLINDER PIN ASSEMBLY (SHELL END)	35943	1
* 7.	BOOM PIVOT PIN	46341	1
** 8.	1/4" SQ. X 19-1/2" FELT	22499	2
9.	BEARING CUP	40059	2
** 10.	BEARING CONE	40060	2
** 11.	SPACER	21919	1
** 12.	2-3/4"-12 HEX NUT	20808	1
** 13.	3/8" X 4" COTTER PIN	35484	1
(**)* 14.	BOOM SLUMP/EXTEND CYLINDER PIN ASSEMBLY (ROD END)	33545	1
* 15.	1/8" GREASE FITTING	20264	1
* 16.	DOCK BUMPER	45427	1
* 17.	3/4"-10 X 3" HEX HEAD CAP SCREW	20100	1
* 18.	3/4"-10 HEX NUT	20758	1
* 19.	3/4" LOCKWASHER	22022	1
21.	WEAR STRIP	194008	1

* INDICATES ITEMS NOT SHOWN

** INDICATES ITEMS NOT PART OF ASSEMBLY

C & B BLUEPRINT 78319 FORM # 5039



SHEET NO.

MB-601

TITLE

229859 L.H. INNER BOOM ASSEMBLY (AS SHOWN)
 229860 R.H. INNER BOOM ASSEMBLY (OPP. HAND)

DATE

2/2/93

R

J. N. FLETCHER & CO.

707 WEST 7TH STREET

HUNTINGTON, W. VA

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

MM-72

DRILLHEAD ASSEMBLY

10/1/85

402 HIGH STREET

HUNTINGTON, W.VA.

ITEM	DESCRIPTION	PART NO.	NO. REQ'D	ITEM	DESCRIPTION	PART NO.	NO. REQ'D
1	Δ * SEAL	24393	1	26	1/8" NPT GREASE FTG.	20264	2
2	Δ * SPEEDI SLEEVE	24395	1	27	TOP COVER	94376	1
3	3/8"-16x3/4" S.H.C.S.	20186	12	28	FLINGER	161022	1
4	3/8" LOCKWASHER	22046	12	29	SOCKET	172512	1
5	DRILLHEAD BOX	94346	1	31	Δ * SEAL	24393	1
6	Δ * BEARING	45464	1	32	Δ * SPACER	63905	1
7	RING GEAR & PINION SET	41268	1	33	Δ * SPACER	60996	1
8	Δ SOCKET SHAFT	181350	1	34	Δ * SNAP RING	24037	1
9	3/8"-24x3/4" H.H.C.S.	20026	10	35	DRILLHEAD MOTOR (SEE SHEET HM- <u>89</u>)	<u>41842</u>	1
10	3/8" LOCKWASHER	22010	10	36	GREASE RING	121508	1
11	1" NPT FLUSH PIPE PLUG	32627	3				
12	Δ SEAL ADAPTOR RING	181397	1				
13	Δ SEAL RETAINER KIT	35052	1				
14	Δ 1/2"-13 X 1" S.H.C.S.	20163	4				
15	Δ 1/2" LOCKWSHER	22046	4				
16	3/4" NPT SQUARE SOCKET PLUG	32606	1				
17	Δ BOTTOM COVER ASS'Y	181349	1				
18	Δ * DUST HOSE NIPPLE	20352	1				
19	3/4" FLUSH GREASE FITTING	20548	1				
20	1"X3/4" NPT HEX. PIPE BUSHING	20546	1				
21	Δ * SEAL KIT	35050	1				
22	Δ * O-RING	35327	1				
23	Δ * BEARING	2501	1				
24	Δ THRUST BEARING	40217	1				
25	3/8" FLUSH GREASE FITTING	18318	1				

NOTES: #32 & #33 SPACERS NOT SHOWN -USED FOR HYDRAULIC MOTOR.

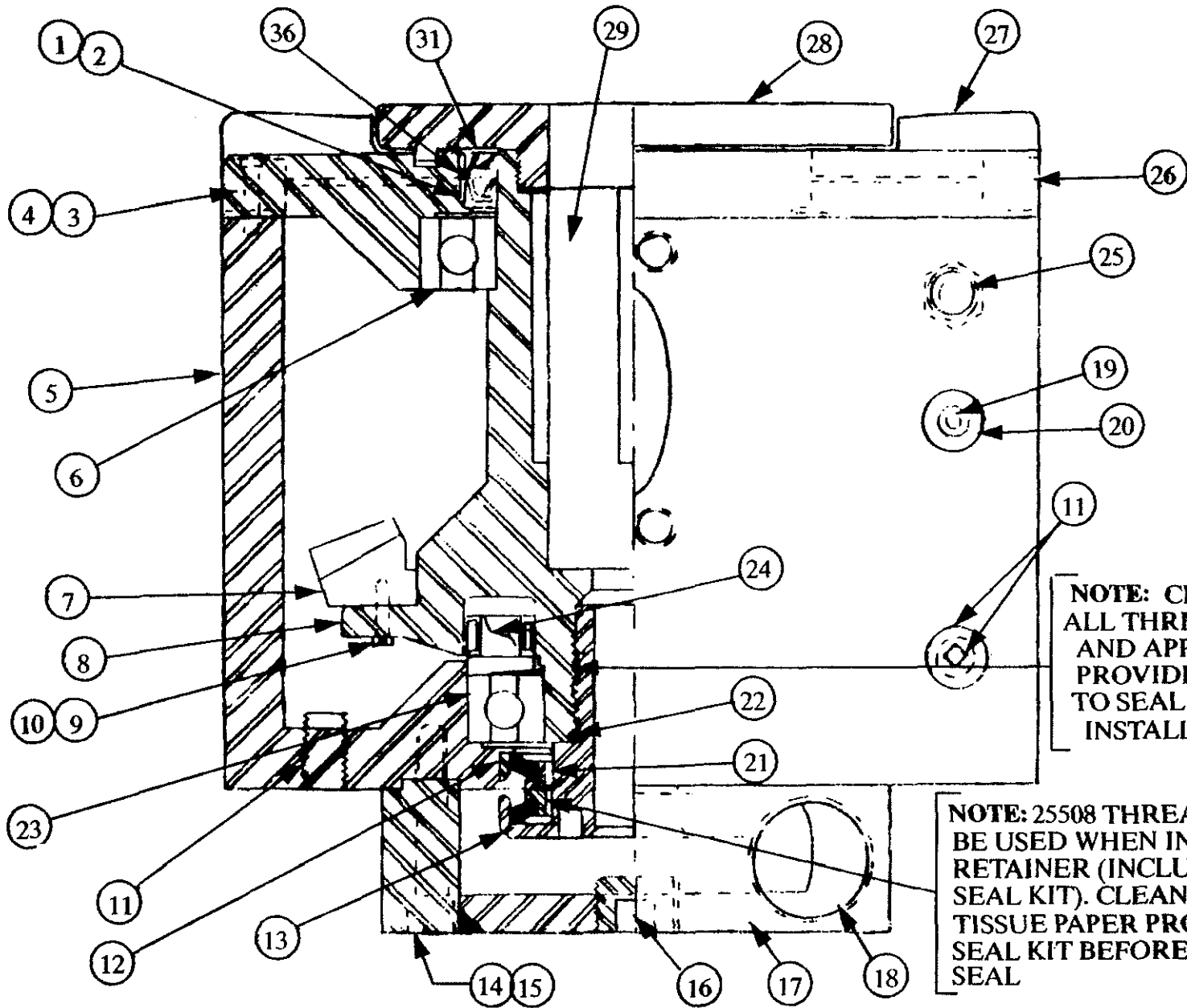
*INDICATES PARTS INCLUDED IN 55647 REBUILD KIT

Δ INDICATES PARTS INCLUDED IN 55646 CONVERSION KIT (CONVERTS OLD DRILLHEAD TO NEW DRILLHEAD)

55634 DRILLHEAD ASSEMBLY ONLY

55648 DRILLHEAD ASSEMBLY WITH MOTOR

ORDER 55900 WATER DRILLHEAD CONVERSION KIT TO CONVERT A CAT SEAL DEEP SOCKET DRILLHEAD TO A WET DRILLHEAD (DEUBLIN UNION TYPE).



NOTE: CLEAN OIL FROM ALL THREADED SURFACES AND APPLY LOCTITE PROVIDED W/ SEAL KIT TO SEAL RETAINER WHEN INSTALLING

NOTE: 25508 THREAD LOCKER MUST BE USED WHEN INSTALLING SEAL RETAINER (INCLUDED IN 35050 SEAL KIT). CLEAN SURFACES WITH TISSUE PAPER PROVIDED WITH SEAL KIT BEFORE INSTALLING SEAL

SHEET NO.

TITLE

DATE

J.H. FLETCHER & CO.

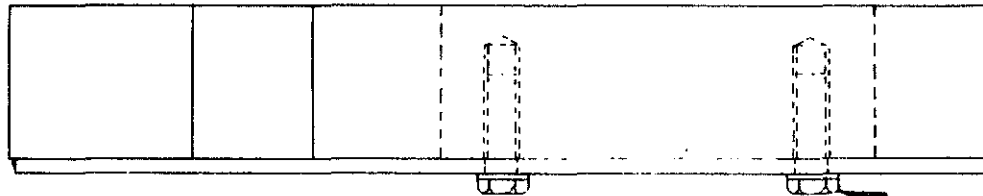
MM-72

DRILLHEAD ASSEMBLY

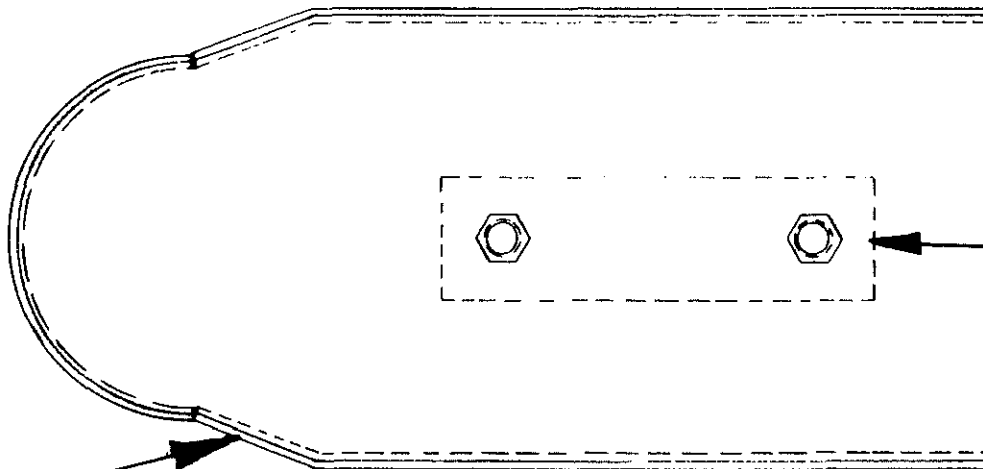
10/1/85

402 HIGH STREET

HUNTINGTON, W.VA.



3/4"-10 X 1-3/4" LG.
HEX HEAD CAP SCREW
3/4" LOCKWASHER
(2 REQ'D EACH)



161178 MOUNT

167033 GUARD

SHEET NO.

MY-402

TITLE

PANTOGRAPH SPROCKET GUARD

DATE

12/10/79

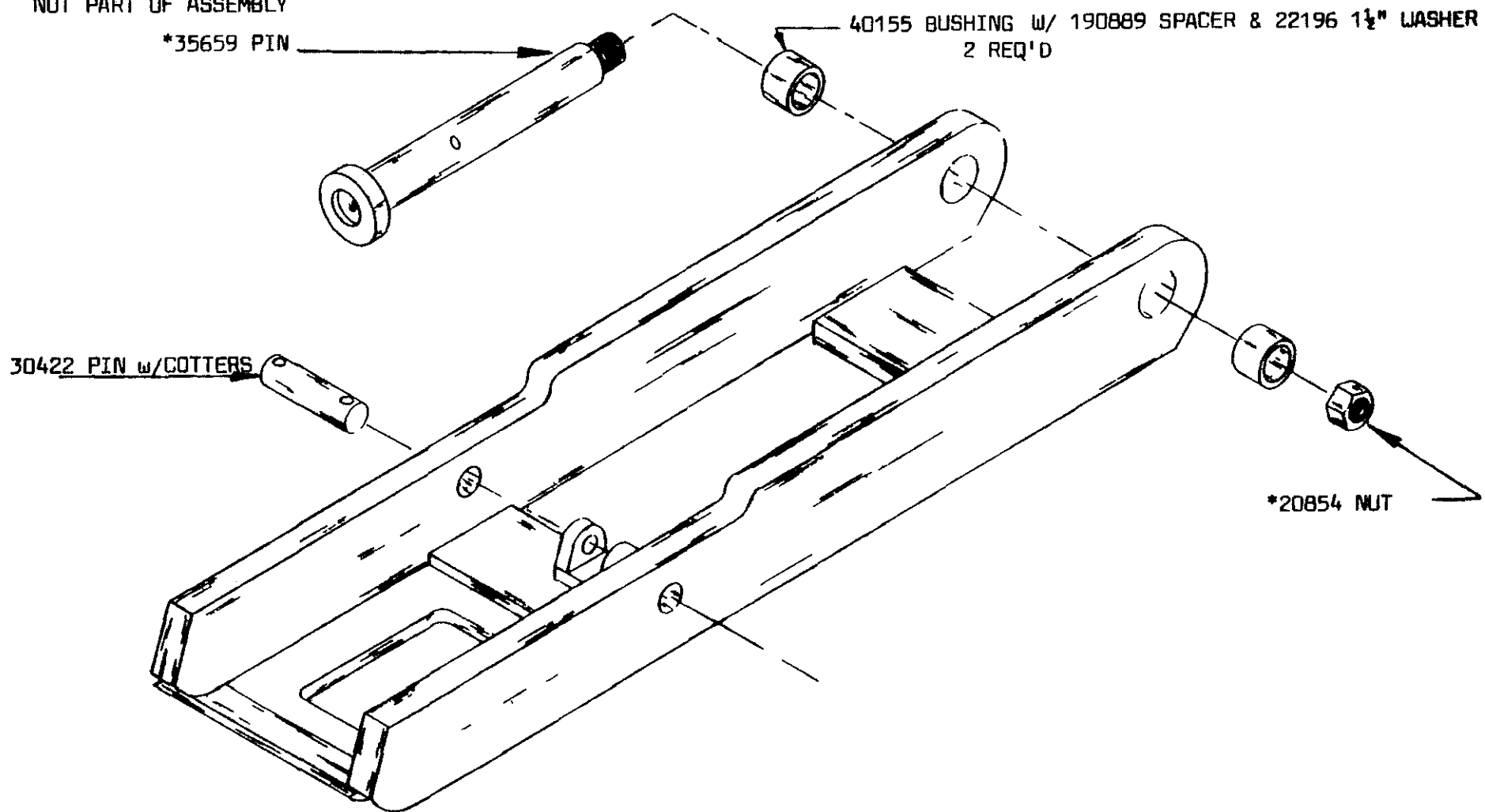
R

J. N. FLETCHER & CO.

707 WEST 7TH STREET

HUNTINGTON, W. VA.

NOTE * INDICATES PARTS
NOT PART OF ASSEMBLY



SHEET NO.

MY-635

TITLE

20211B BOOM FOOT ASSEMBLY

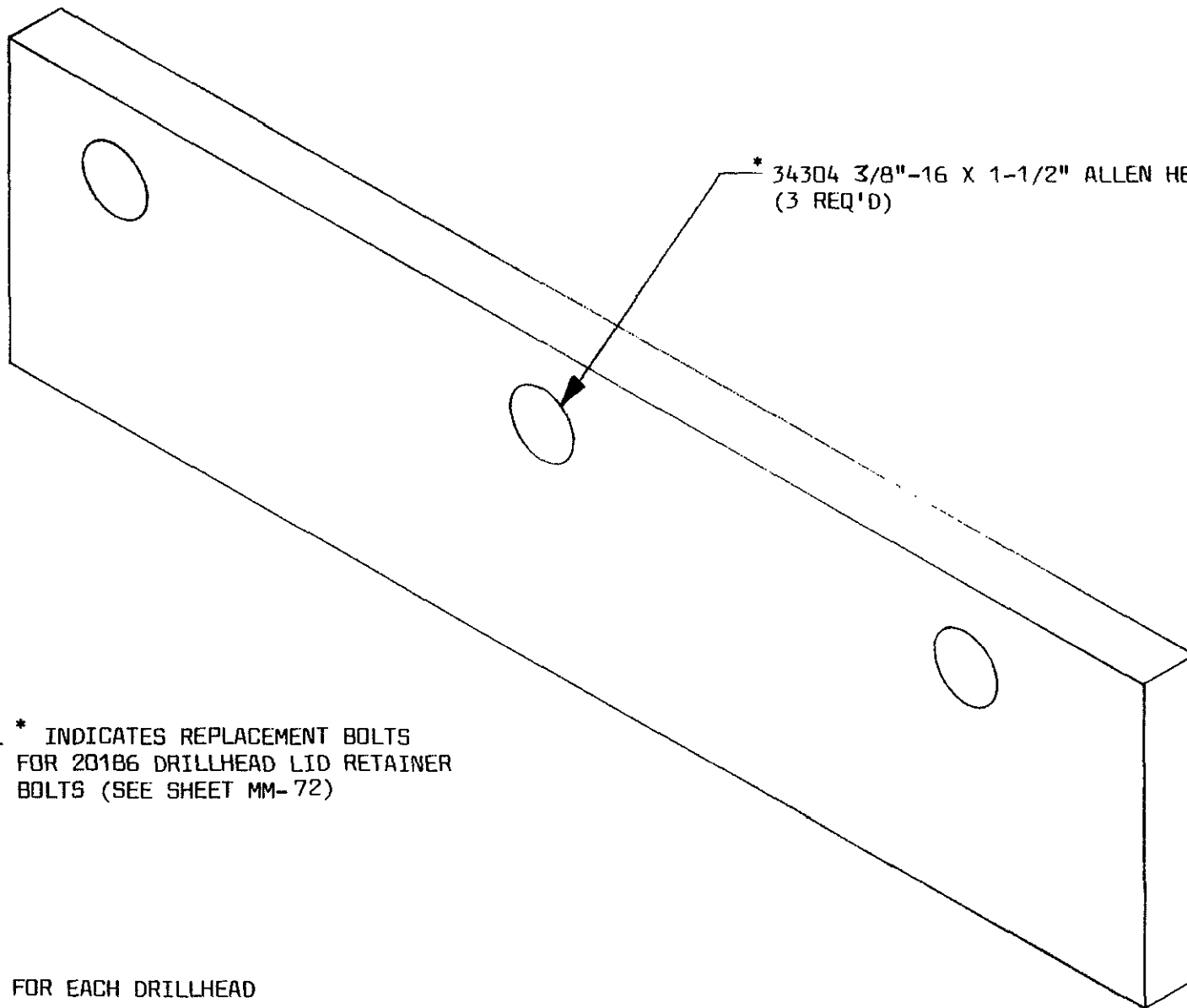
DATE

4-24-87

J.H. FLETCHER & CO.

402 HIGH STREET

HUNTINGTON, W.VA.



NOTE: * INDICATES REPLACEMENT BOLTS
FOR 20186 DRILLHEAD LID RETAINER
BOLTS (SEE SHEET MM-72)

2 REQ'D FOR EACH DRILLHEAD

SHEET NO.

MY-1008

TITLE

160815 HOSE RETAINER FOR DRILLHEAD LID

DATE

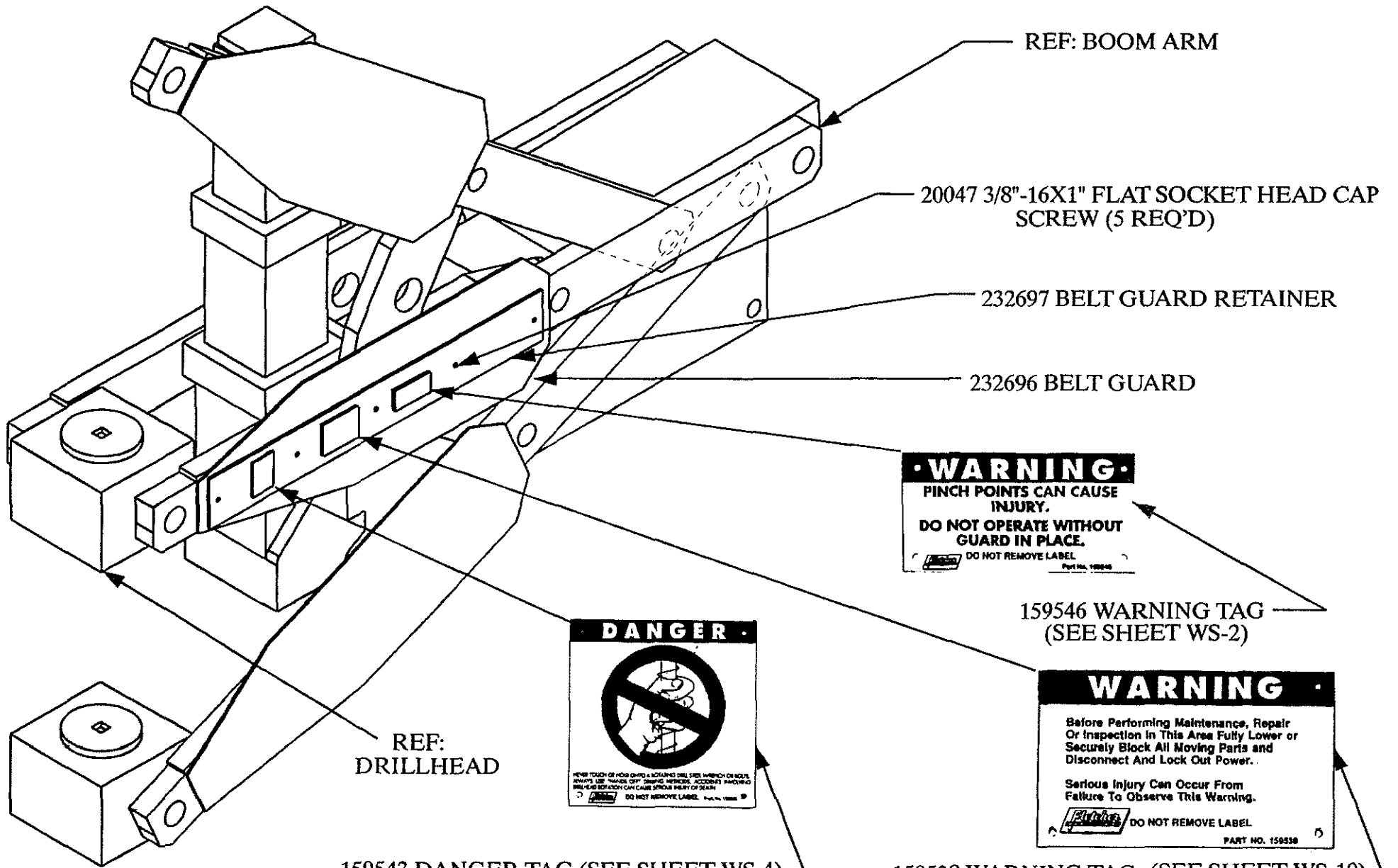
4-13-93

R

J. H. FLETCHER & CO.

707 WEST 7TH STREET

HUNTINGTON, W. VA.



SHEET NO.

MY-1085

TITLE

BELT GUARD & TAG ARRANGEMENT

DATE

3/8/94

J.H. FLETCHER & CO.

402 HIGH STREET

HUNTINGTON, W.VA.