

CONVENTIONAL MOUNTED
TINE HARROWS

VS. FIELD-MASTER NEW
MOUNTED ACTIVE HARROWS

STRAW COLLECTS IN TINES UNTIL THE TINES
PLUG UP THEN THEY RELEASE LARGE
UNWANTED PILES OF STRAW.

BECAUSE OF ITS TURNING ACTION OUR
ACTIVE HARROW IS SELF-CLEANING.
RESULT: NO PILING

TINE HARROWS LEAVE RIDGES IN THE SOIL
CAUSING EASIER WATER EROSION AND
LEAVES MORE SOIL EXPOSED TO WEATHER
CONDITIONS.

ACTIVE HARROWS HAVE FORMED PINS THAT
ROTATE THROUGH THE SOIL LEAVING A
MORE LEVEL SOIL SURFACE.
RESULT: LESS WATER EROSION

TINE HARROWS DRAG THE STRAW RELEASING
ITS CONNECTION FROM THE SOIL CAUSING
EASIER WIND EROSION.

ACTIVE HARROWS MIX AND PEG STUBBLE
TO THE SOIL SURFACE.
RESULT: LESS WIND EROSION

TINE HARROWS ARE DRAGGED OVER THE SOIL
BREAKING UP SMALL LUMPS.(PULVERIZING)

THE FORMED PINS ON ACTIVE HARROWS
TEND TO PACK THE SOIL PROMOTING
FORMATION OF SMALL CLUMPS.
RESULT: NO PULVERIZING

THE DRAGGING OF TINE HARROWS CAUSE
FRICTION CREATING QUICKER WEAR AND TEAR.

THE FORMED PINS ON ACTIVE HARROWS
TURN WITH A SIDEWAYS MOTION.
RESULT: LESS WEAR AND TEAR

HERE ARE 10 GOOD REASON WHY YOU THE SOIL CONSERVATIVE FARMER SHOULD PURCHASE FIELD-
MASTER MOUNTED ACTIVE HARROWS.

Table 4. Active Harrow Drum & Overbrace Assembly Parts List

Item No.	Part No.	Description
1	B5C0840	1/2"x2-1/2" UNC Gr. 5 Bolt
2	FW08P	1/2" Flat Washer
3	60034	Harrow Scraper
4	92083	1-1/4" Bearing
		1-1/4" Lock Collar
5		Active Harrow Overbrace
6	LNC08	1/2" UNC Lock Nut
7		Active Harrow Drum

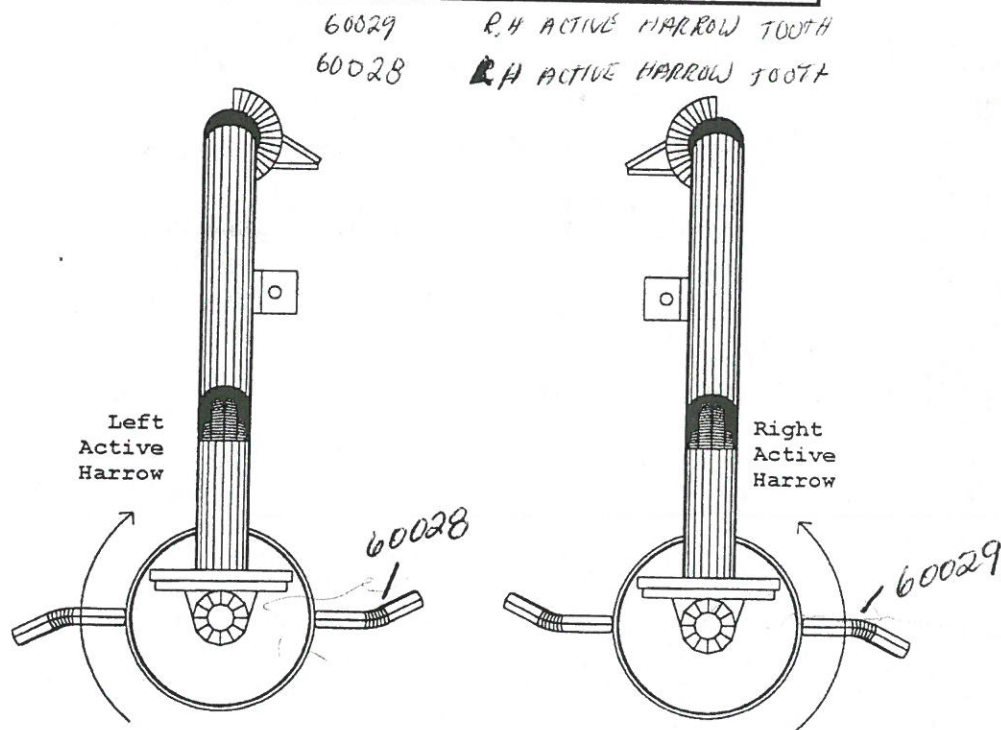


Figure 12. Overbrace & Active Harrow View From Leading Edge

The scraper, item #3, is used to scrape the side of the Active harrow drum free of dirt and plant material. It may be positioned closer or further away from the drum depending on field conditions.

Table 3. Two foot Mounting Bracket & Overbrace Parts List

Item No.	Part No.	Description
1	B5C1232	3/4"x2" UNC Gr. 5 Bolt
2	60102	2FT Mounting Bracket
3	B5C16120P	1"x7-1/2" UNC Gr. 5 Bolt
4	FW16P	1" Flat Washer
5	60100	2FT Overbrace
6	FW16P	1" Flat Washer
7	LNC16	1" UNC Locknut

Item #1 is an adjusting bolt to raise the center overbrace for transport position. If the center Active Harrow hits the ground in transport position, raise the adjusting bolt until the Active Harrow clears the surface.

3.2 Overbrace & Active Harrow Drum (Pre-Assembled)

Assembly of the drum and overbrace is straight forward as shown in Figure 11. Note the difference between the left and right bearings. The difference is the location of the grease zerk. Both zerks should be pointing behind the Active Harrow for easier lubrication.

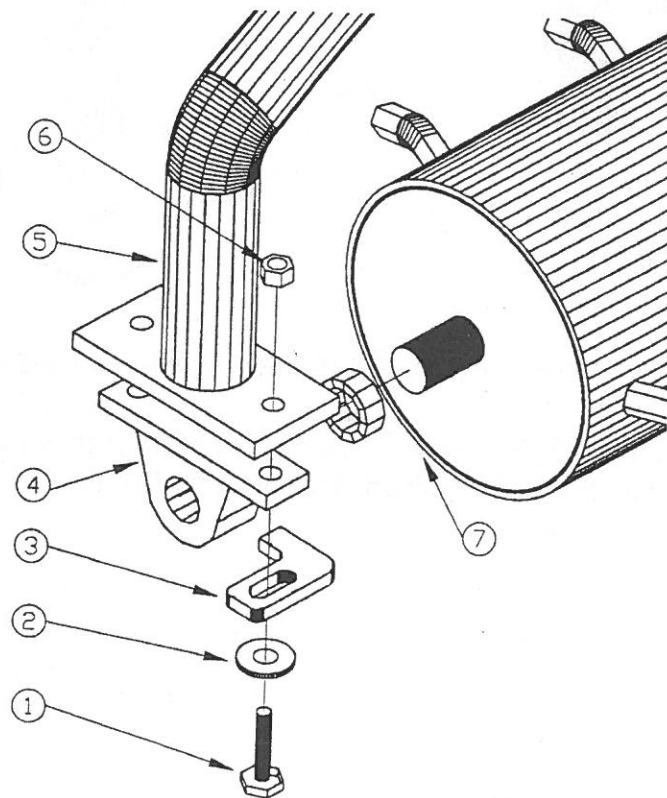


Figure 11. Active Harrow Drum & Overbrace Assembly

Table 2. Mounting Bracket & Overbrace Parts List

Item No.	Part No.	Description
1	B5C0856P	3/8" x 3-1/2" UNC Gr. 5 Bolt
2	60032	Block Stop Bracket
3	60035	4ft Overbrace 62"
	60016	5ft Overbrace 74"
	60227	6ft Overbrace 87"
4	B5C0632P	3/8" x 2" UNC Gr. 5 Bolt
5	60030	Rub Wear Block
6	B5C0880P	1/2" x 5" UNC Gr. 5 Bolt
7	60224	Left A.H. Mounting Bracket
	60225	Right A.H. Mounting Bracket
8	LNC08	1/2" UNC Lock Nut
9	LNC08	1/2" UNC Lock Nut
10	60033	Rub Moving Block
11	LNC06	3/8" UNC Lock Nut
12	FW06P	3/8" Flat Washer
13	92081	2" O.D. x 9/16" I.D. Flat Washer
Not Shown	60230	Eyebolt & Link Chain
Not Shown	LNC08	1/2" UNC Lock Nut

600

The two foot centre overbrace and mounting bracket are shown in Figure 10. The mounting bracket and overbrace can be assembled incorrectly easily but mounted on the subframe only one way as shown.

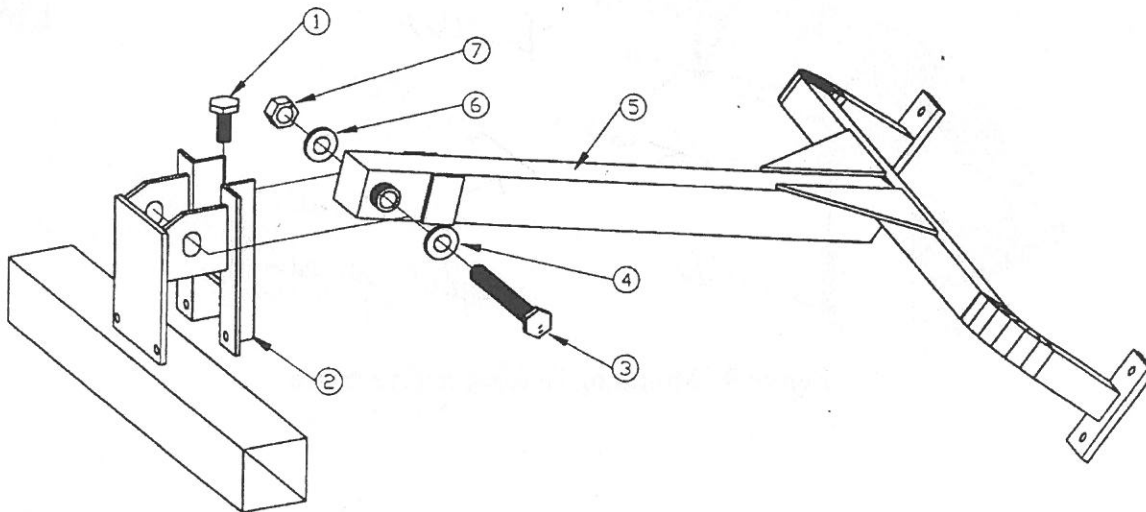


Figure 10. Two foot Mounting Bracket & Overbrace

3. Assembly Instructions

Most of the Active Harrow is pre-assembled to avoid confusion of the left and right mounting brackets and harrows. The following three sections need only to be referred to when requesting parts.

3.1 Overbrace & Mounting Brackets (Pre-Assembled)

Figure 9 shows how the overbrace and mounting bracket are assembled. The overbrace (Item #3) needs to be oriented downward to hit the mounting bracket when in transport position. Items #5 and #10 need to be placed correctly. Item #5 mounts on the long arm side of the mounting bracket and item #10 mounts on the short arm side of the mounting bracket.

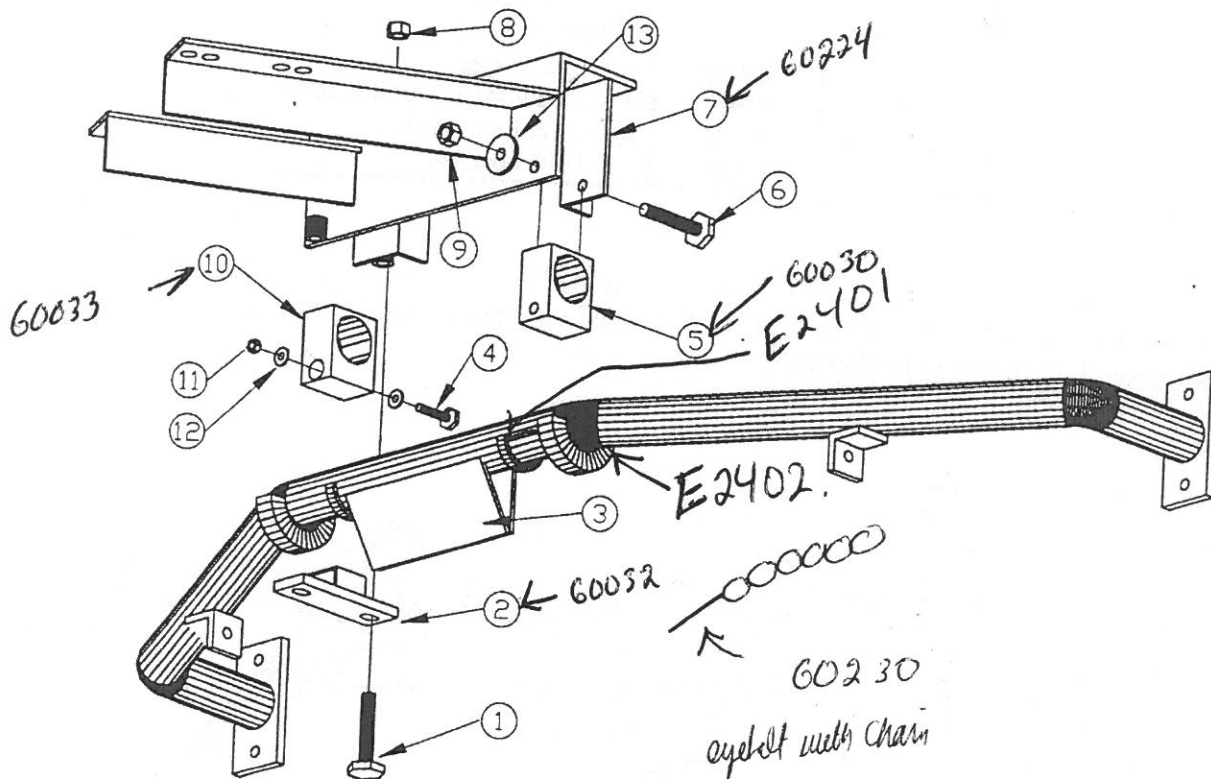
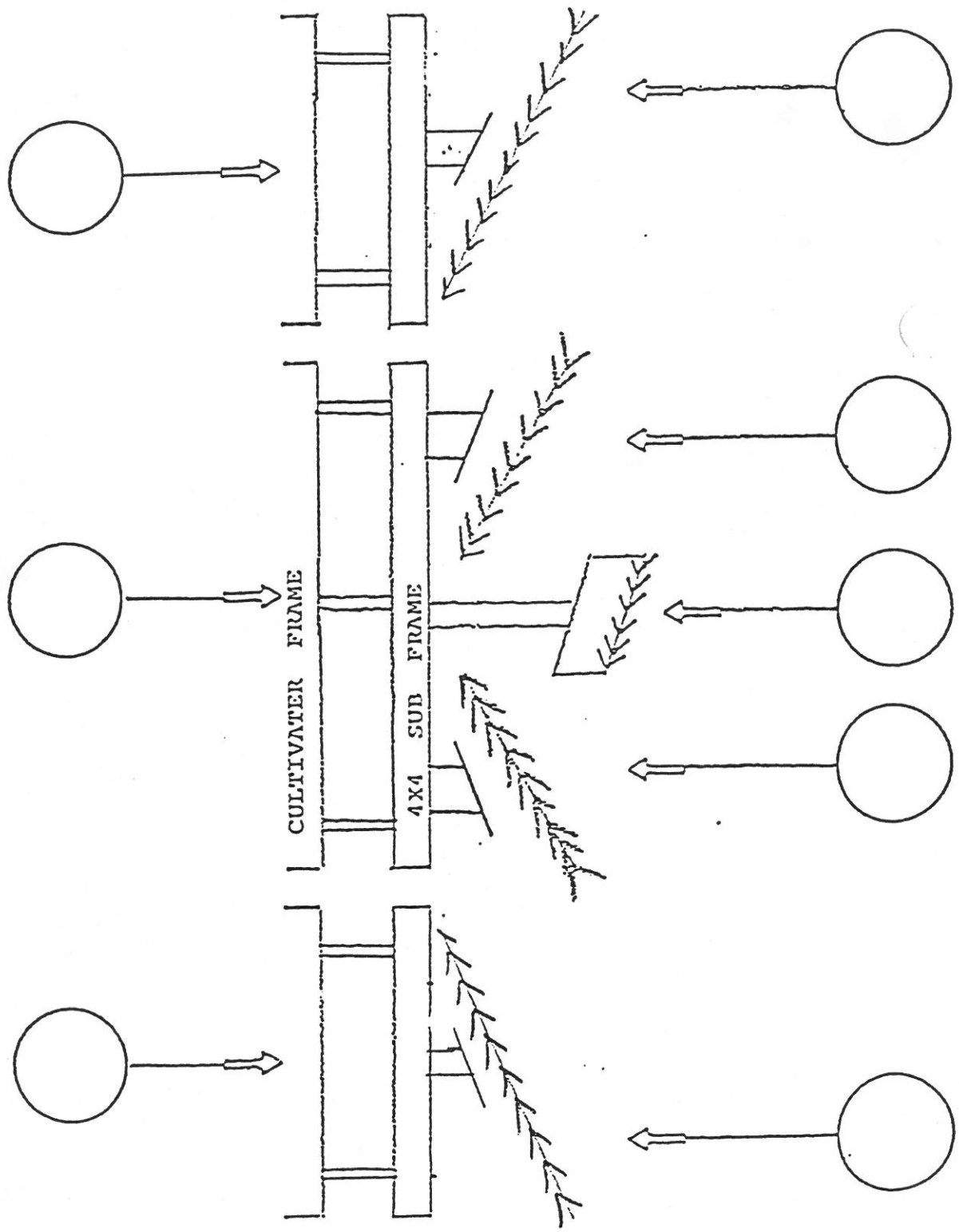
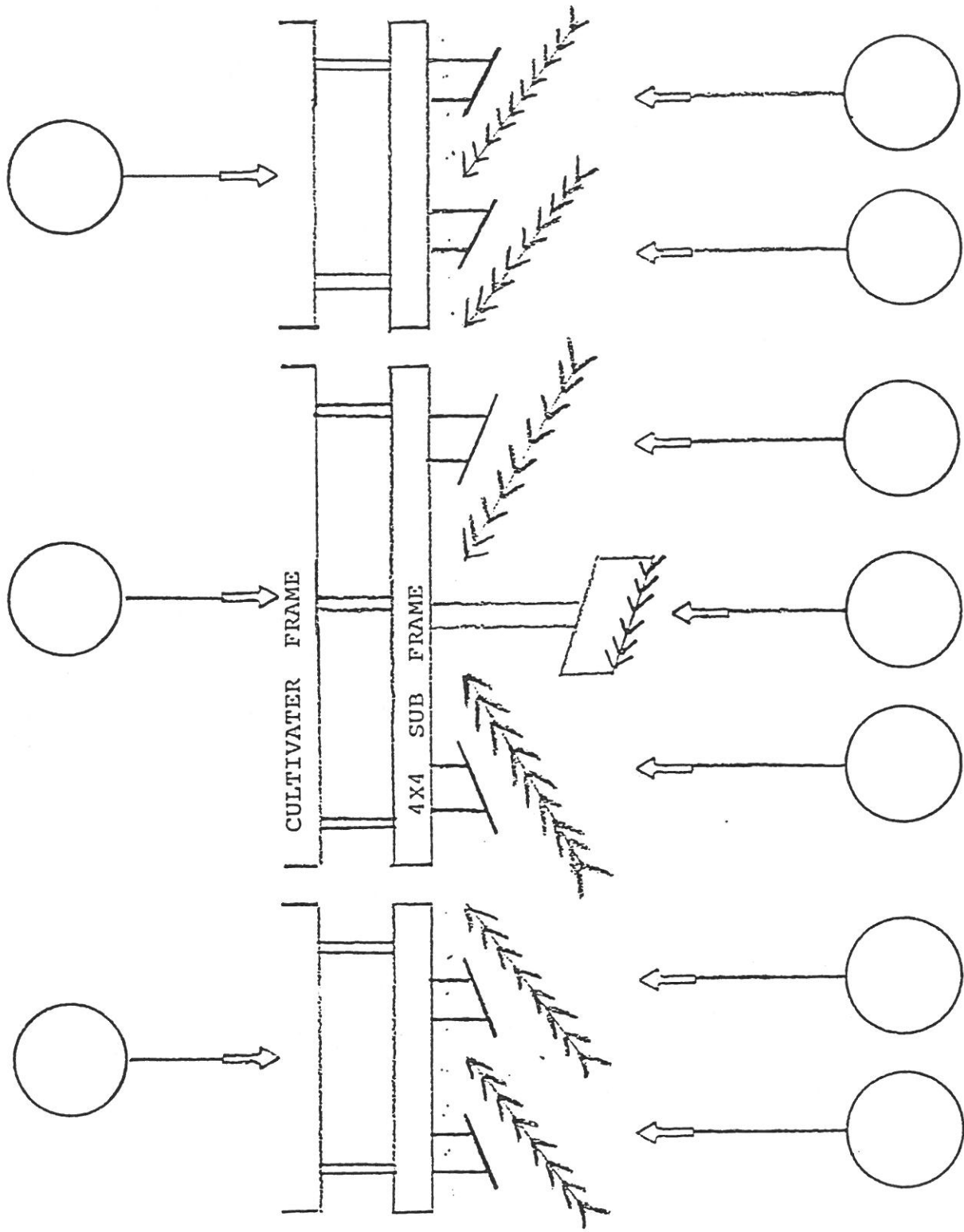
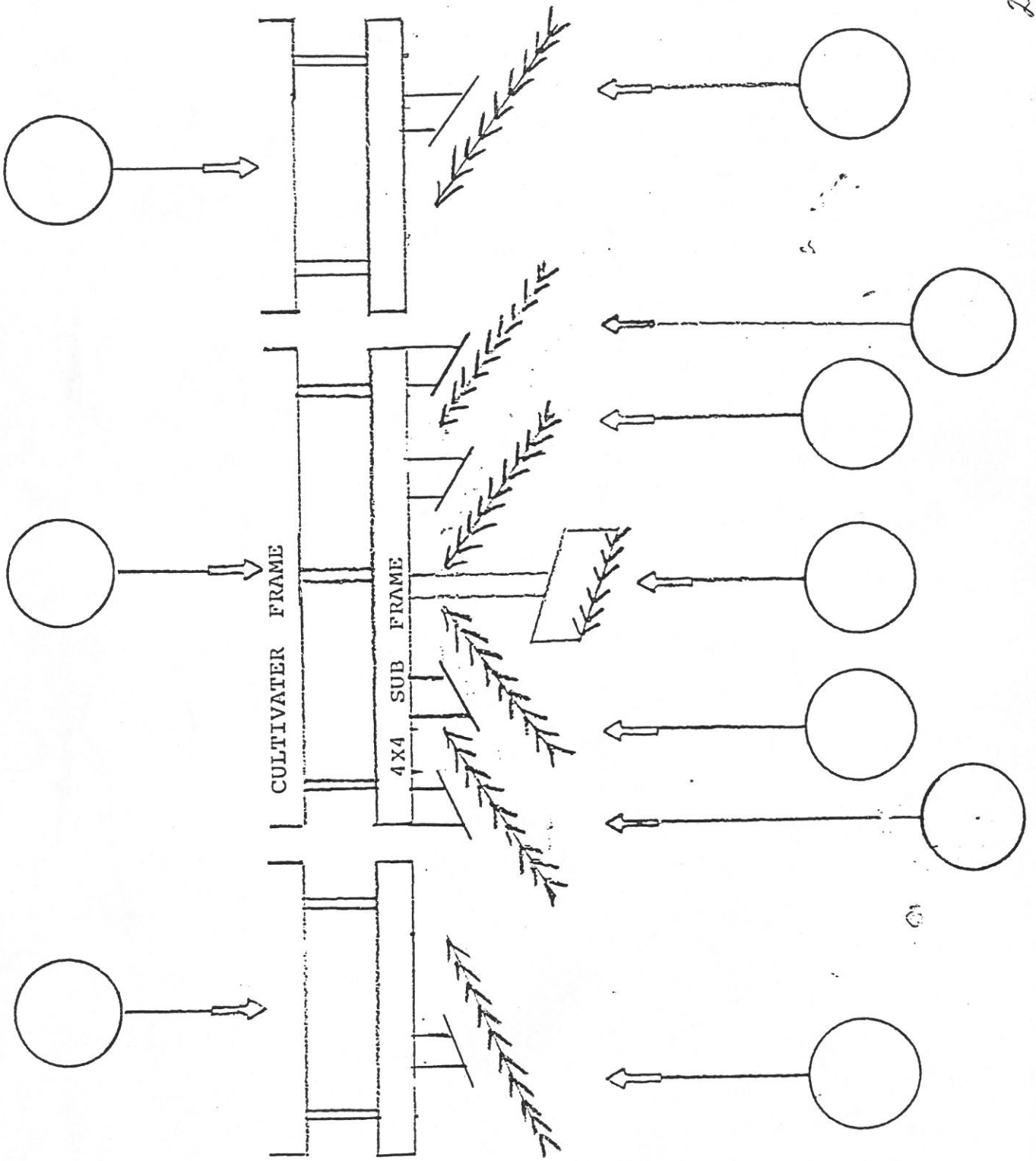


Figure 9. Mounting Bracket & Overbrace

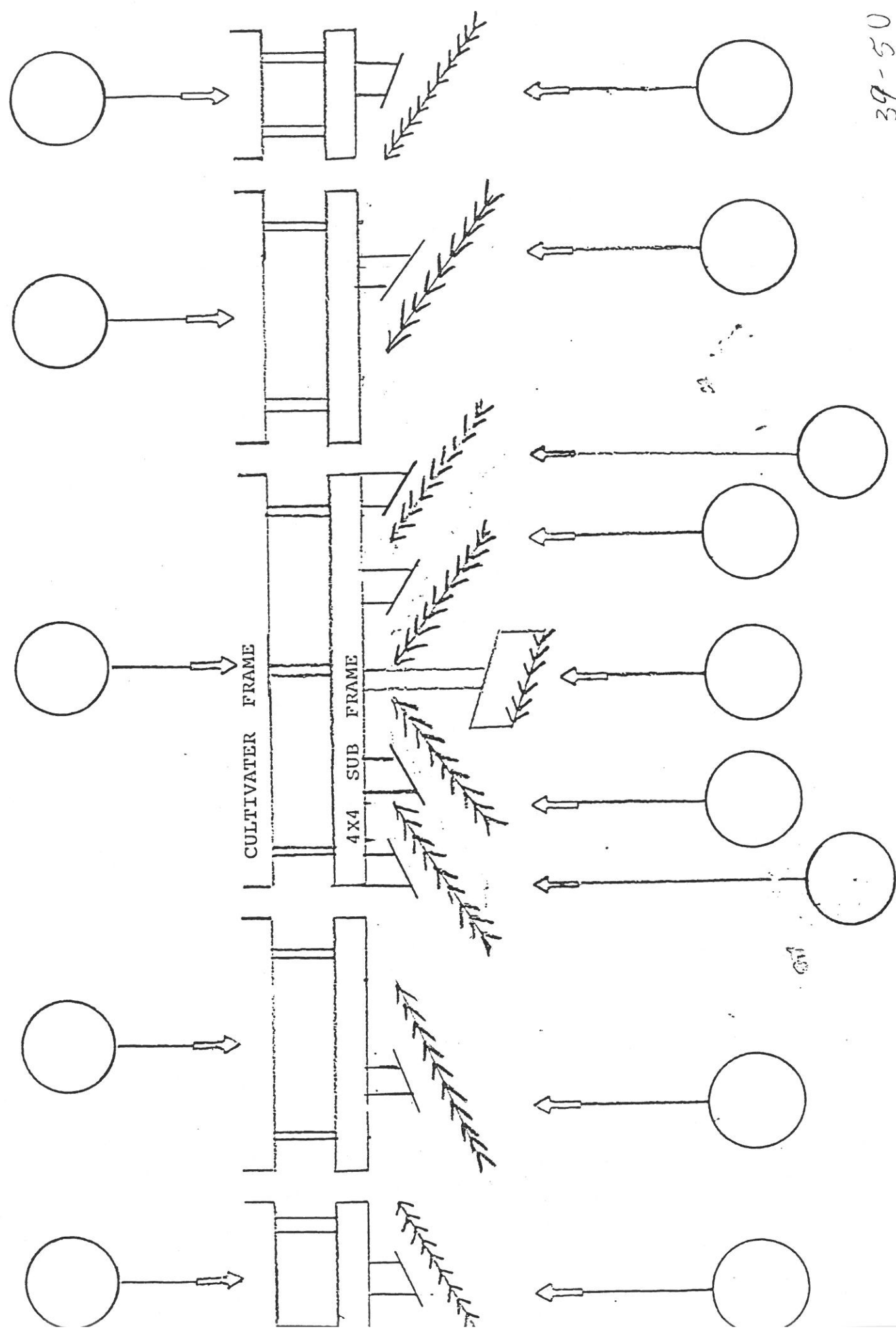


17'-26'





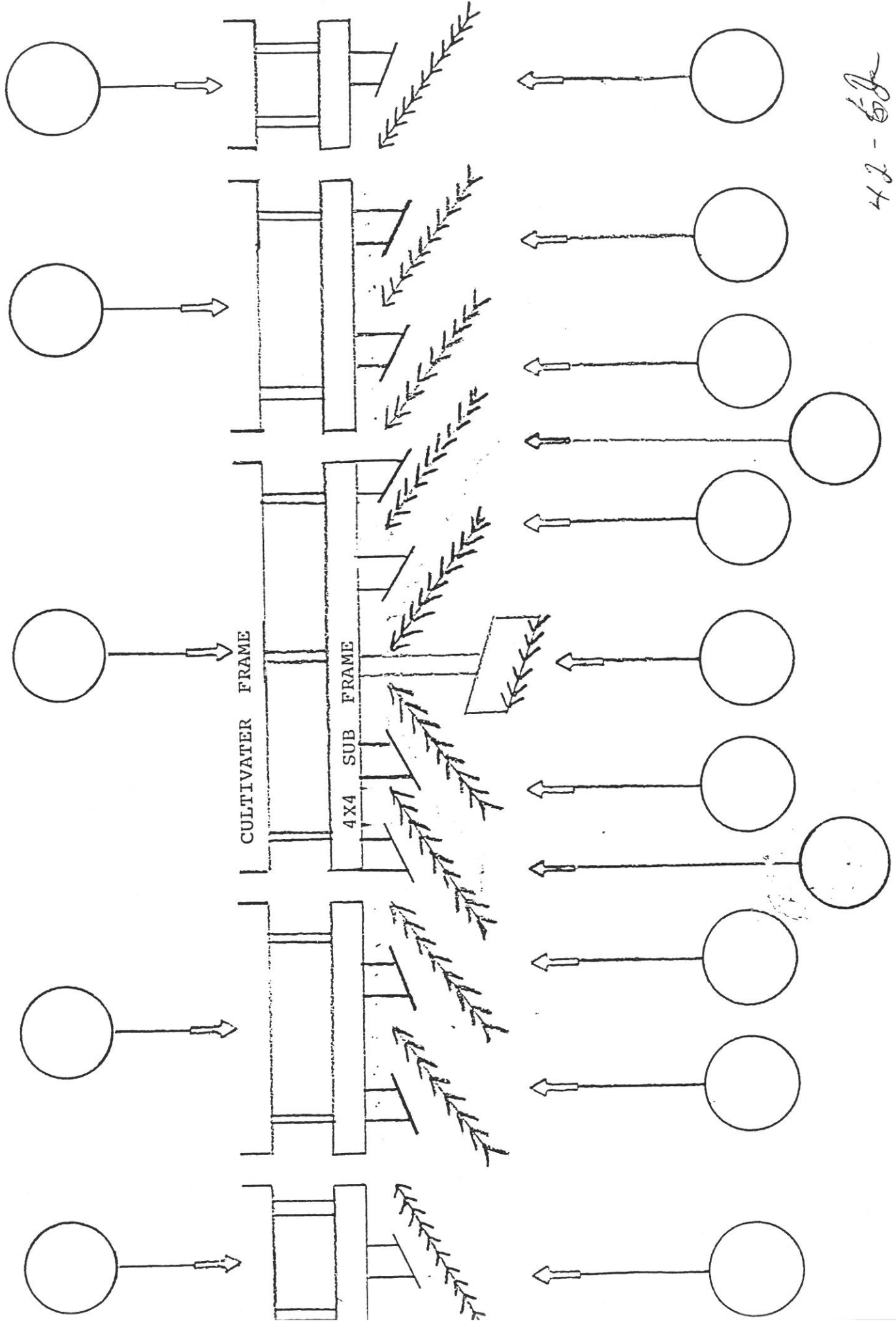
CULTIVATOR SIZE = _____
 MODEL = _____
 SERIES = _____



SERIES=

MODEL=

CULTIVATOR SIZE=



42-62

1991 wing up AHP

1990 + 1991



AHP Bar.

end of Packer
over braces. Need
tabs with plates.
old fly

1992



Wing up AH over brace



Bottom Plate
angle Down

Cult. AH over brace



Bottom Plate
Straight.

AHP Bar



On the first
of AHP Bar



On the centre
of AHP Bar



1992



Centre and first one
on each wing.

On the wing
of AHP Bar



AHP Bottom Plate
angle down For wings exp. Post over
bridge

1974 paper 9412 90 2000 1991

1974 744

1974 744



1974 744

All over place

Bottom plate
single beam



Colt A H over place

Bottom plate
single beam



A H 134



Centre and top edge
over place

1974 744



1992

AHP Bar

← Top Plate

↙ Bottom Plate.

1992 Mac AHP Bar Sch AHP90302.
Racker overbrace
Centre.  over brace
No Plates
or tabs.
AH over  Centre.  over brace all the same

993 AHP Bar ~~Sch.~~ Ray Boutin.
Sch. 6 FT Centre  Plate going
4 FT Front wing.   Plate going
5 FT Bal.  Plate going down

Tomm Chriestian. Rock Ford AB.
A Hover brace  1989 AHP Bar

AHP B.

Sch. #90292.

Centre AH overbrace,
and wings.

 plate up.
with tabs.

Racker over brace.

1989-1990

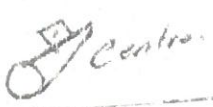
Centre  Plate up. with tabs.

wings without Plates + tabs.

1992 Mac AHP Bar Set AHP90302.

Packer overbrace
Centre c.

over brace
No plates
or tabs.

AH over  centre over brace all the way

1993 AHP Bar ~~Set~~ Ray Boutin.

Set 6 FT Centre  Plate going
4 FT Front wing   Plate going
5 FT Bal.  Plate going down

Team Christian. Rock Ford AB.

AH over brace  1989 AHP Bar

Bottom Plate

AHP B.
Set # 90292.

Centre AH overbrace
and wings.

 plate up.
with tabs.

1989-1990

Packer over brace.

Centre  Plate up. with tabs.
wings without plates + tabs.

A H Mounts.

angle lower is For Cult. AH

angle level with mount wing

angle turn over on mount. AH Bar

Mount with no angle.

AHPB 90211 owned by Glen Connor 858-2714

A H Mounts.

angle lower is For Cult. AH

angle level with mount wing

angle turn over on mount AH Bar

Mount with no angle

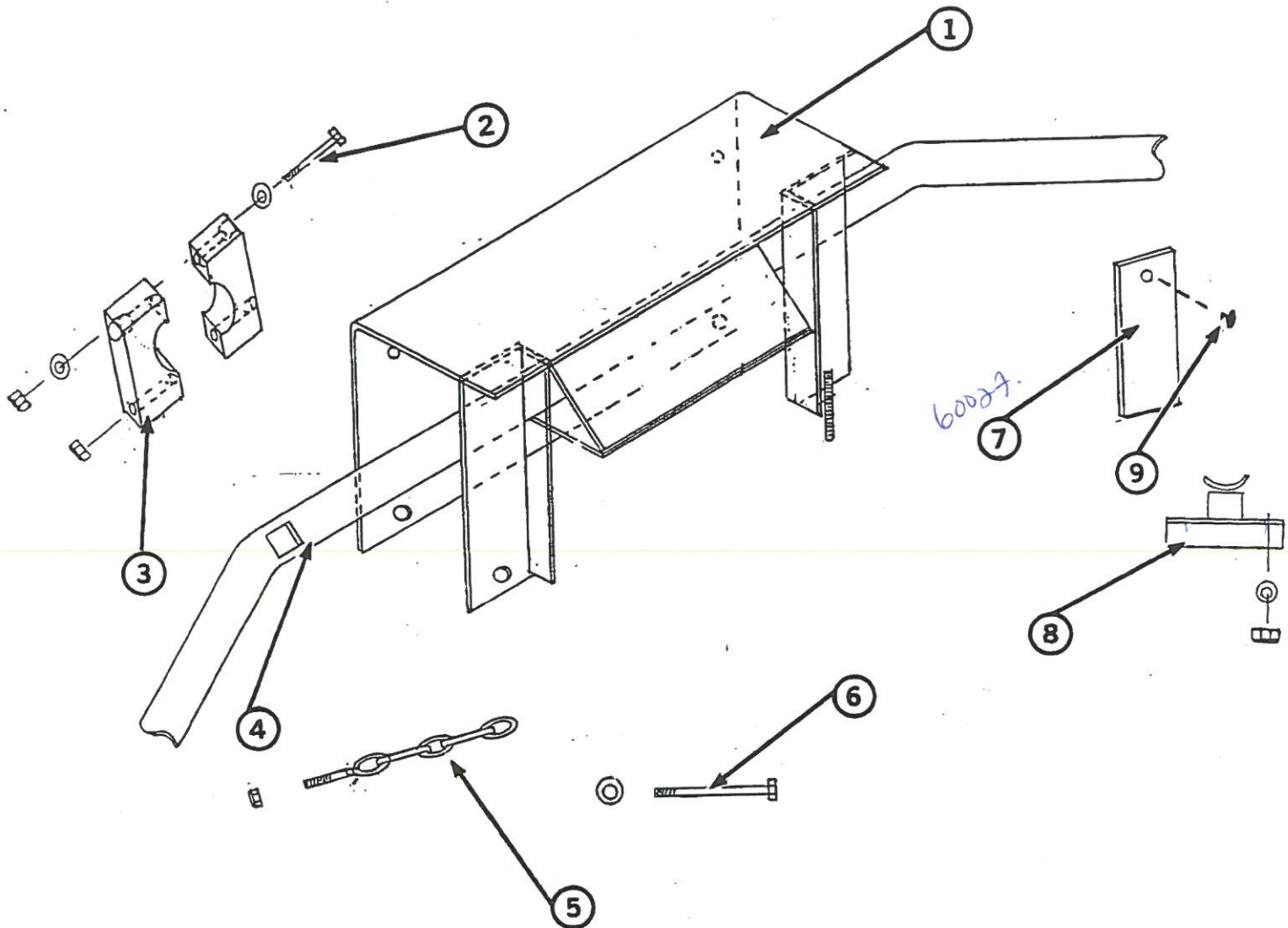
1992

AHP Bar

← Top Plate

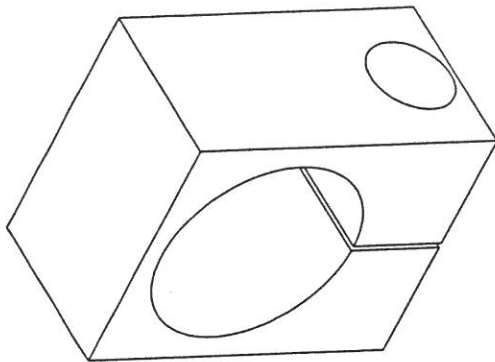
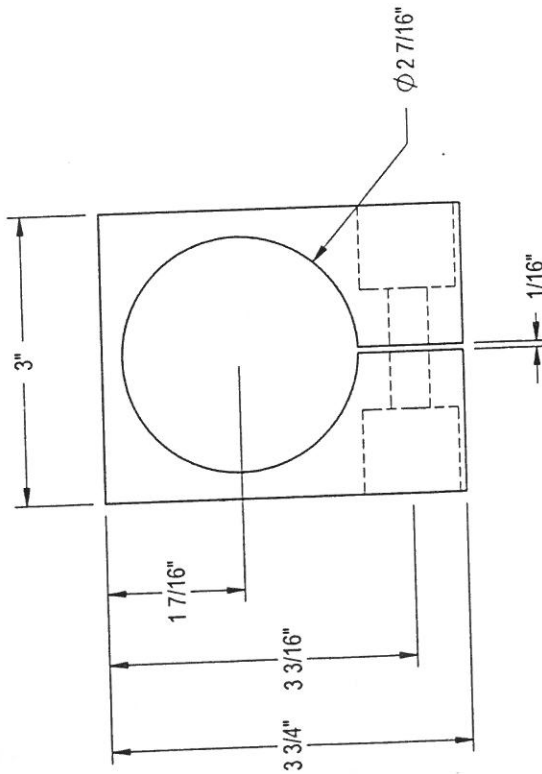
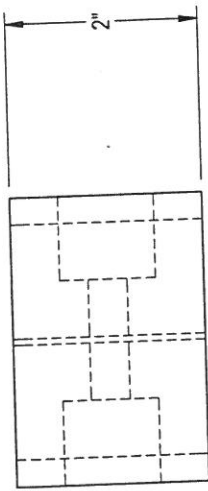
↙ Bottom Plate

UPDATED MOUNTING BRACKET

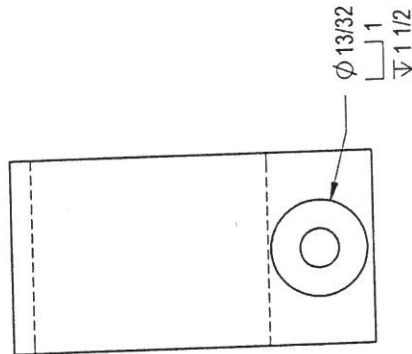


NO.	PART NO.	DESCRIPTION
1	60103	LH ACTIVE HARROW MOUNT
	60104	RH ACTIVE HARROW MOUNT
2	B5C0836P	1/2 X 2 1/4" UNC GR 5 BOLT
	FW07P	7/16" FLATWASHERS
	LNC08P	1/2" LOCKNUT
3	60030	NEOPHRENE RUB PLATE
4	60016	5FT OVERBRACE
	60227	6FT OVERBRACE
	60100	2FT OVERBRACE
5	60230	CHAIN C/W EYEBOLT
6	B5C0880P	1/2 X 5" UNC GR 5 BOLT
7	60231 60027	1/2 X 3 X 6" NEOPHRENE RUB PLATE
8	60031	ANGLE IRON STOP
9	C5C0520P	5/16 X 1 1/4" CARRIAGE BOLT

NOTE:



ORIGINAL



HIGHLINE MFG INC

DATE DRAWN
25 MAY 99

DATE APPROVED

DRAWN BY
CSM

ENG APPROVAL

MATERIAL SPECIFICATION

DESCRIPTION
UHMW

RAW MATERIAL PART NO

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

TOLERANCES

FRACTION
± 1/16

DECIMAL
XX ± .02
XXX ± .005

ANGLE
± .5°

REVISION HISTORY

DESCRIPTION

DATE

MADE BY APPROVAL

REV

SIZE
A

FILE
60033_B

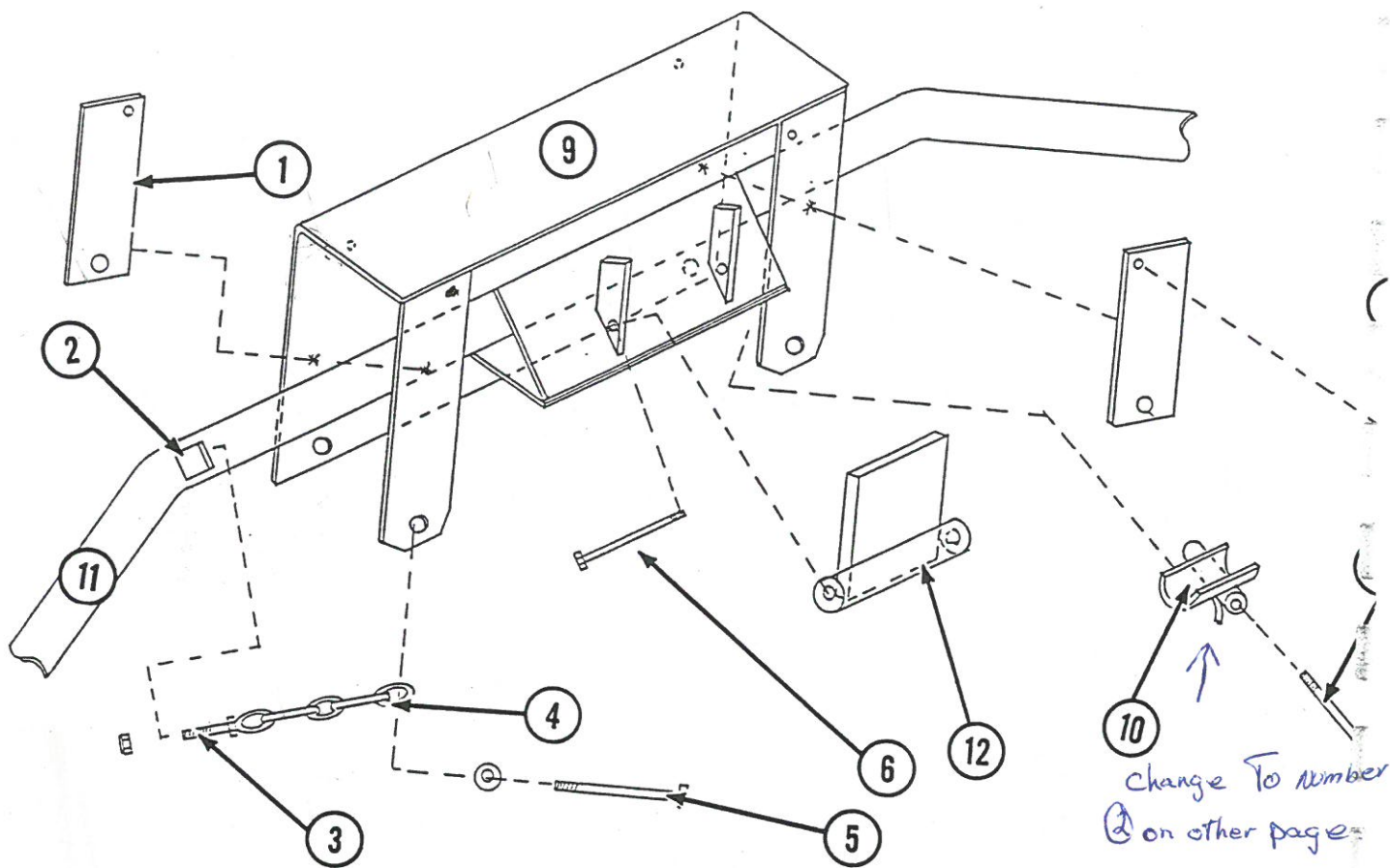
PART NO
60033

REV
B

SCALE
1:2

SHEET
1 OF 1

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ACTIVE HARROW MOUNT ASSEMBLY

NO.	PART NO.	DESCRIPTION
1	11294P	NEOPHREME RUB PLATE
2	11401	CHAIN HOOK-UP
3	B5C0824P	1/2 X 1 1/2" UNC GR 5
	NC08P	1/2" UNC NUT
4	91501	STABILIZER CHAIN
5	B5C0872P	1/2 X 4 1/2" UNC GR 5
	FW08P	1/2" FLATWASHER
6	B5C09104P	9/16 X 6 1/2" UNC GR 5
7	C5C0416P	1/4 X 1" CARRIAGE BOLT
8	B5C0872P	1/2 X 4 1/2" UNC GR 5
9	60019	LH ACTIVE HARROW MOUNT
	60020	RH ACTIVE HARROW MOUNT
10	60021	OVERBRACE REST
11	60016	71" ACTIVE HARROW OVERBRACE
12	60008	PACKER LOCK PLATE

Table 2. Mounting Bracket & Overbrace Parts List

Item No.	Part No.	Description
1	B5C0856P	1/2" x 3-1/2" UNC Gr. 5 Bolt
2	60032	Block Stop Bracket
3	60035	4ft Overbrace
	60016	5ft Overbrace
	60227	6ft Overbrace
4	B5C0632P	3/8" x 2" UNC Gr. 5 Bolt
5	60030	Rub Wear Block
6	B5C0880P	1/2" x 5" UNC Gr. 5 Bolt
7	60224	Left A.H. Mounting Bracket
	60225	Right A.H. Mounting Bracket
8	LNC08	1/2" UNC Lock Nut
9	LNC08	1/2" UNC Lock Nut
10	60033	Rub Moving Block
11	LNC06	3/8" UNC Lock Nut
12	FW06P	3/8" Flat Washer
13	92081	2" O.D. x 9/16" I.D. Flat Washer
Not Shown	60230	Eyebolt & Link Chain
Not Shown	LNC08	1/2" UNC Lock Nut

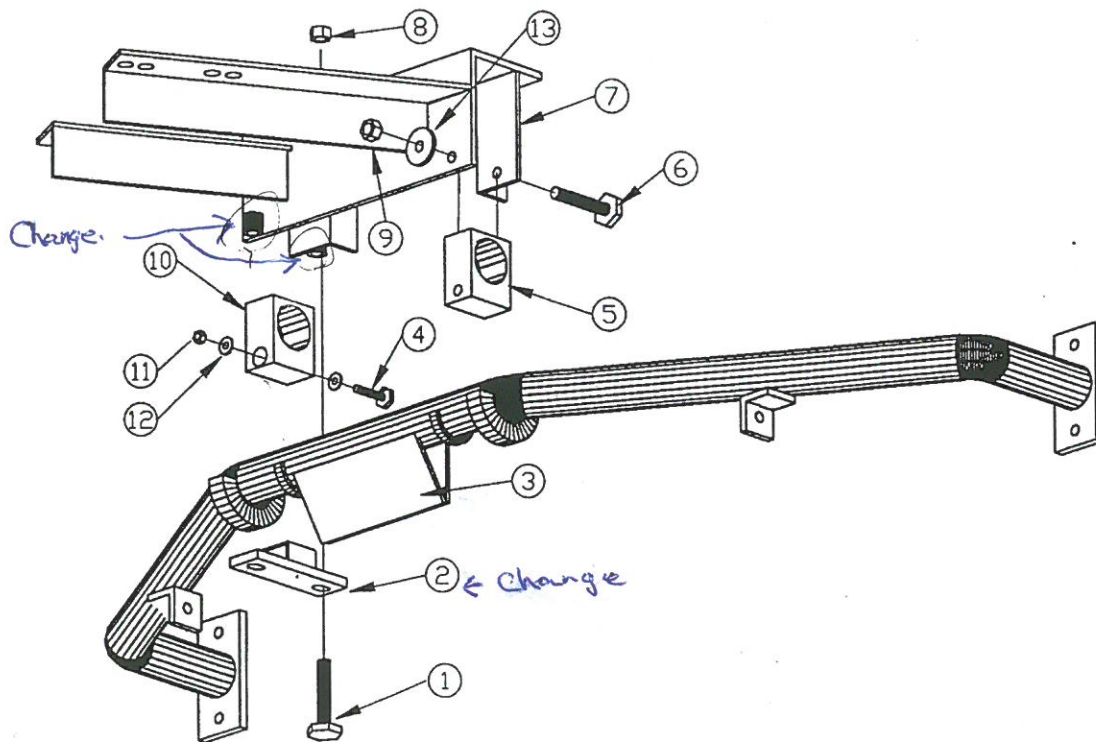


Figure 9. Mounting Bracket & Overbrace

New style-