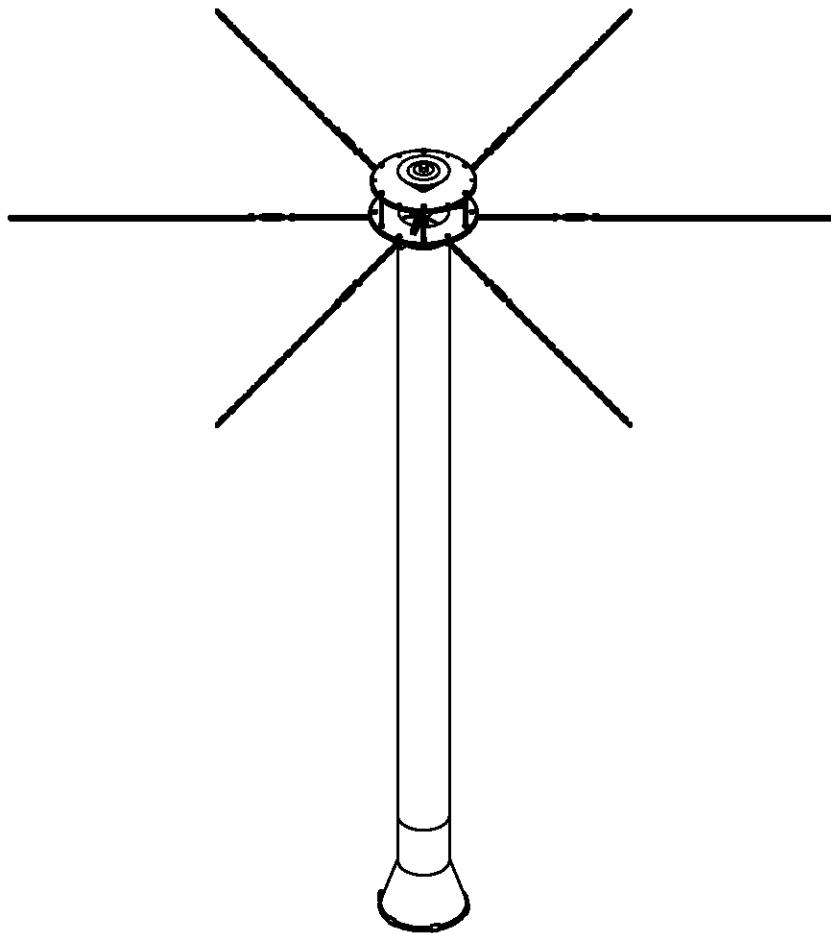




# CENTER VERTICAL PARTS MANUAL



SHIVERS MANUFACTURING, INC.  
CORYDON, IOWA USA  
(641) 872-1005  
[www.shivers.com](http://www.shivers.com)

P-9069  
12/04/2014



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\* WSCV=WIDE SPREAD CENTER VERTICAL

\* HCCV=HIGH CAPACITY CENTER VERTICAL

# 6" CIRCULATOR I CENTER VERTICAL HARDWARE AND ACCESSORIES

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	Tumbuckle, Hook Both Ends, 3/8 Mini	6	F-2013	23
2	Center Vertical Assembly, 6"	1	See Chart	-
-	Hard Surface Center Vertical Assy, 6"	-	See Chart	-
3	Spreader Fin, Medium	3	10A-048P	6
4	Spreader Fin, Small	3	10A-047P	6
5	Spreader Fin Weldment	3	10B-049W	6
6	Chain	6	See Chart	23
7	Chain, 14" Long	6	222-098P	23
8	Capscrew, Hx 3/8-16 X 1-1/2", Gr. 5	6	F-1015-27	23
9	Washer, Flat, Std, Steel, 3/8"	12	F-1009-03	23
10	Nut, Hx Znc Plated, 3/8-16	6	F-1011-03	23
11	Spider Wheel Assembly	1	222-036A	7
12	Lockwasher, 3/8		F-1019-03	23
13	Spacer Bushing		208-025P	23

## 6" NON HARD SURFACE CENTER VERTICAL ASSEMBLY CHART

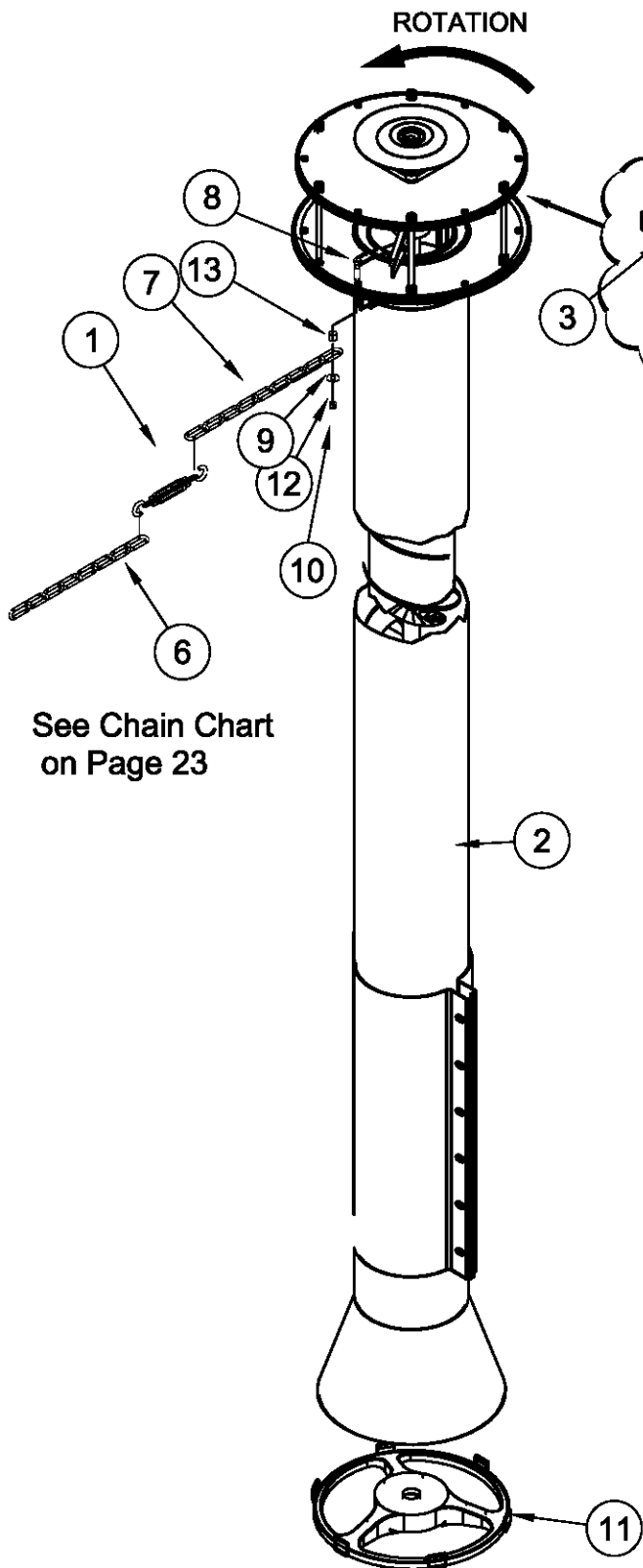
ASSEMBLY NUMBER	DESCRIPTION
217A-001A	6" Center Vertical, 10'8"
217B-001A	6" Center Vertical, 12'0"
217C-001A	6" Center Vertical, 14'0"
217H-001A	6" Center Vertical, 15'4"
217D-001A	6" Center Vertical, 16'9"
217E-001A	6" Center Vertical, 17'9"
217F-001A	6" Center Vertical, 18'5"
217G-001A	6" Center Vertical, 20'3"

-  
-  
-  
-  
SHORT  
MEDIUM  
TALL  
X- TALL

## 6" HARD SURFACE CENTER VERTICAL ASSEMBLY CHART

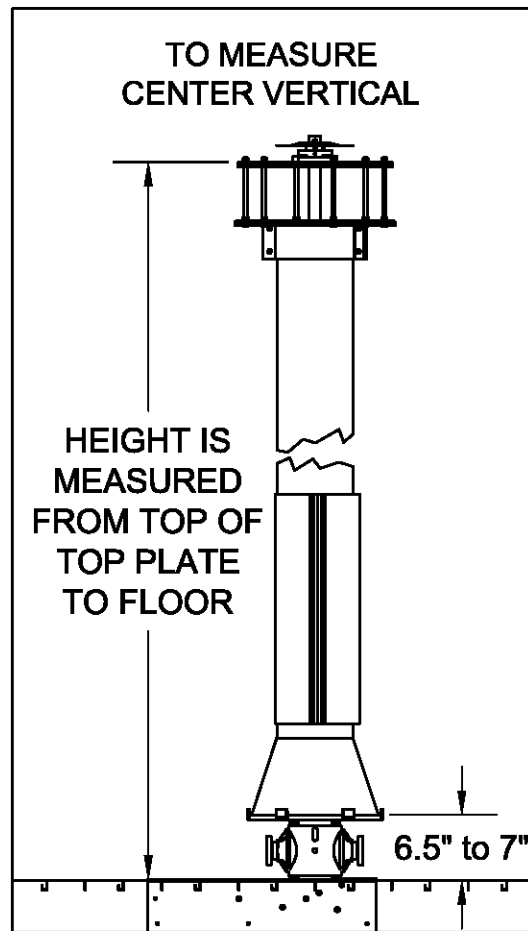
ASSEMBLY NUMBER	DESCRIPTION
614A-001A	6" Center Vertical, 10'8", H.S.
614B-001A	6" Center Vertical, 12'0", H.S.
614C-001A	6" Center Vertical, 14'0", H.S.
614H-001A	6" Center Vertical, 15'4", H.S.
614D-001A	6" Center Vertical, 16'9", H.S.
614E-001A	6" Center Vertical, 17'9", H.S.
614F-001A	6" Center Vertical, 18'5", H.S.
614G-001A	6" Center Vertical, 20'3", H.S.

# 6" CIRCULATOR I CENTER VERTICAL HARDWARE AND ACCESSORIES



**NOTE:**  
Chains, Fin Sack, and Spider Wheel must be ordered separately from the Center Vertical Assembly.

See Chain Chart on Page 23



# 6" CENTER VERTICAL (CIRCULATOR I)

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	Pickup Finger Weldment (LH)	1	217-046W	5
-	Hard Surface Pickup Finger Wldt (LH)	-	614-003W	5
2	Cone Weldment	1	217-045W	6
3	Flite Weldment (LH)	1	See Chart	3
-	Hard Surface Flite Weldment (LH)	-	See Chart	3
4	Sleeve	1	217-059P	-
5	Roll Pin, Double Hd, 3/8 X 2	1	F-1036-49	-
6	Tube, 6" OD	1	See Chart	3
7	Shield	1	217-062P	-
8	Plate, Bottom Weldment	1	217-035W	-
9	Spreader Wheel, Nodular Iron	1	124-008P	22
10	Top Plate	1	217-048P	-
11	Bolt, Spacer Assembly	6	217-042A	-
12	Bearing, 4 Hole Flange, 1-1/4" Bore	1	D-2002-02	-
13	Washer, Flat, 14 Ga. 1.875 X 1.281	4	F-8003-01	-
14	Washer, Flat, 10 Ga. 1.875 X 1.281	4	F-8003-02	-
15	Nut, Hx Znc Plated, 1/2-13, Stover	4	F-1005-05	-
16	Capscrew, Hx, 1/2-13 X 1-1/2", Gr. 5	4	F-1526	-
17	Nut, Hx Znc Plated, 3/8-16, Stover	23	F-1005-03	-
18	Capscrew, Hx, 1/4-20 X 1, Gr. 5	3	F-1015-05	-
19	Hub	1	217-016P	-
20	Key, Step	1	217-015P	-
21	Washer, Flat, Std, Steel, 3/8"	9	F-1009-03	-
22	Capscrew, Hx, 3/8-16 X 1-1/2", Gr. 5	9	F-1015-27	-
23	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28	-
24	Coupler	1	658-015P	-
25	Bolt, Socket Head, Shoulder, 1/2"	8	F-1014-02	-

## 6" NON HARD SURFACE FLITE WELDMENT CHART

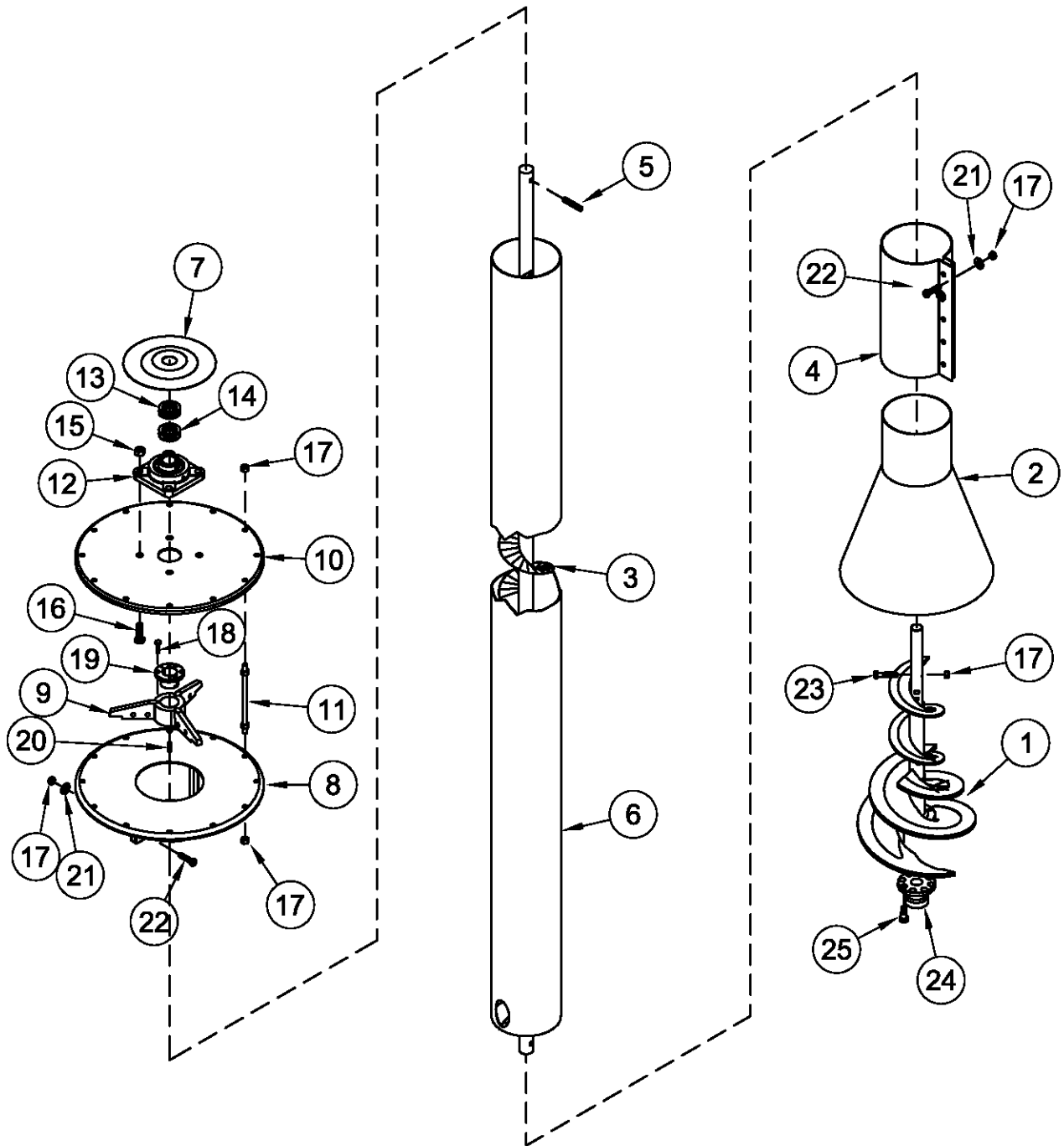
WELDMENT NUMBER	DESCRIPTION
217A-036W	6" Center Vertical, 10'8"
217B-036W	6" Center Vertical, 12'0"
217C-036W	6" Center Vertical, 14'0"
217H-036W	6" Center Vertical, 15'4"
217D-036W	6" Center Vertical, 16'9"
217E-036W	6" Center Vertical, 17'9"
217F-036W	6" Center Vertical, 18'5"
217G-036W	6" Center Vertical, 20'3"

## 6" HARD SURFACE FLITE WELDMENT CHART

WELDMENT NUMBER	DESCRIPTION
614A-004W	6" Center Vertical, 10'8", H.S.
614B-004W	6" Center Vertical, 12'0", H.S.
614C-004W	6" Center Vertical, 14'0", H.S.
614H-004W	6" Center Vertical, 15'4", H.S.
614D-004W	6" Center Vertical, 16'9", H.S.
614E-004W	6" Center Vertical, 17'9", H.S.
614F-004W	6" Center Vertical, 18'5", H.S.
614G-004W	6" Center Vertical, 20'3", H.S.

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
217A-058P	Tube, 6" OD, 8' 2-5/8" Long	217D-058P	Tube, 6" OD, 14' 3-5/8" Long
217B-058P	Tube, 6" OD, 9' 6-5/8" Long	217E-058P	Tube, 6" OD, 15' 3-5/8" Long
217C-058P	Tube, 6" OD, 11' 6-5/8" Long	217F-058P	Tube, 6" OD, 15' 11-5/8" Long
217H-058P	Tube, 6" OD, 12' 10-5/8" Long	217G-058P	Tube, 6" OD, 17' 9-5/8" Long

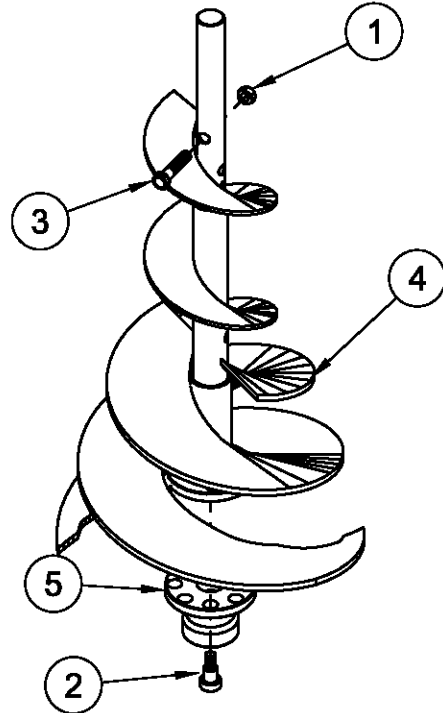
# 6" CENTER VERTICAL (CIRCULATOR I)



# 6" CIRCULATOR I PICK-UP FINGER KIT

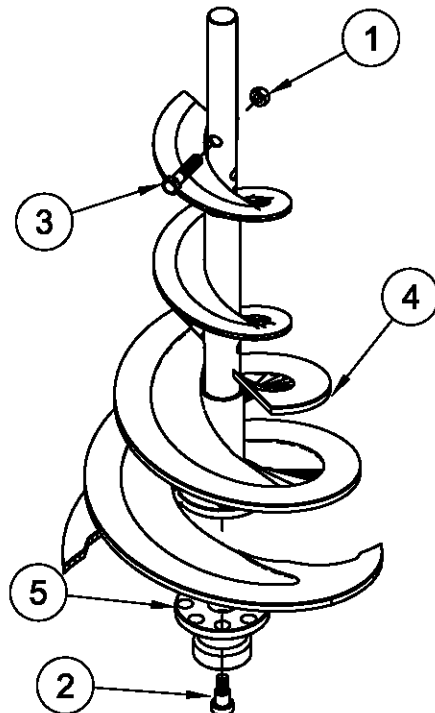
## 6" NON-HARD SURFACE PICK-UP FINGER KIT (LH) 423-023-001A

ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	124-010A
1	Nut, Hx Znc Plated, 3/8-16, Stover	2	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	4	F-1014-02
3	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
-	Thread Locker	1	C-6037
4	Pick-up Finger Weldment (LH)	1	217-046W
5	WSCV Drive Coupler	1	658-015P



## 6" HARD SURFACE PICK-UP FINGER KIT (LH) 423-243-001A

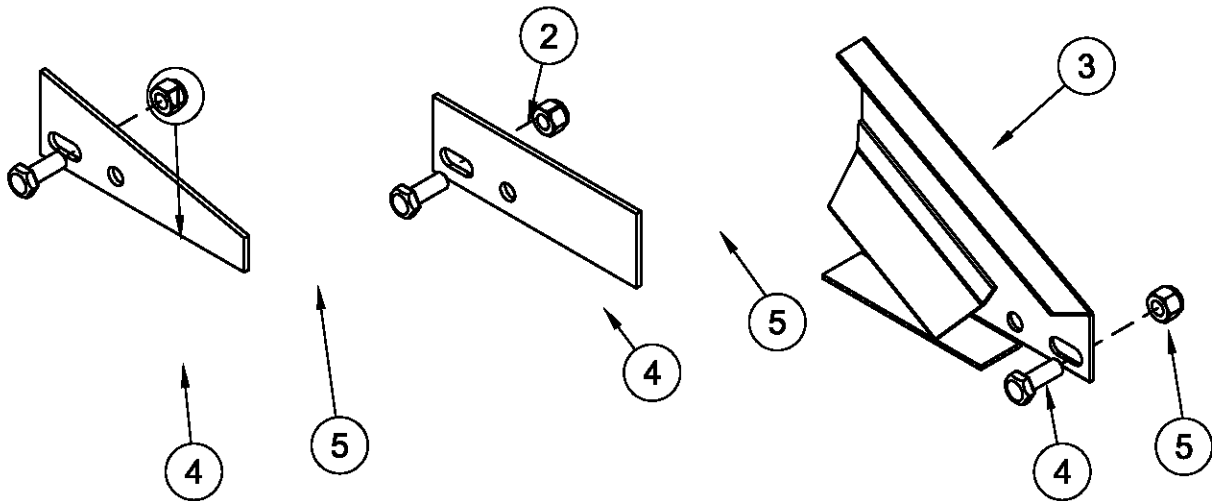
ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	124-010A
1	Nut, Hx Znc Plated, 3/8-16, Stover	2	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	4	F-1014-02
3	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
-	Thread Locker	1	C-6037
4	Pick-up Finger Weldment (LH)	1	614-003W
5	WSCV Drive Coupler	1	658-015P





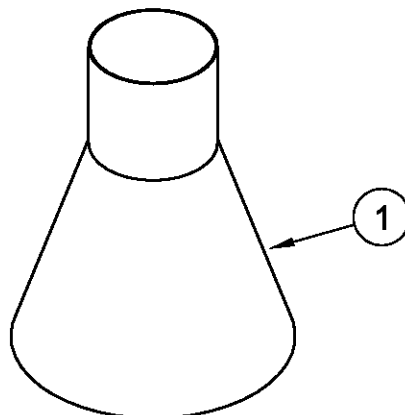
# 6" CIRCULATOR I FIN SACK (222-083A)

ITEM	DESCRIPTION	QTY	PART NO.
1	Spreader Fin, Small	3	10A-047P
2	Spreader Fin, Medium	3	10A-048P
3	Spreader Fin, Weldment	3	10B-049W
4	Capscrew, Hx, 5/16-18 X 1, Gr. 5	6	F-1015-15
5	Nut, Hx Znc Plated, 5/16-16, Nyloc	6	F-1005-02



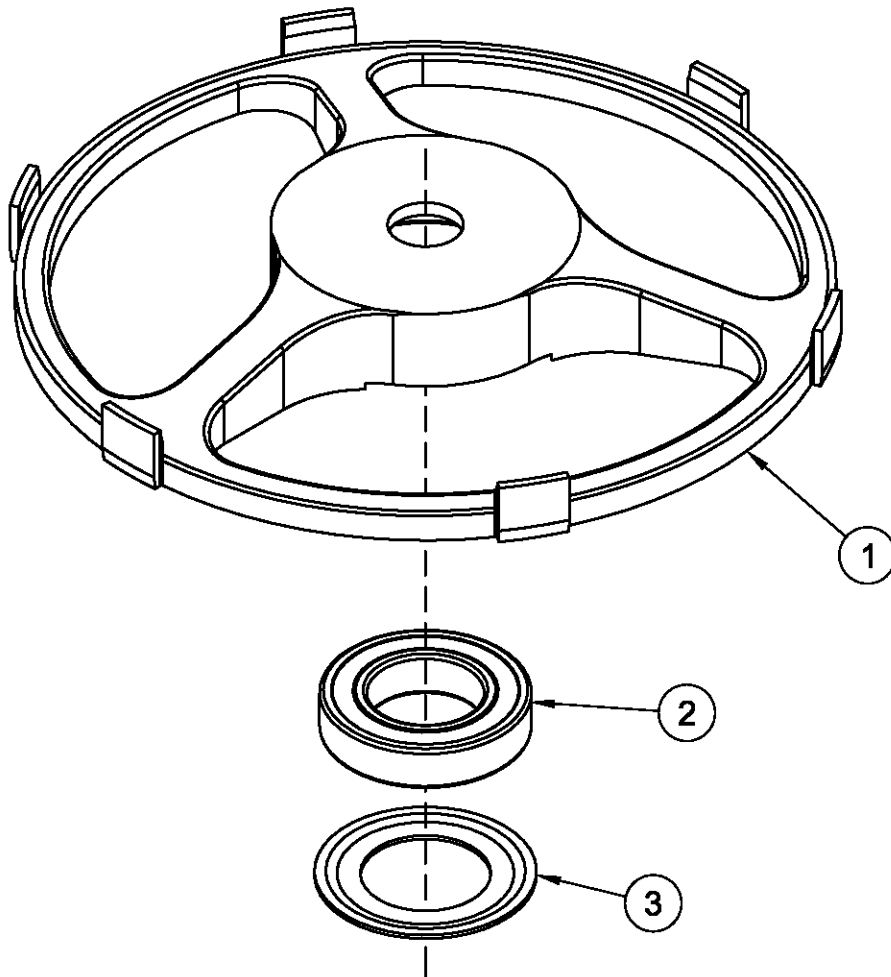
# 6" CONE KIT (423-065-001A)

ITEM	DESCRIPTION	QTY	PART NO.
1	6" Cone Weldment	1	217-045W



# **CIRCULATOR I SPIDER WHEEL KIT** **(423-068-001A)**

ITEM	DESCRIPTION	QTY	PART NO.
A	Spider Wheel Assembly	1	222-036A
1	Spider Wheel	1	222-035P
2	Bearing, 1.9685 Bore, 3.5433 OD	1	D-2003-01
3	Protector, Bearing	1	222-041P



# NOTES

# 8" CIRCULATOR I CENTER VERTICAL HARDWARE AND ACCESSORIES

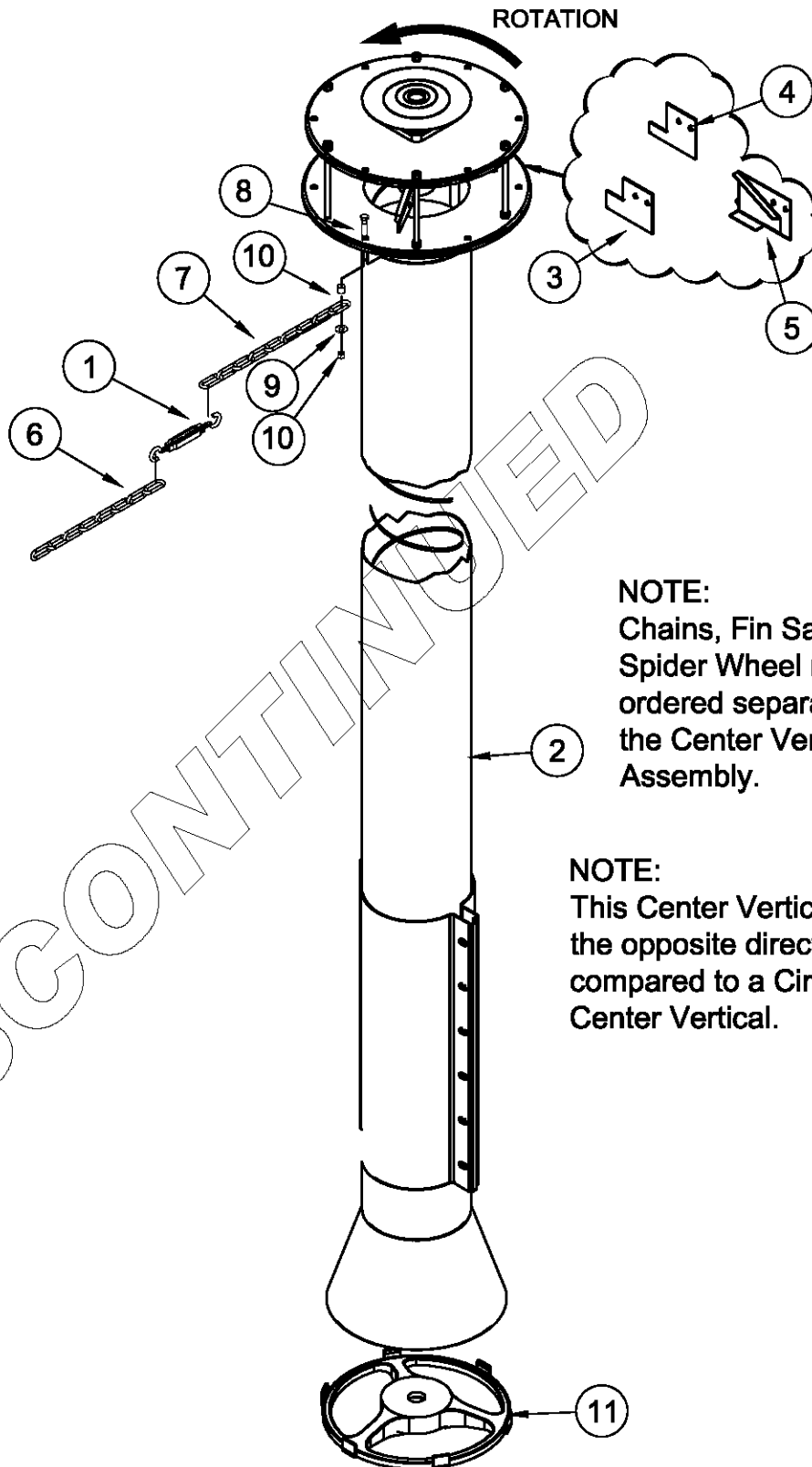
ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
*1	Turnbuckle, Hook Both Ends, 5/16	6	F-1018-01	23
2	Center Vertical Assembly, 8"	1	See Chart	-
3	Spreader Fin #2, Medium	3	222Z-005P	13
4	Spreader Fin #1, Small	3	222Z-004P	13
5	Spreader Fin #3 Weldment	3	222Z-007W	13
*6	Chain	6	See Chart	23
*7	Chain, 13" Long	6	222-031P	23
8	Capscrew, Hx 5/16-18 X 1, Gr. 5	6	F-1015-15	-
9	Washer, Flat, Std, Steel, 5/16"	12	F-1009-02	-
10	Nut, Hx Znc Plated, 5/16-18 w/ Nyloc	6	F-1005-02	-
11	Spider Wheel Assembly	1	222-036A	7

\* Use Heavy chains and Turnbuckles (see page 23) for replacement.

## 8" CENTER VERTICAL ASSEMBLY CHART

ASSEMBLY NUMBER	DESCRIPTION
219A-001A	8" Center Vertical, 10'8"
219B-001A	8" Center Vertical, 12'0"
219C-001A	8" Center Vertical, 14'0"
219H-001A	8" Center Vertical, 15'4"
219D-001A	8" Center Vertical, 16'9"
219E-001A	8" Center Vertical, 17'9"
219F-001A	8" Center Vertical, 18'5"
219G-001A	8" Center Vertical, 20'3"

# 8" CIRCULATOR I CENTER VERTICAL HARDWARE AND ACCESSORIES



**NOTE:**  
Chains, Fin Sack, and Spider Wheel must be ordered separately from the Center Vertical Assembly.

**NOTE:**  
This Center Vertical spins in the opposite direction as compared to a Circulator II 8" Center Vertical.

# 8" CENTER VERTICAL (CIRCULATOR I)

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	8" Pickup Finger Weldment (LH)	1	219-003W	13
2	Cone Weldment	1	219-009W	20
3	Flite Weldment (LH)	1	See Chart	-
4	Sleeve	1	243-006P	-
5	Roll Pin, Double Hd, 3/8 X 2	1	F-1036-49	-
6	Tube, 8" OD	1	See Chart	-
7	Shield	1	217-062P	-
8	Plate, Bottom Weldment	1	219-007W	-
9	Spreader Wheel, Nodular Iron	1	124-008P	22
10	Top Plate	1	217-048P	-
11	Bolt, Spacer Assembly	6	217-042A	-
12	Bearing, 4 Hole Flange, 1-1/4" Bore	1	D-2002-02	-
13	Washer, Flat, 14 Ga. 1.875 X 1.281	6	F-8003-01	-
14	Washer, Flat, 10 Ga. 1.875 X 1.281	8	F-8003-02	-
15	Nut, Hx Znc Plated, 1/2-13, Stover	4	F-1005-05	-
16	Capscrew, Hx, 1/2-13 X 1-1/2", Gr. 5	4	F-1526	-
17	Nut, Hx Znc Plated, 3/8-16, Stover	28	F-1005-03	-
18	Capscrew, Hx, 1/4-20 X 1, Gr. 5	3	F-1015-05	-
19	Hub	1	217-016P	-
20	Key, Step	1	217-015P	-
21	Washer, Flat, Std, Steel, 3/8"	9	F-1009-03	-
22	Capscrew, Hx, 3/8-16 X 1-1/2", Gr. 5	9	F-1015-27	-
23	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28	-
24	Coupler	1	658-015P	-
25	Bolt, Socket Head, Shoulder, 1/2"	8	F-1014-02	-

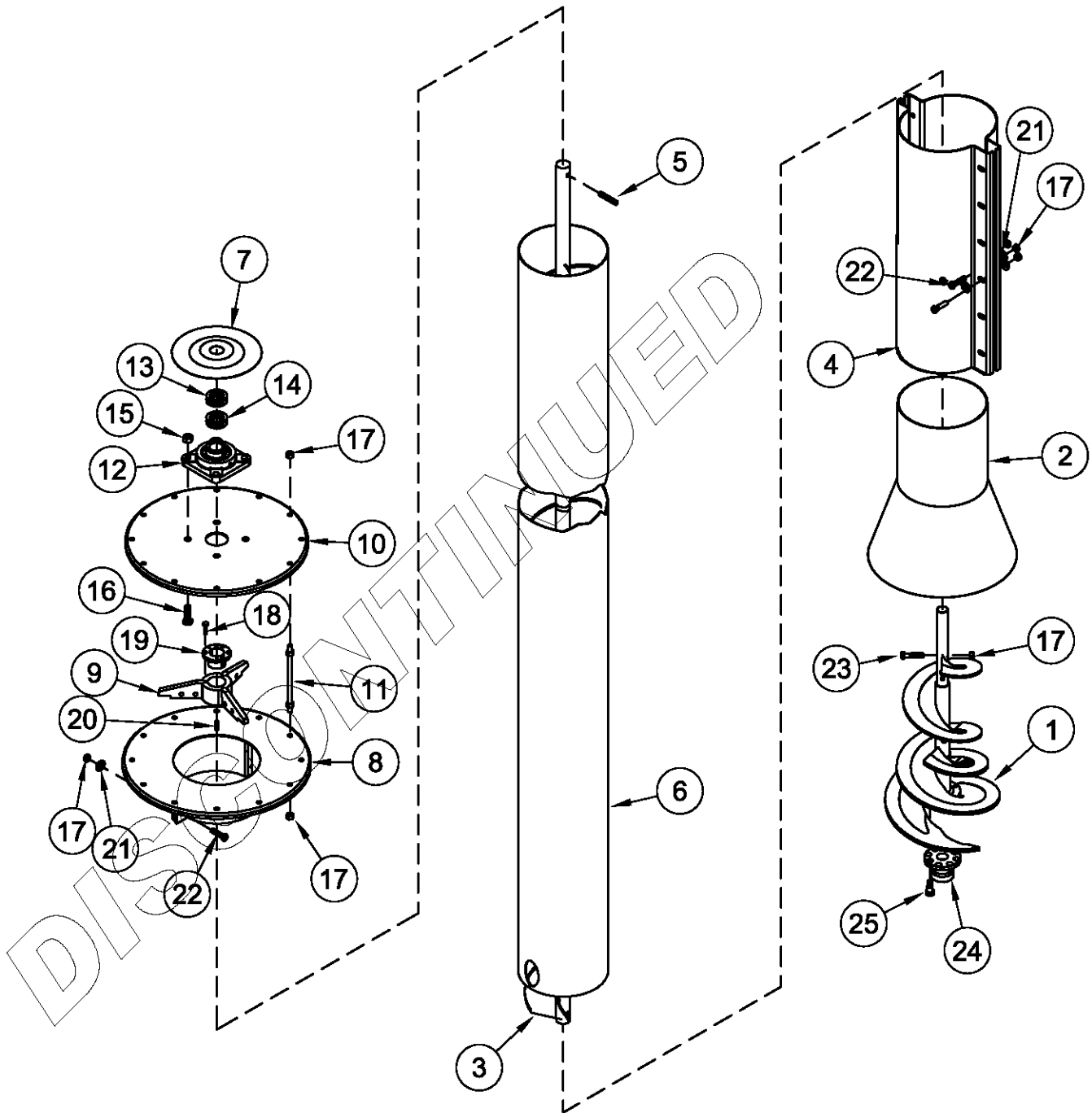
## 8" FLITE WELDMENT CHART

WELDMENT NUMBER	DESCRIPTION
219A-005W	8" Center Vertical, 10'8"
219B-005W	8" Center Vertical, 12'0"
219C-005W	8" Center Vertical, 14'0"
219H-005W	8" Center Vertical, 15'4"
219D-005W	8" Center Vertical, 16'9"
219E-005W	8" Center Vertical, 17'9"
219F-005W	8" Center Vertical, 18'5"
219G-005W	8" Center Vertical, 20'3"

## 8" TUBE CHART

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
219A-012P	Tube, 8" OD, 8' 2-5/8" Long	219D-012P	Tube, 8" OD, 14' 3-5/8" Long
219B-012P	Tube, 8" OD, 9' 6-5/8" Long	219E-012P	Tube, 8" OD, 15' 3-5/8" Long
219C-012P	Tube, 8" OD, 11' 6-5/8" Long	219F-012P	Tube, 8" OD, 15' 11-5/8" Long
219H-012P	Tube, 8" OD, 12' 10-5/8" Long	219G-012P	Tube, 8" OD, 17' 9-5/8" Long

# 8" CENTER VERTICAL (CIRCULATOR I)



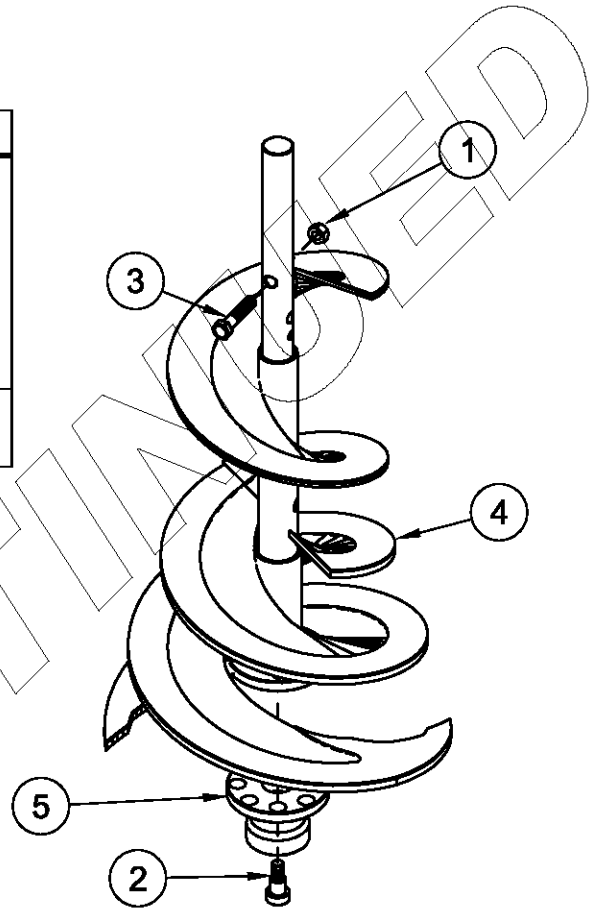
# 8" CIRCULATOR I PICK-UP FINGER KIT

(423-044-001A)

## 8" HARD SURFACE PICK-UP FINGER KIT (LH)

ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	124-010A
1	Nut, Hx Znc Plated, 3/8-16, Stover	2	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	4	F-1014-02
3	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
-	Thread Locker	1	C-6037
4	Pick-up Finger Weldment (LH)	1	219-003W
5	WSCV Drive Coupler	1	658-015P

**NOTE:**  
8" Circulator I Pick-Up  
Finger is painted green.

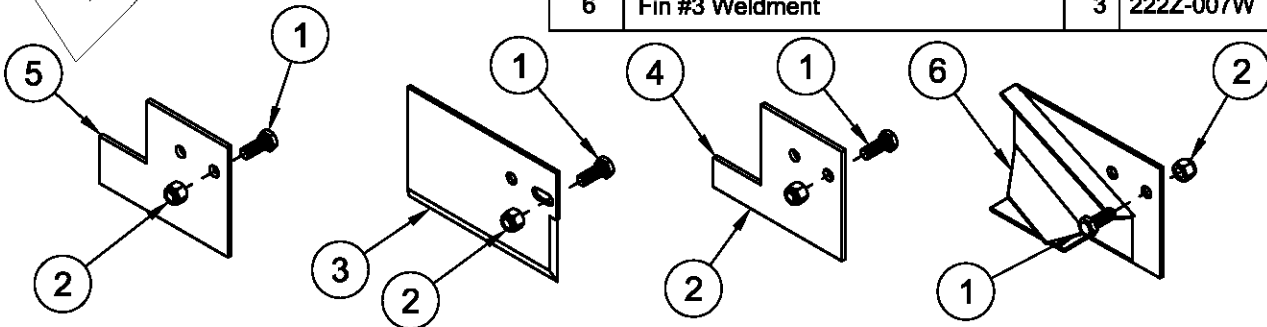


# 8" CIRCULATOR I FIN SACK

(222-084A)

**NOTE:**  
Replacement parts may not be  
available. If they are not available use  
222-083A Fin Sack (see page 6).

ITEM	DESCRIPTION	QTY	PART NO.
1	Capscrew, Hx 5/16-18 X 1, Gr. 5	6	F-1015-15
2	Nut, Hx Znc Plated, 5/16-18 Nyloc	6	F-1005-02
3	Rice Spreader Fin	3	222Z-003P
4	Fin #1	3	222Z-004P
5	Fin #2	3	222Z-005P
6	Fin #3 Weldment	3	222Z-007W





# NOTES

# 8" CIRCULATOR II CENTER VERTICAL HARDWARE AND ACCESSORIES

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	Turnbuckle, Hook Both Ends, 3/8"	6	F-2013	23
2	Center Vertical Assembly, 8"	1	See Chart	15
-	Hard Surface Center Vertical Assy, 8"	-	See Chart	15
3	Spreader Fin, Medium	3	10A-048P	20
4	Spreader Fin, Small	3	10A-047P	20
5	Spreader Fin Weldment	3	10-080W	20
6	Chain	6	See Chart	23
7	Chain, 14" Long	6	222-098P	23
8	Capscrew, Hx 3/8-16 x 1-1/2", Gr. 5	6	F-1015-27	23
9	Washer, Flat, Std, Steel, 3/8"	12	F-1009-03	23
10	Nut, Hx Znc Plated, 3/8-16"	6	F-1011-03	23
11	Spider Wheel Assembly	1	223-003A	21
12	Lockwasher, 3/8"	6	F-1019-03	23
13	Spacer Bushing	6	208-025P	23

## 8" NON HARD SURFACE CENTER VERTICAL ASSEMBLY CHART

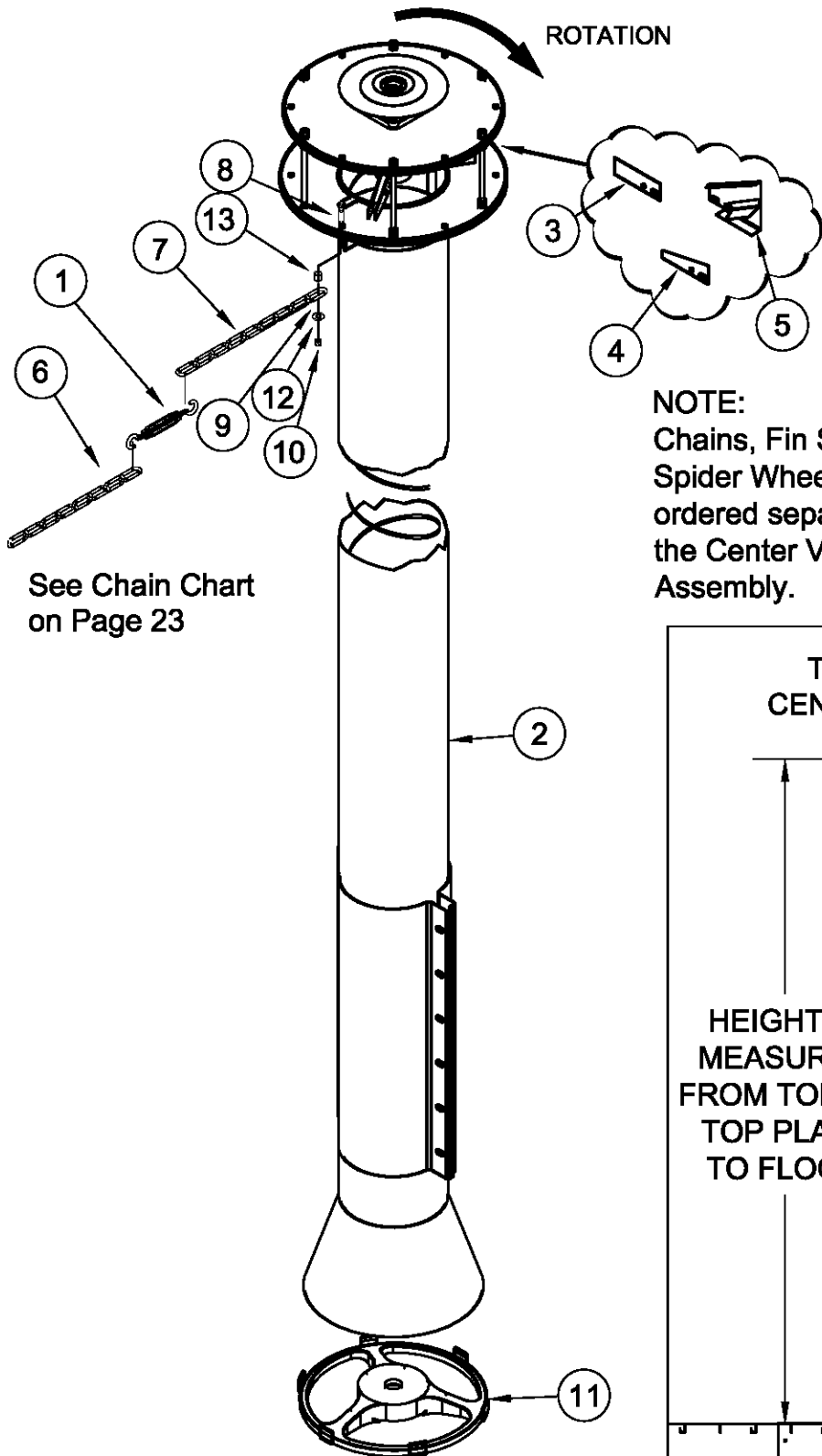
ASSEMBLY NUMBER	DESCRIPTION
460A-001A	8" Center Vertical, 10'8"
460B-001A	8" Center Vertical, 12'0"
460C-001A	8" Center Vertical, 14'0"
460H-001A	8" Center Vertical, 15'4"
460D-001A	8" Center Vertical, 16'9"
460E-001A	8" Center Vertical, 17'9"
460F-001A	8" Center Vertical, 18'5"
460G-001A	8" Center Vertical, 20'3"

-  
-  
-  
-  
SHORT  
MEDIUM  
TALL  
X-TALL

## 8" HARD SURFACE CENTER VERTICAL ASSEMBLY CHART

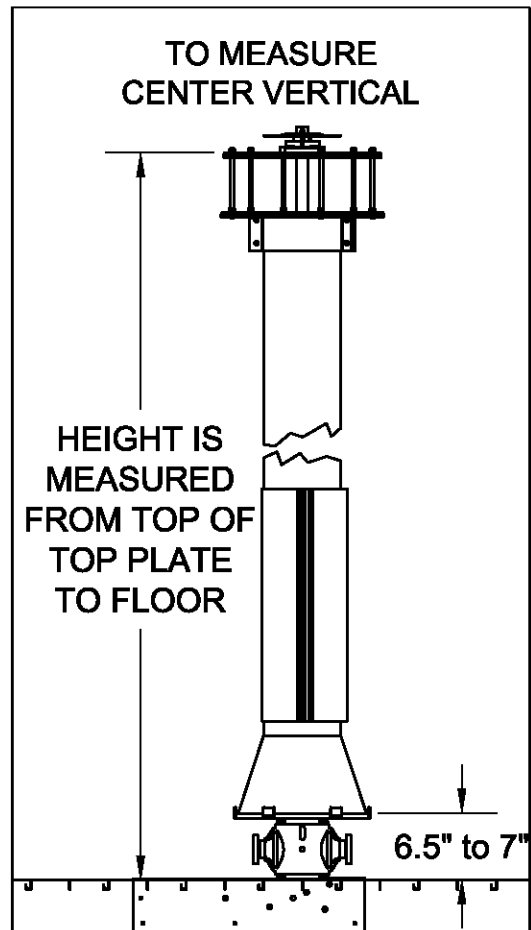
ASSEMBLY NUMBER	DESCRIPTION
480A-001A	8" Center Vertical, 10'8", H.S.
480B-001A	8" Center Vertical, 12'0", H.S.
480C-001A	8" Center Vertical, 14'0", H.S.
480H-001A	8" Center Vertical, 15'4", H.S.
480D-001A	8" Center Vertical, 16'9", H.S.
480E-001A	8" Center Vertical, 17'9", H.S.
480F-001A	8" Center Vertical, 18'5", H.S.
480G-001A	8" Center Vertical, 20'3", H.S.

# 8" CIRCULATOR II CENTER VERTICAL HARDWARE AND ACCESSORIES



See Chain Chart  
on Page 23

**NOTE:**  
Chains, Fin Sack, and  
Spider Wheel must be  
ordered separately from  
the Center Vertical  
Assembly.



# 8" CENTER VERTICAL (CIRCULATOR II)

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	Pickup Finger Weldment (RH)	1	460-002W	19
-	Hard Surface Pickup Finger Wldt. (RH)	-	124-002W	19
2	Cone Weldment	1	219-009W	20
3	Flite Weldment (RH)	1	See Chart	17
-	Hard Surface Flite Weldment (RH)	-	See Chart	17
4	Half Band, 8" x 24"	2	675-013P	-
5	Roll Pin, Double Hd, 3/8 X 2	1	F-1036-49	-
6	Tube, 8" OD	1	See Chart	17
7	Shield	1	217-062P	-
8	Plate, Bottom Weldment	1	219-007W	-
9	Spreader Wheel, Nodular Iron	1	124-008P	22
10	Top Plate	1	217-048P	-
11	Bolt, Spacer Assembly	6	217-042A	-
12	Bearing, 4 Hole Flange, 1-1/4" Bore	1	D-2002-02	-
13	Washer, Flat, 14 Ga. 1.875 X 1.281	6	F-8003-01	-
14	Washer, Flat, 10 Ga. 1.875 X 1.281	8	F-8003-02	-
15	Nut, Hx Yellow Plated, 1/2-13, Stover	4	F-1005-05	-
16	Capscrew, Hx, 1/2-13 X 1-1/2", Gr. 5	4	F-1526	-
17	Nut, Hx Yellow Plated, 3/8-16, Stover	28	F-1005-03	-
18	Capscrew, Hx, 1/4-20 X 1, Gr. 5	3	F-1015-05	-
19	Hub	1	217-016P	-
20	Key, Step	1	217-015P	-
21	Washer, Flat, Std, Steel, 3/8"	26	F-1009-03	-
22	Capscrew, Hx, 3/8-16 X 1-1/2", Gr. 5	14	F-1015-27	-
23	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28	-
24	Coupler	1	658-015P	-
25	Bolt, Socket Head, Shoulder, 1/2"	4	F-1014-02	-

## 8" NON HARD SURFACE FLITE WELDMENT CHART

WELDMENT NUMBER	DESCRIPTION
460A-003W	8" Center Vertical, 10'8"
460B-003W	8" Center Vertical, 12'0"
460C-003W	8" Center Vertical, 14'0"
460H-003W	8" Center Vertical, 15'4"
460D-003W	8" Center Vertical, 16'9"
460E-003W	8" Center Vertical, 17'9"
460F-003W	8" Center Vertical, 18'5"
460G-003W	8" Center Vertical, 20'3"

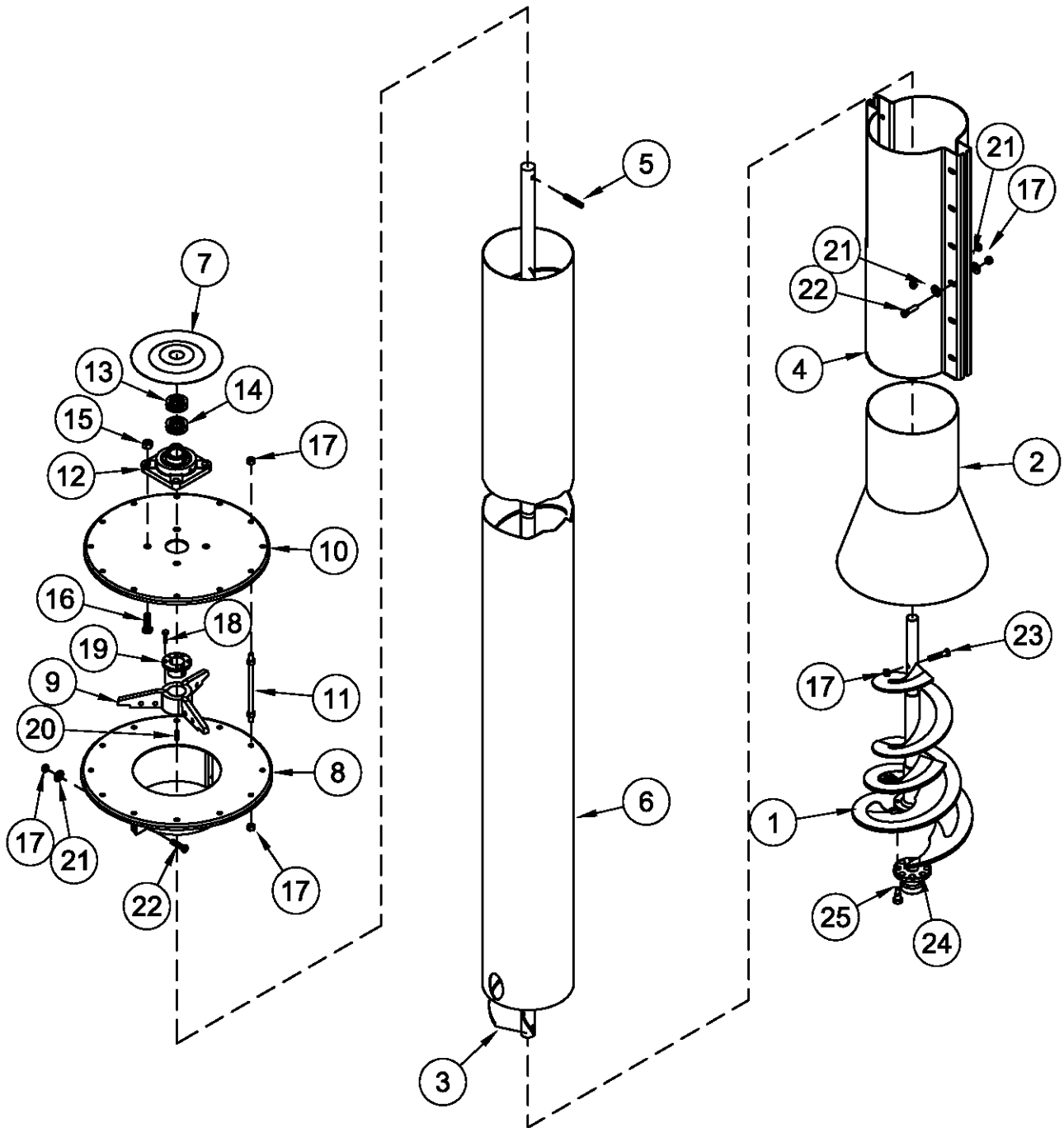
## 8" HARD SURFACE FLITE WELDMENT CHART

WELDMENT NUMBER	DESCRIPTION
480A-002W	8" Center Vertical, 10'8", H.S.
480B-002W	8" Center Vertical, 12'0", H.S.
480C-002W	8" Center Vertical, 14'0", H.S.
480H-002W	8" Center Vertical, 15'4", H.S.
480D-002W	8" Center Vertical, 16'9", H.S.
480E-002W	8" Center Vertical, 17'9", H.S.
480F-002W	8" Center Vertical, 18'5", H.S.
480G-002W	8" Center Vertical, 20'3", H.S.

## 8" TUBE CHART

PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION
460A-005P	Tube, 8" OD, 8' 2-5/8" Long	460D-005P	Tube, 8" OD, 14' 3-5/8" Long
460B-005P	Tube, 8" OD, 9' 6-5/8" Long	460E-005P	Tube, 8" OD, 15' 3-5/8" Long
460C-005P	Tube, 8" OD, 11' 6-5/8" Long	460F-005P	Tube, 8" OD, 15' 11-5/8" Long
460H-005P	Tube, 8" OD, 12' 10-5/8" Long	460G-005P	Tube, 8" OD, 17' 9-5/8" Long

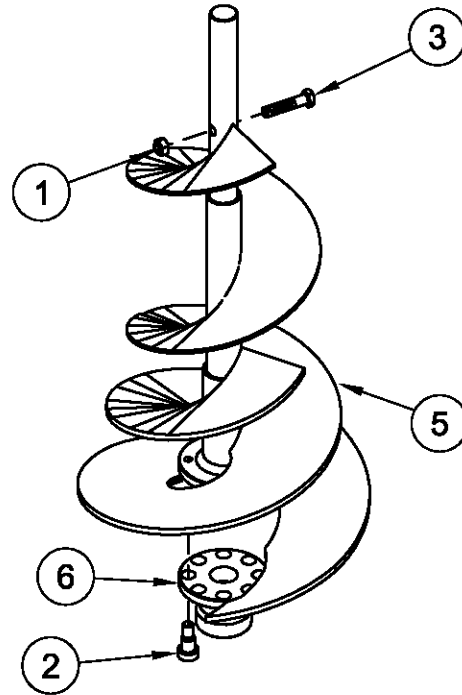
# 8" CENTER VERTICAL (CIRCULATOR II)



# 8" CIRCULATOR II PICK-UP FINGER KIT

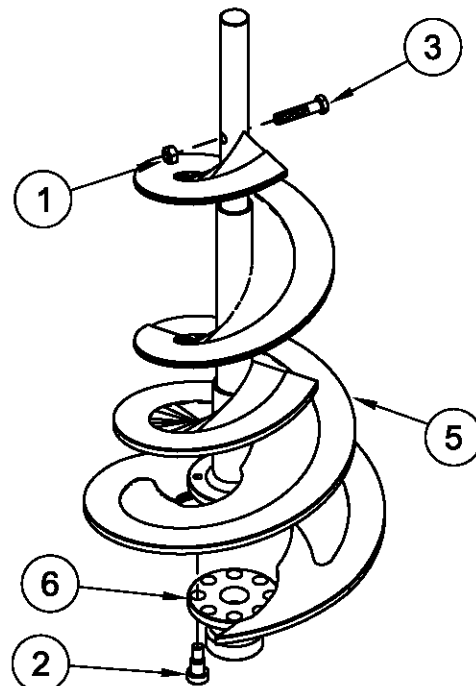
## 8" NON-HARD SURFACE PICK-UP FINGER KIT (RH) 423-299-001A

ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	124-010A
1	Nut, Hx Znc Plated, 3/8-16, Stover	2	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	4	F-1014-02
3	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28
-	-	-	-
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
-	Thread Locker	-	C-6037
5	Pick-up Finger Weldment (RH)	1	460-002W
6	WSCV Drive Coupler	1	658-015P



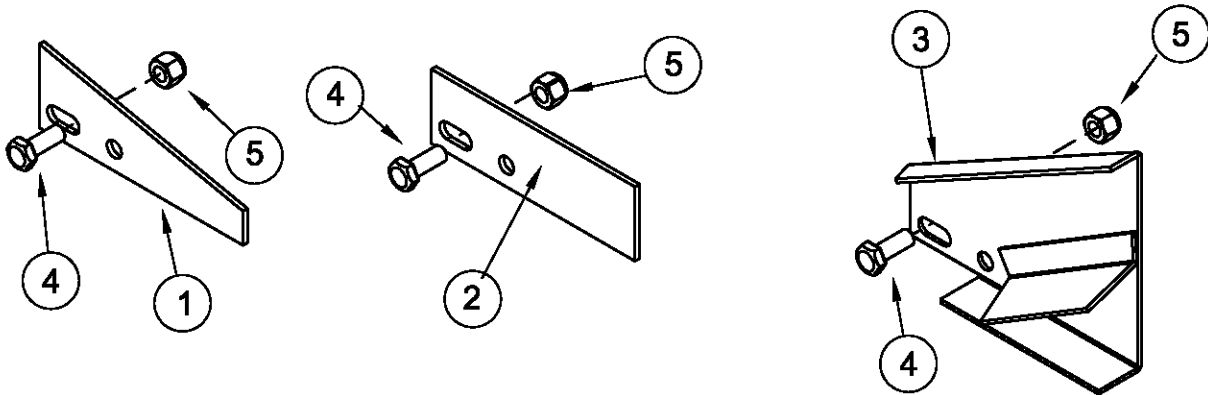
## 8" HARD SURFACE PICK-UP FINGER KIT (RH) 423-052-001A

ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	124-010A
1	Nut, Hx Znc Plated, 3/8-16, Stover	2	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	8	F-1014-02
3	Capscrew, Hx, 3/8-16 X 1-3/4", Gr. 5	2	F-1015-28
-	-	-	-
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
-	Thread Locker	-	C-6037
5	Pick-up Finger Weldment (RH)	1	124-002W
6	WSCV Drive Coupler	1	658-015P



# 8" CIRCULATOR II FIN SACK (226D-014A)

ITEM	DESCRIPTION	QTY	PART NO.
1	Spreader Fin, Small	3	10A-047P
2	Spreader Fin, Medium	3	10A-048P
3	Spreader Fin, Weldment	3	10-080W
4	Capscrew, Hx, 5/16-18 X 1, Gr. 5	6	F-1015-15
5	Nut, Hx Znc Plated, 5/16-16, Nyloc	6	F-1005-02

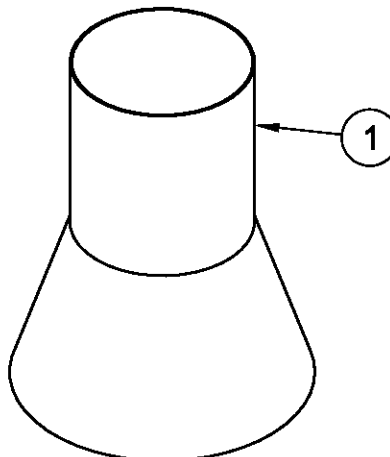


## 8" CONE KIT (423-066-001A)

ITEM	DESCRIPTION	QTY	PART NO.
1	8" Cone Weldment	1	219-009W

## 8" HCCV CONE KIT (423-411-001A)

ITEM	DESCRIPTION	QTY	PART NO.
1	8" HCCV Cone Wldt	1	711-015W



# HEAVY DUTY SPIDER WHEEL KIT

## (423-069-001A) CIRCULATOR II ONLY

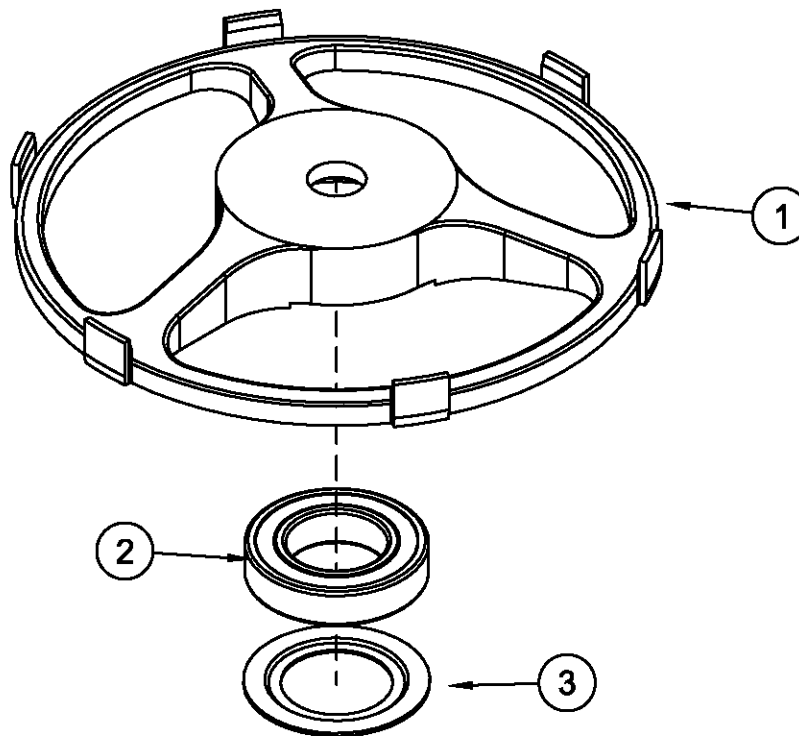
ITEM	DESCRIPTION	QTY	PART NO.
A	Heavy Duty Spider Wheel Assembly	1	223-003A
1	Heavy Duty Spider Wheel (Blue)	1	223-002P
2	Bearing, 2.1654 Bore, 3.9370 O.D	1	D-2020-01
3	Bearing Protector	1	223-006P

# HCCV SPIDER WHEEL KIT

## (423-412-001A)

High Capacity CV for 3-Sweep Units

ITEM	DESCRIPTION	QTY	PART NO.
A	HCCV Spider Wheel Assembly	1	711-014A
1	Heavy Duty Spider Wheel (Red)	1	711-026P
2	Bearing, 2.1654 Bore, 3.9370 O.D	1	D-2020-01
3	Bearing Protector	1	223-006P

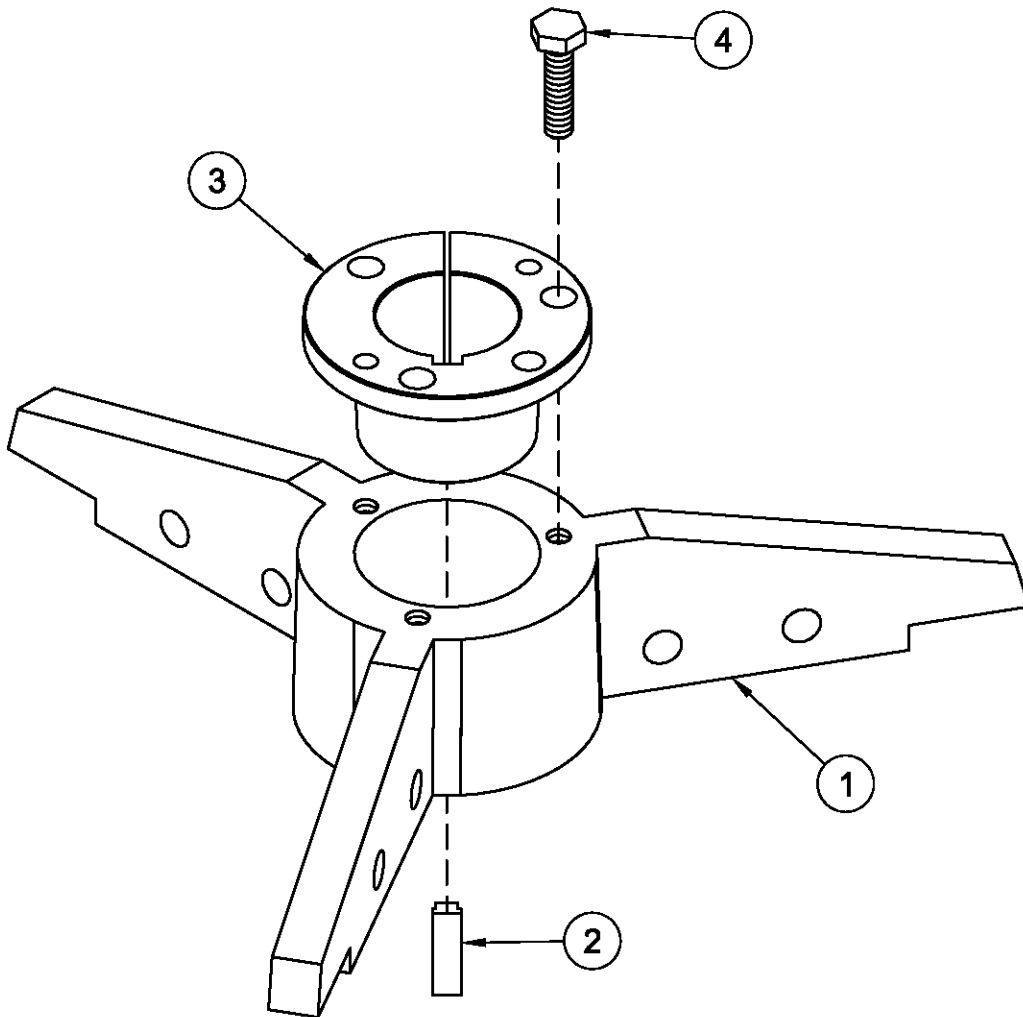




# SPREADER WHEEL KIT

(423-024-001A)

ITEM	DESCRIPTION	QTY	PART NO.
1	Spreader Wheel, Nodular Iron	1	124-008P
2	Key, Step	1	217-015P
3	Hub	1	217-016P
4	Capscrew, Hx, 1/4-20 X 1, Gr. 5	3	F-1015-05



# CHAIN & POP RIVET BOX

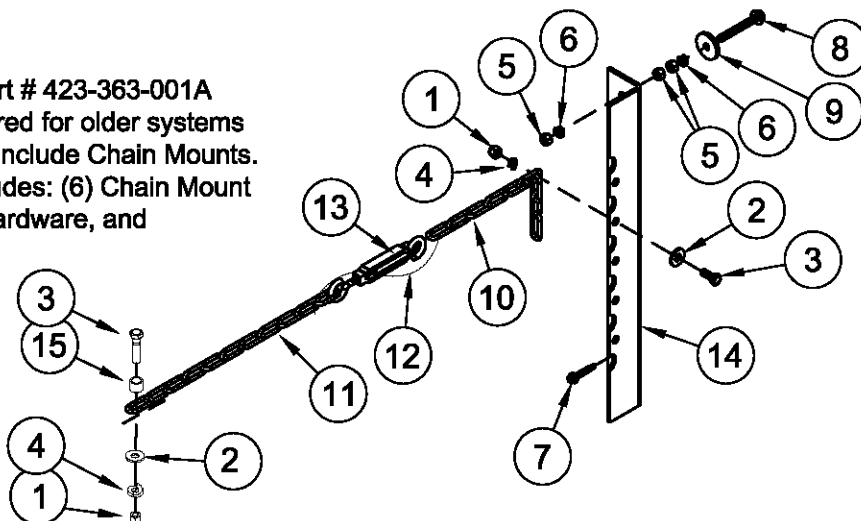
(450A-001A - 450E-001A)

CHAIN LENGTH CHART (ITEM 11)

BIN DIAMETER		PART NUMBER		DESCRIPTION		QTY.				
15'11"-24'9"		222Z-032P		Chain, 10' 6" Long		450A-001A (15'11"-24'9")	450B-001A (24'10"-34'0")	450C-001A (34'1"-42'0") 6"	450D-001A (34'1"-42'0") 8"	450E-001A (42'1"-52'0")
24'10"-34'0"		222Z-033P		Chain, 15' 0" Long						
34'1"-42'0"		222Z-034P		Chain, 19' 0" Long						
42'1"-52'0"		222-090P		Chain, 24' 0" Long						
ITEM	DESCRIPTION			PART NO.	450A-001A (15'11"-24'9")	450B-001A (24'10"-34'0")	450C-001A (34'1"-42'0") 6"	450D-001A (34'1"-42'0") 8"	450E-001A (42'1"-52'0")	
A	Sack, Chain Unit			684-013A	1	1	1	1	1	
1	Nut, Hex 3/8-16 UNC-2B			F-1011-03	6	6	6	6	6	
2	Washer, Flat, Std, Steel, 3/8"			F-1009-03	6	6	6	6	6	
3	Capscrew, Hx, 3/8-16-1-1/2", Gr. 5			F-1015-27	6	6	6	6	6	
4	Lockwasher, 3/8"			F-1019-03	6	6	6	6	6	
15	Spacer Bushing			208-025P	6	6	6	6	6	
A	Sack, Chain Unit, Large Chain			684-012A	1	1	1	1	1	
1	Nut, Hex 3/8-16, UNC-2B Nyloc			F-1011-03	6	6	6	6	6	
2	Washer, Flat, Std, Steel, 3/8"			F-1009-03	6	6	6	6	6	
3	Capscrew, Hx, 3/8-16 X 1 1/4, Gr. 5			F-1307	6	6	6	6	6	
4	Lockwasher, 3/8"			F-1019-03	6	6	6	6	6	
B	Chain Mount Hardware Sack			674-013A	1	1	1	1	1	
5	Nut, Hex 5/16-18 UNC-2B			F-1011-02	54	54	54	54	54	
6	Lockwasher, 5/16 Heavy Spring			F-1019-02	18	18	18	18	18	
7	Screw, Sht Metal, Blue #12 X 1"			F-1121	12	12	12	12	12	
8	Bin Bolt 5/16 X 2-1/2 Full Thread			F-1156	18	18	18	18	18	
9	Washer, 5/16" ID			606-348P	18	18	18	18	18	
10	Chain, 14" Long			222-098P	6	6	6	6	6	
11	Chain			See Chart	6	6	6	6	6	
12	Wire, 18" Long			F-9001-01	6	6	6	6	6	
13	Turnbuckles, 3/8			F-2013	6	6	6	6	6	
14	Chain Mount Bracket			674-009P	6	6	6	6	6	
-	Pop Rivet Sack, 50 Pcs.			349C-001A	4	4	9	9	10	
-	Control Rod Guide Assy, 8"			226-012A	-	-	-	1	1	
-	Sack, Horiz Stand			222-059A	-	-	-	1	1	
-	Half Band Stand			226-011P	-	-	-	2	2	
-	Stand, Horiz. Wldt, 8"			226-005W	-	-	-	1	1	
-										

**NOTE:**

Shivvers Part # 423-363-001A can be ordered for older systems that did not include Chain Mounts. This kit includes: (6) Chain Mount Brackets, Hardware, and Instructions.

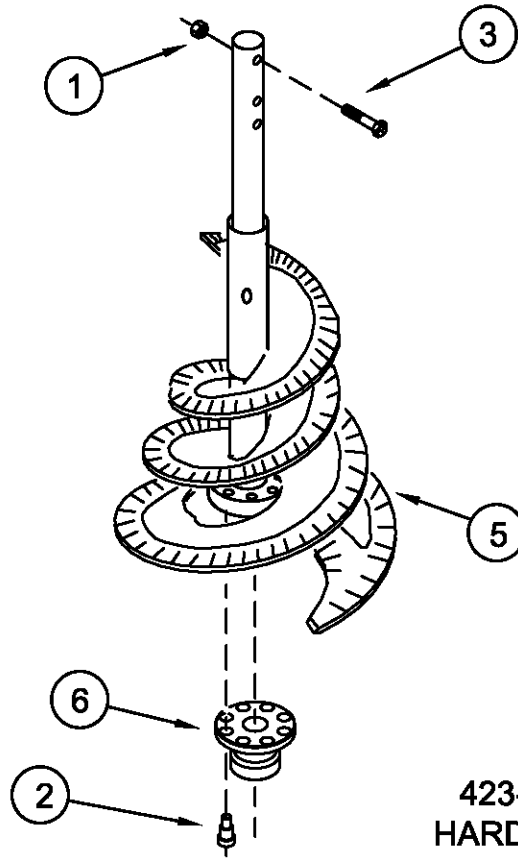


**NOTE:** Washer required for roof mounting only.

# PICK-UP FINGER KIT (HS)

(423-371-001A for 684 WSCV

423-410-001A for 711 HCCV



423-371-001A  
HARD SURFACE  
PICK-UP FINGER KIT (RH)

423-410-001A  
HARD SURFACE  
PICK-UP FINGER KIT (RH)

ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	675-012A
1	Nut, Hx Znc Plated, 3/8-16, Stover	3	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	8	F-1014-02
3	Capscrew, Hx, 3/8-16 X 2", Gr. 5	3	F-1073
-	Thread Locker	1	C-6037
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
5	Pick-up Finger Weldment (RH)	1	675-006W
6	WSCV Drive Coupler	1	658-015P

ITEM	DESCRIPTION	QTY	PART NO.
A	Hardware Sack, PU Finger	1	675-012A
1	Nut, Hx Znc Plated, 3/8-16, Stover	3	F-1005-03
2	Bolt, Socket Hd, Shoulder, 1/2"	8	F-1014-02
3	Capscrew, Hx, 3/8-16 X 2", Gr. 5	3	F-1073
-	Thread Locker	1	C-6037
-	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01
-	Washer, Flat, 10 Ga. 1.875 X 1.281	2	F-8003-02
5	Pick-up Finger Weldment (RH)	1	711-019W
6	WSCV Drive Coupler	1	658-015P

# 8" WSCV (684 SERIES) and HCCV (711 SERIES) HARDWARE AND ACCESSORIES

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	Turnbuckle, Hook Both Ends , 3/8" MINI	6	F-2013	23
2	Hard Surface Wide Spread CV Assy, 8"	1	See Chart	25
-	Fins	-	-	31
6	Chain	6	See Chart	23
7	Chain, 14" Long	6	222-098P	23
8	Capscrew, Hx 3/8 X1 1/2, Gr. 5	6	F-1015-27	23
9	Washer, Flat, Std, Steel, 3/8"	6	F-1009-03	23
10	Nut, Hx Znc Plated, 3/8-16	6	F-1011-03	23
11	Lockwasher, 3/8	6	F-1019-03	23
12	Spider Wheel Assembly (684 WSCV)	1	223-003A	21
12	Spider Wheel Assembly (711 HCCV)	1	711-014A	21

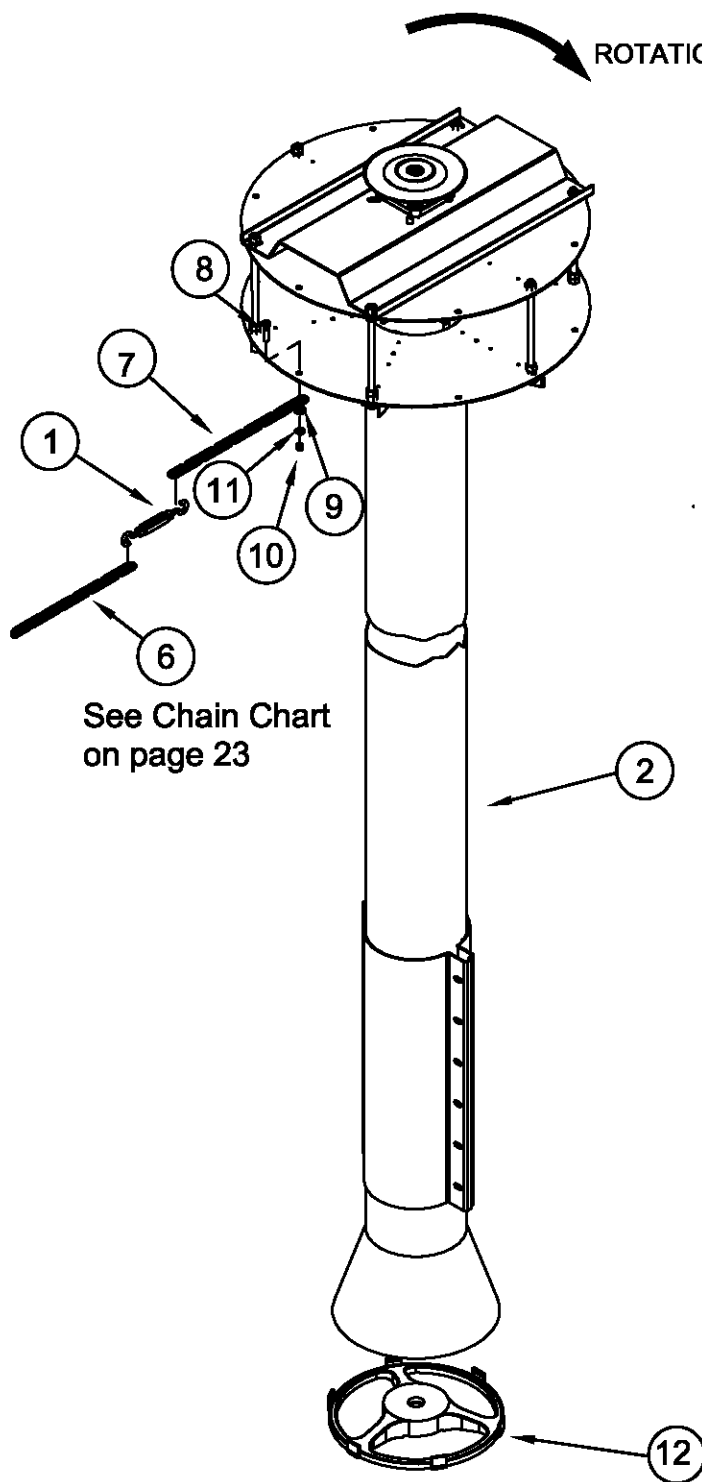
## 684 WIDE SPREAD CENTER VERTICAL ASSEMBLY CHART

	ASSEMBLY NUMBER	DESCRIPTION
TALL	684F-001AMOD	8" Center Vertical, 18'5", H.S.
X-TALL	684G-001AMOD	8" Center Vertical, 20'3", H.S.

## 711 HI-CAPACITY CENTER VERTICAL ASSEMBLY CHART

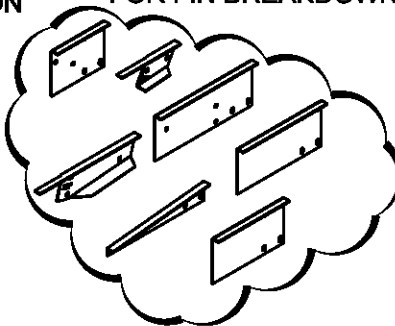
	ASSEMBLY NUMBER	DESCRIPTION
TALL	711F-001AMOD	8" Center Vertical, 18'5", H.S.
X-TALL	711G-001AMOD	8" Center Vertical, 20'3", H.S.

# 8" WIDE SPREAD CENTER VERTICAL 684 SERIES (Hi Torque Use Only) HARDWARE AND ACCESSORIES

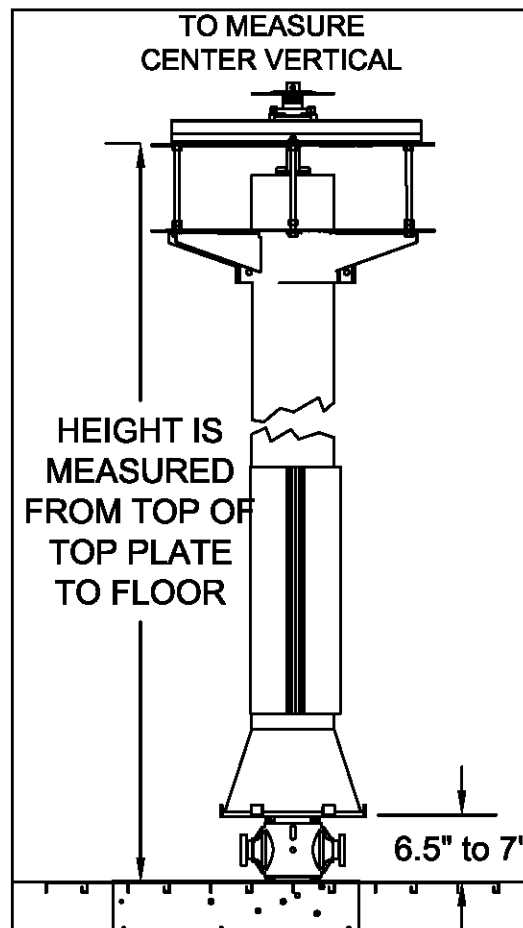


See Chain Chart  
on page 23

SEE PAGE 31  
FOR FIN BREAKDOWN



NOTE:  
Chains, Fin Sack, and  
Spider Wheel must be  
ordered separately from  
the Center Vertical  
Assembly.



# 8" WIDE SPREAD CENTER VERTICAL 684 SERIES (for Circ-2 High Torque Units)

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	Pickup Finger Weldment (RH)(HS)	1	675-006W	24
2	Cone Weldment	1	219-009W	20
3	Flite Weldment (RH)(HS)	1	See Chart	27
-	--	-	--	-
5	Roll Pin, Double Hd, 3/8 X 2	1	F-1036-49	-
6	Tube, 8" OD	1	See Chart	27
7	Shield	1	217-062P	-
8	Plate, Bottom	6	658-070P	-
10	WSCV Top Plate	1	658-011P	-
11	Bolt, Spacer Assembly	6	658-012P	-
12	Bearing, 4 Hole Flange, 1-1/4" Bore	1	D-2002-02	-
13	Washer, Flat, 14 Ga. 1.875 X 1.281	2	F-8003-01	-
14	Washer, Flat, 10 Ga. 1.875 X 1.281	5	F-8003-02	-
15	Nut, Hx Znc Plated, 1/2-13, Stover	4	F-1005-05	-
16	Capscrew, Hx, 1/2-13 X 1-1/2", Gr. 5	4	F-1526	-
17	Nut, Hx Znc Plated, 3/8-16, Stover	15	F-1005-03	-
18	Nut, Nyloc, 1/2-13"	12	F-1378	-
19	Top Plate Reinforcement	1	658-010P	-
21	Washer, Flat, Std, Steel, 3/8"	24	F-1009-03	-
22	Capscrew, Hx, 3/8-16 X 1-1/2", Gr. 5	12	F-1015-27	-
23	Capscrew, Hx, 3/8-16 X 2", Gr. 5	3	F-1073	-
24	Coupler	1	658-015P	-
25	Bolt, Socket Head, Shoulder, 1/2"	8	F-1014-02	-
26	Half Band, 8" x 24"	2	675-013P	-
27	Capscrew, Hx, 5/16-18 x 3/4", Gr.5	24	F-1546	-
28	Nut, Nyloc, 5/16-18"	24	F-1005-02	-
29	Flat Washer, 5/16"	48	F-1009-02	-

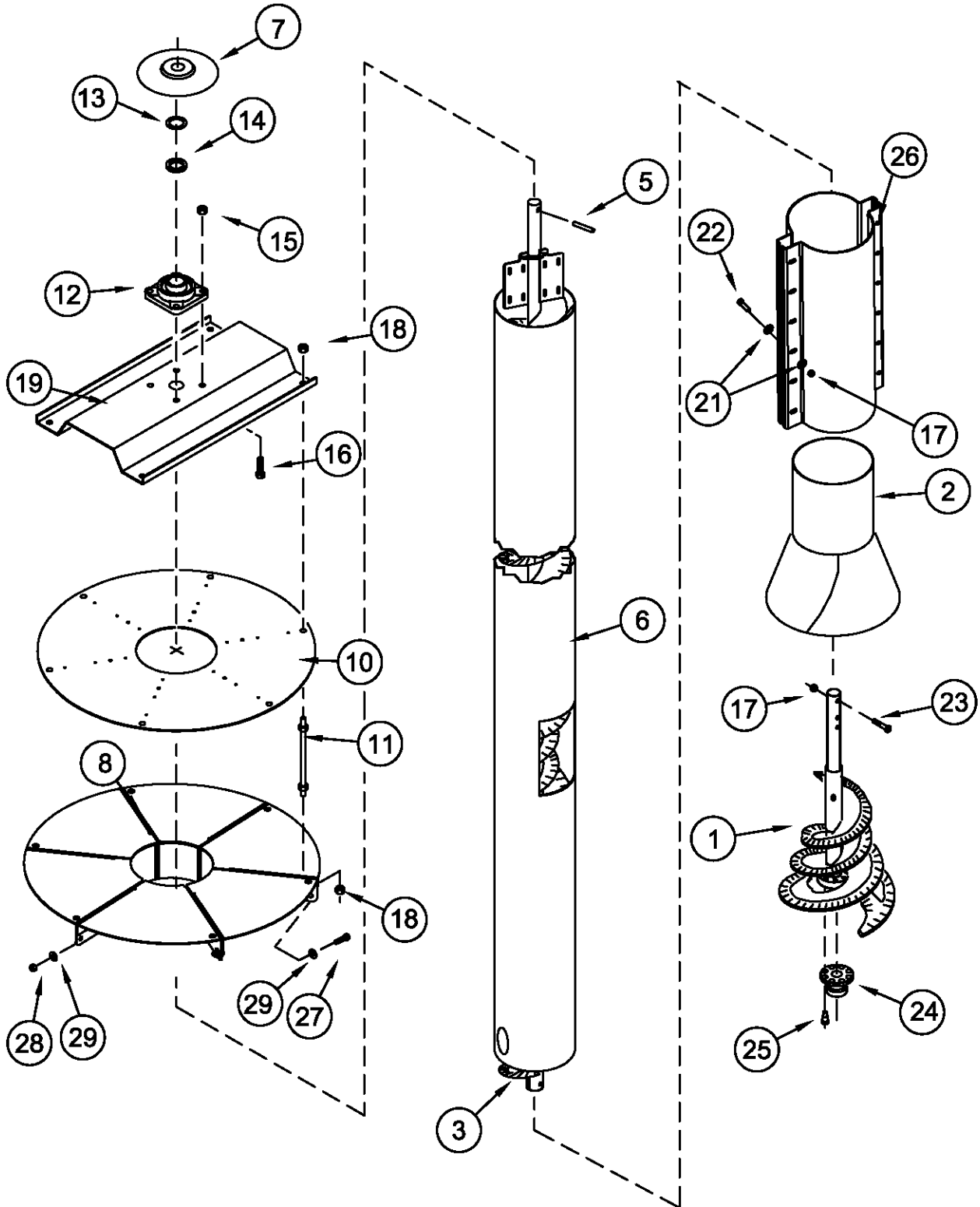
## 8" WSCV FLITE WELDMENT CHART

WELDMENT NUMBER	DESCRIPTION
684F-002WMOD	8" Center Vertical, 18'5"
684G-002WMOD	8" Center Vertical, 20'3"

## 8" TUBE CHART

PART NUMBER	DESCRIPTION
684F-003PMOD	Tube, 8" OD, 15' 6-11/16" Long
684G-003PMOD	Tube, 8" OD, 17' 4 11/16" Long

# 8" WIDE SPREAD CENTER VERTICAL 684 SERIES



# 8" HI-CAPACITY CENTER VERTICAL

## 711 SERIES (for 3 Sweep Units)

ITEM	DESCRIPTION	QTY	PART NO.	BREAK DOWN PAGE #
1	HCCV Pickup Finger Weldment (RH)(HS)	1	711-019W	24
2	HCCV Cone Weldment	1	711-015W	20
3	Flite Weldment (RH)(HS)	1	See Chart	29
4	CV Bearing Bushing	1	711-028P	-
5	Roll Pin, Double Hd, 3/8 X 2	1	F-1036-49	-
6	Tube, 8" OD	1	See Chart	29
7	Shield	1	217-062P	-
8	Plate, Bottom	6	658-070P	-
10	WSCV Top Plate	1	658-011P	-
11	Bolt, Spacer Assembly	6	658-012P	-
*12	Bearing, 4 Hole Flng., 1-5/8" Bore in Kit	1	423-418-001A	-
13	Washer, Flat, 14 Ga. 1.875 X 1.281	3	F-8003-01	-
14	Washer, Flat, 10 Ga. 1.875 X 1.281	3	F-8003-02	-
15	Nut, Hx Znc Plated, 1/2-13, Stover	4	F-1005-05	-
16	Capscrew, Hx, 1/2-13 X 1-1/2", Gr. 5	4	F-1526	-
17	Nut, Hx Znc Plated, 3/8-16, Stover	15	F-1005-03	-
18	Nut, Nyloc, 1/2-13"	12	F-1378	-
19	Top Plate Reinforcement	1	658-010P	-
21	Washer, Flat, Std, Steel, 3/8"	24	F-1009-03	-
22	Capscrew, Hx, 3/8-16 X 1-1/2", Gr. 5	12	F-1015-27	-
23	Capscrew, Hx, 3/8-16 X 2", Gr. 5	3	F-1073	-
24	Coupler	1	658-015P	-
25	Bolt, Socket Head, Shoulder, 1/2"	8	F-1014-02	-
26	Half Band, 8" x 24"	2	675-013P	-
27	Capscrew, Hx, 5/16-18 x 3/4", Gr.5	24	F-1546	-
28	Nut, Nyloc, 5/16-18"	24	F-1005-02	-
29	Flat Washer, 5/16"	48	F-1009-02	-
30	Set Screw, 5/16-24 x 1"	2	F-2171	-

\* Bearing (#12) sold in kit with bearing bushing (#4) and washers (#13, #14)

### 8" WSCV FLITE WELDMENT CHART

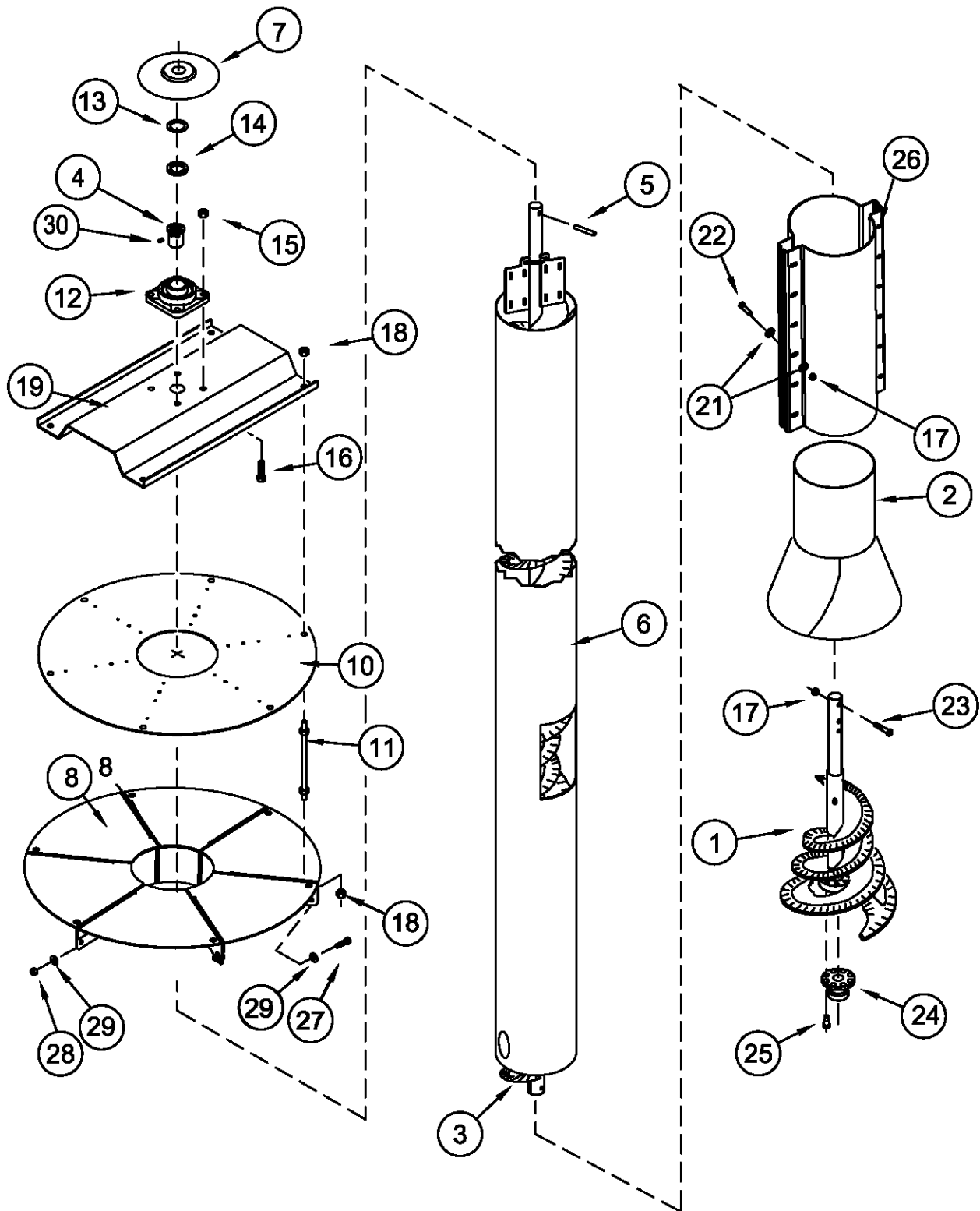
WELDMENT NUMBER	DESCRIPTION
684F-002WMOD	8" Center Vertical, 18'5"
684G-002WMOD	8" Center Vertical, 20'3"

### 8" TUBE CHART

PART NUMBER	DESCRIPTION
684F-003PMOD	Tube, 8" OD, 15' 6-11/16" Long
684G-003PMOD	Tube, 8" OD, 17' 4 11/16" Long

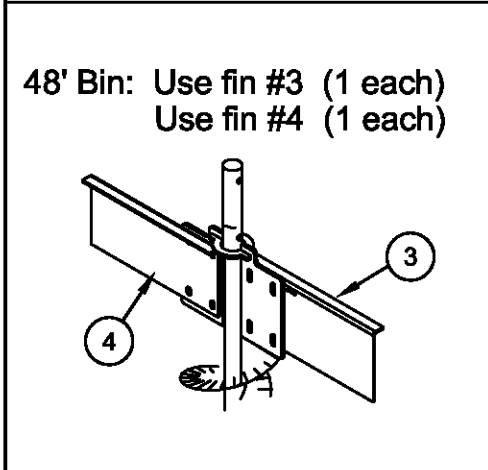
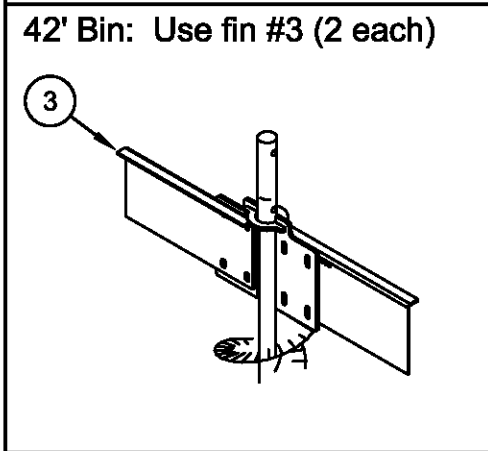
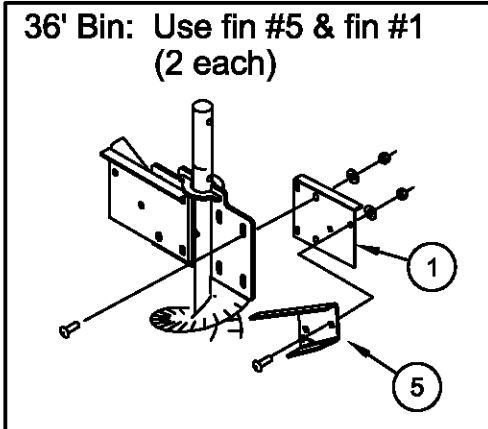


# 8" HI-CAPACITY CENTER VERTICAL 711 SERIES

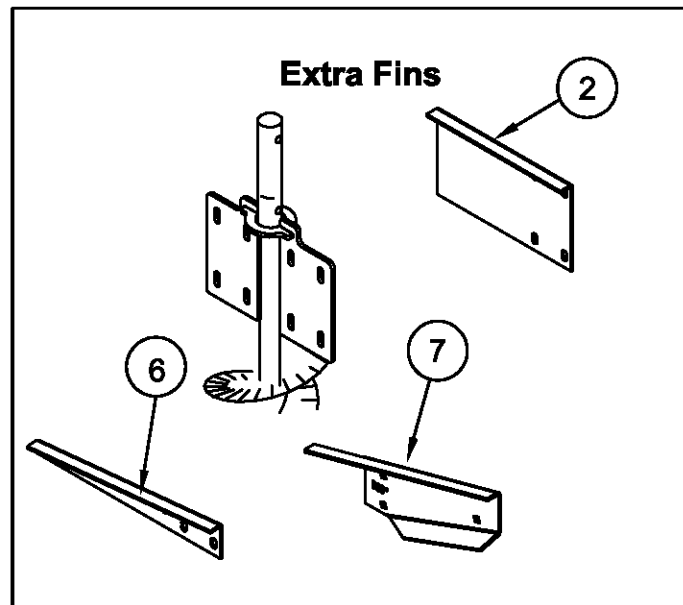


# 684 AND 711 SERIES CENTER VERTICAL FIN SACK (658-008A)

Shown below are suggested Fin configurations for drying corn in Other grains and other bin sizes may require other configurations..



FIN SACK			
ITEM	DESCRIPTION	QTY	PART #
1	WSCV: FIN #1 -6"	2	658-021P
2	WSCV: FIN #2 -8"	1	658-022P
3	WSCV: FIN #3 -9.5"	2	658-023P
4	WSCV: FIN #4 -11"	1	658-024P
5	WSCV: FIN #5 -LIFT SMALL	2	658-025P
6	WSCV: FIN #6 -ANG FLAT	1	658-026P
7	WSCV: FIN #7 -LIFT LARGE	1	658-027P
8	CARRIAGE BOLT, 1/4 X 3/4"	12	F-1823
9	1/4" FLAT WASHER	12	F-1009-01
10	1/4-20 LOCK NUT	12	F-1005-01



If your Center Vertical has four Fin Plates, you should cut two off opposite each other so your new configuration is as shown above.

Bolt the spreader fins on the spreader wheel of the center vertical tube as recommended for your bin diameter. Fins should be 1/4" above the center vertical bottom plate.

**NOTE:**

\* Always use fins #5 & 1 where flite and fin mounting plate meet.

\* Save the extra fins. It may be necessary to use them to adjust for more optimum spread. They may be used in any combination.

