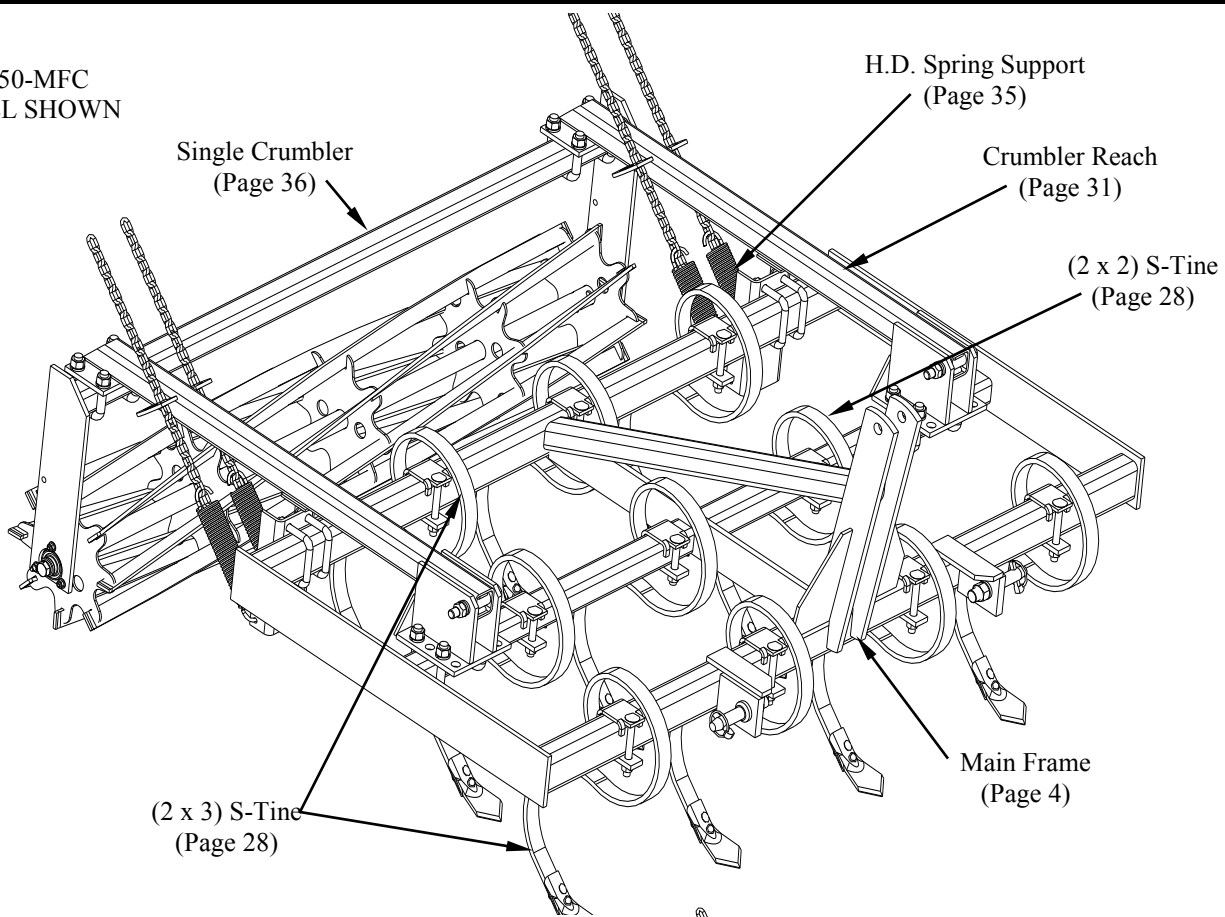


TABLE OF CONTENTS

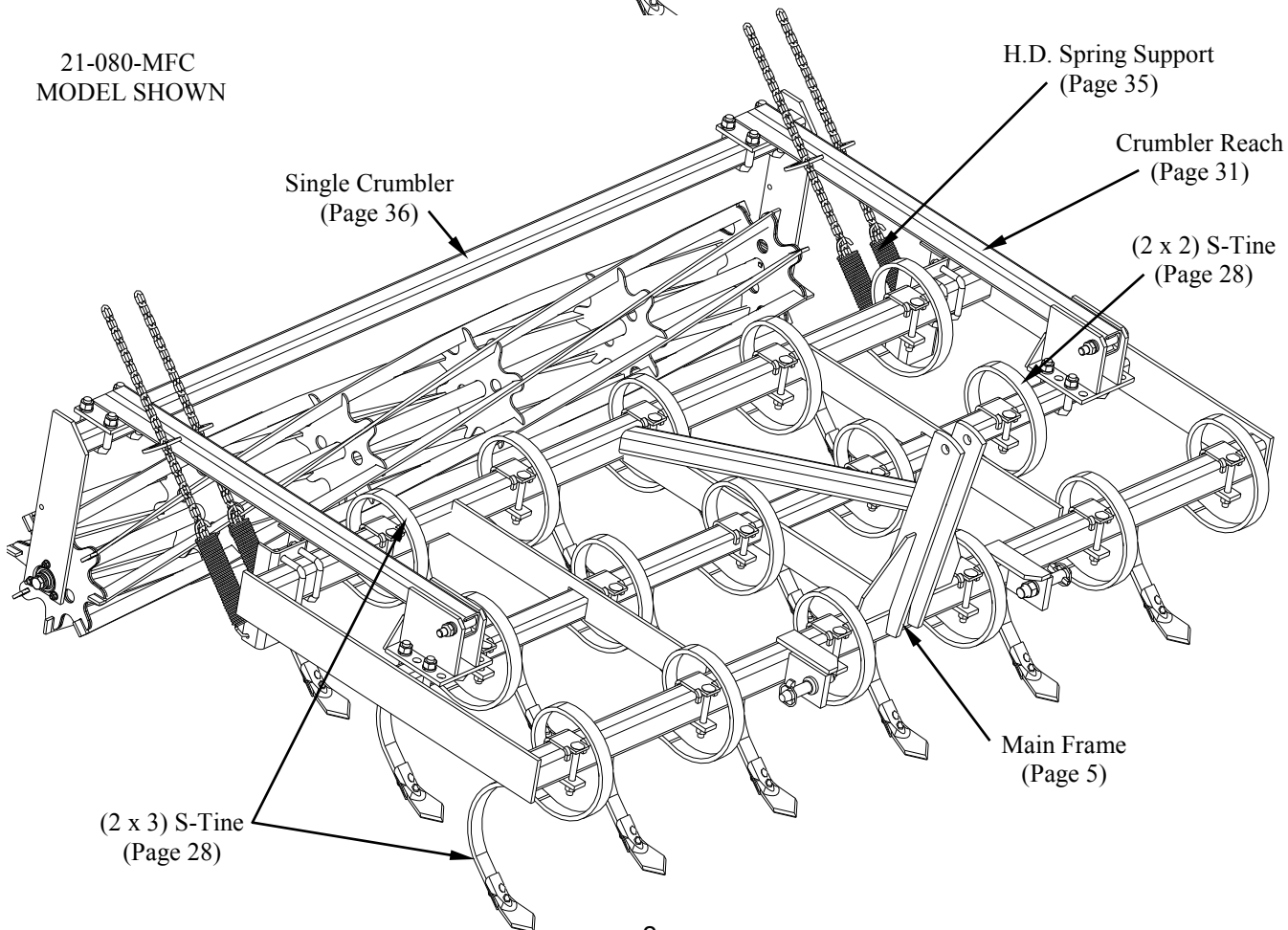
MINI FIELD CULTIVATOR	2-3
Main Frames, 12 Shank & 16 Shank	4-5
LIFT-TYPE RIGID FIELD CULTIVATORS & EXTENSIONS	6
RIGID BAR MAST	7
TENSION STRAPS (19 FOOT)	8
LIFT TYPE MAIN FRAME, (For 76", 108", 148", 172", 188", 212", & 236")	9-10
LT & RT WING (1 FOOT)	11
LT & RT WING (2 FOOT)	11
LT & RT WING (3-FOOT)	12
LT & RT WING (3 1/2 FOOT)	13
LT & RT WING (4 1/2 FOOT)	13
PULL-TYPE RIGID FIELD CULTIVATORS & EXTENSIONS	14
118" PULL TYPE MAIN FRAME	15
18 1/2" (PULL TYPE) RIGID CULTIVATOR WING	16
28 1/2" (PULL TYPE) RIGID CULTIVATOR WING	17
LIFT-TYPE FOLDING FIELD CULTIVATORS & WINGS & EXTENSIONS	
PULL-TYPE FOLDING FIELD CULTIVATORS & WINGS & EXTENSIONS	18
FOLDING TOOL BAR MAST	19
TONGUE ASSEMBLY (FOLDING)	20
FOLDING MAIN FRAME, (For 200", 236", 260" 276" & 316")	21-22
LT & RT 60" FOLDING WINGS	23
LT & RT 16" WING EXTENSION (FOLDING)	24
LT & RT 36" WING EXTENSION (FOLDING)	24
SHANK BOLT-ON EXTENSION (FOLDING)	25
COMPONENTS FOR ALL MACHINES	26
S-TINE BUNDLE	26-29
SWEEPS	29-30
CRUMBLER REACH (For Mini Field Cultivators)	31
CRUMBLER REACH ASSEMBLY (For Mini Skip-Row Cultivators)	32
SINGLE CRUMBLER MOUNTING BUNDLE (All Machines but Mini Cultivators)	33
REACH EXTENSION (Optional)	34
H.D. SPRING SUPPORT (For all Models)	35
SINGLE CRUMBLER ASSEMBLY (For Mini Field Cultivators)	36-37
S-TINE FIELD CULTIVATOR CRUMBLER I.D. CHART	38
CRUMBLER ASSEMBLY (For Machines Prior to 1986)	39
CRUMBLER ASSEMBLY (For Machines From 1986 to Present)	40-43
GAUGE WHEEL (For Rigid & Folding Pull-Type Field Cultivators)	44-45
5 x 8 GAUGE WHEEL (2 X 4) (Used on Machine Prior to 1988)	46
8 x 8 GAUGE WHEEL (2 X 4) (Used on Machine From 1988 to Present)	47
8 x 10 GAUGE WHEEL (2 X 4) & HARDWARD BUNDLES	48-49
S.W. RIGID COULTER	50-51
F.C. RIGID COULTER MOUNT	51
4 X 4 & 4 X 7 (60" & 88") MARKER	52
F.C. REAR MARKER ASSEMBLY	53
ROW MARKER SWEEP & BLOCK ASSEMBLY	54
TRANSPORT PIPE (FOLDING)	55
REFLECTOR BUNDLE	55
HYDRAULIC LAYOUTS AND CYLINDER BREAKDOWNS	56
PLUMBING SCHEMATIC (For Lift-Type Folding)	57
PLUMBING SCHEMATIC (For Pull-Type Folding) (Prior to 2009)	58-59
PLUMBING SCHEMATIC (For Pull-Type Folding) (2009 to Present)	60-61
REPHASE CYLINDERS (Lift Cylinder Pull-Type) (Prior to 2009)	62-63
3 X 8 CYLINDERS (Lift Cylinder Pull-Type) (2009 to Present)	64
4 X 8 TIE BOLT HYDRAULIC CYLINDER (For Wings) (2002 to 2013)	65-67
4 X 8 TIE BOLT HYDRAULIC CYLINDER (For Wings) (2014 to Present)	68

MINI FIELD CULTIVATORS

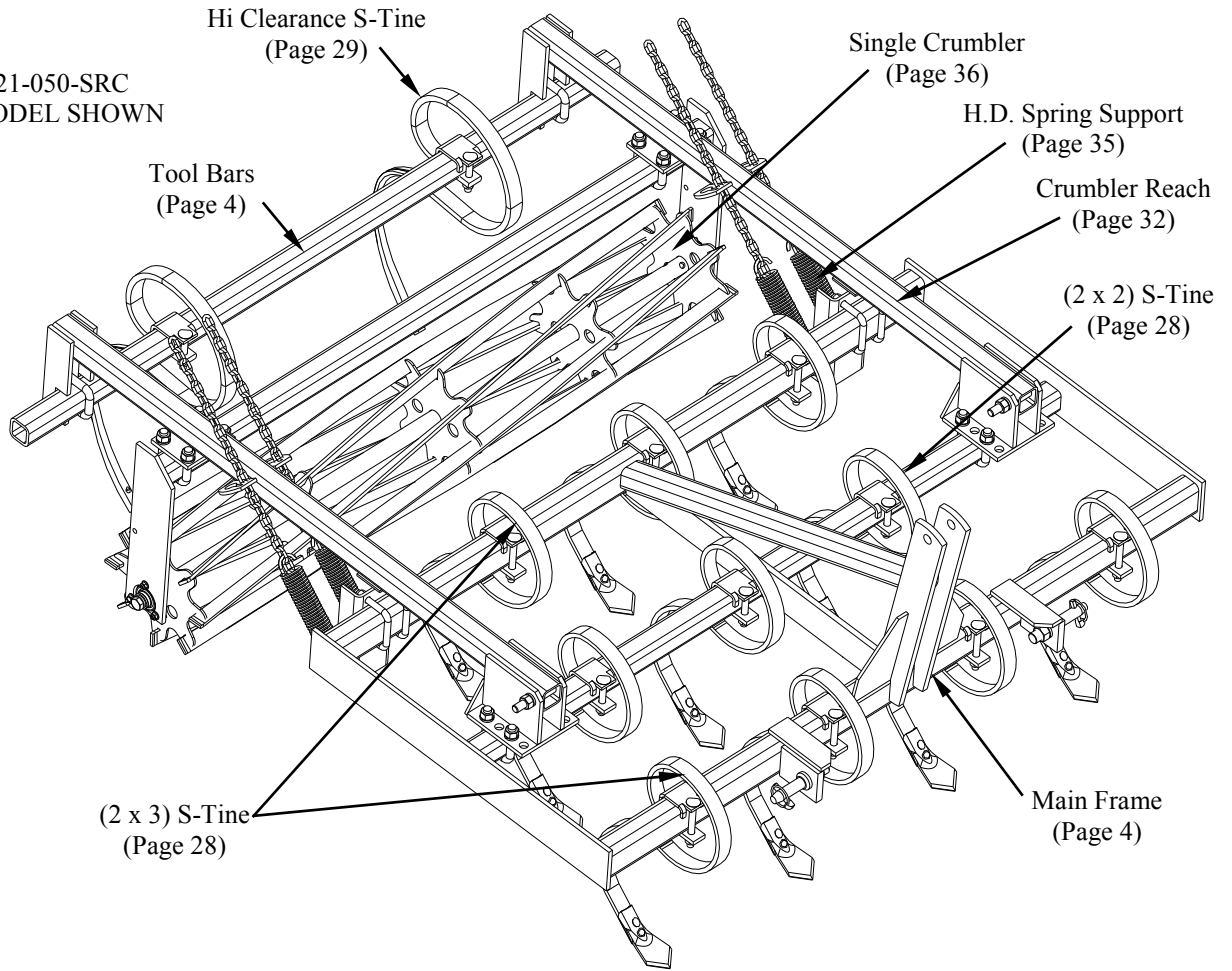
21-050-MFC
MODEL SHOWN



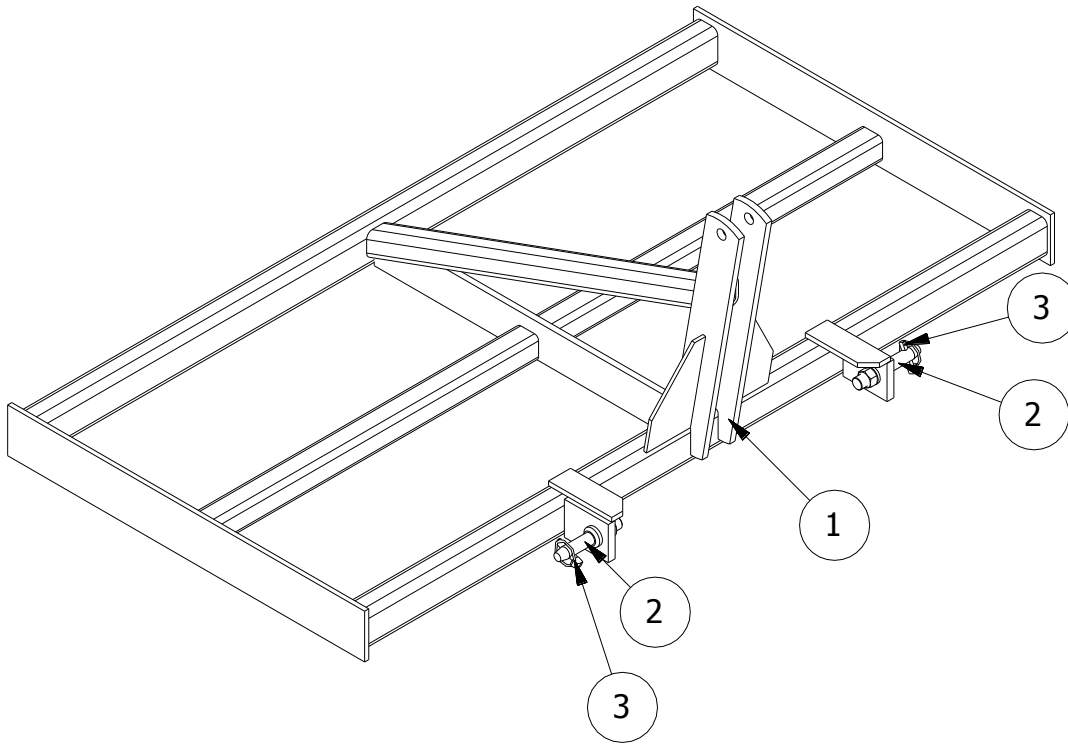
21-080-MFC
MODEL SHOWN



21-050-SRC
MODEL SHOWN

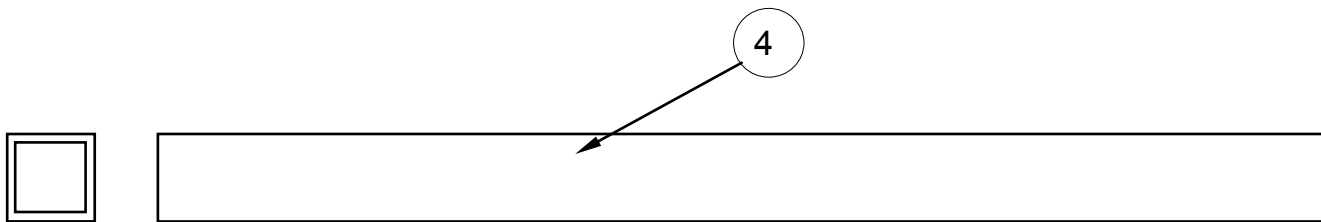


4'-2" & 5'-0" MINI MAIN FRAME (12 SHANK)
(21-082-081)



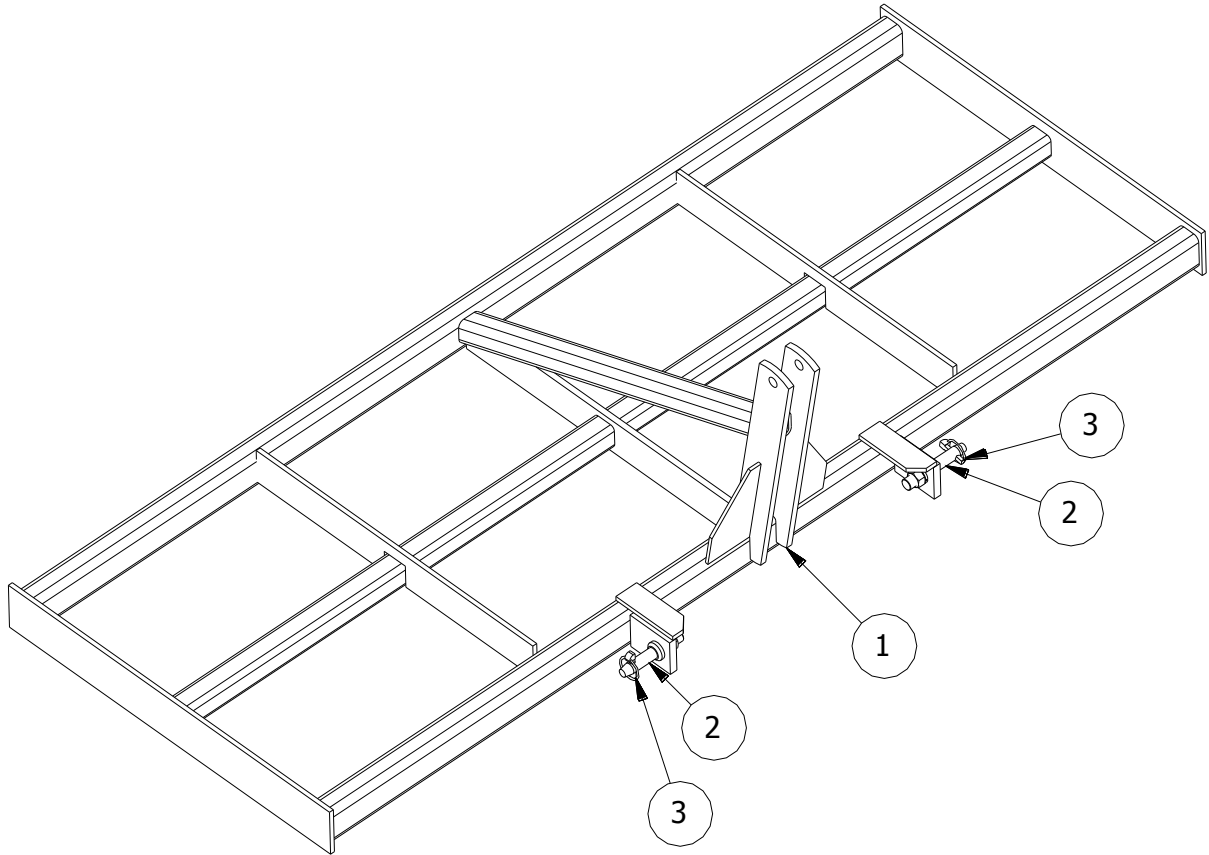
ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-094		12-SHANK MINI-FIELD CULTIVATOR	1
2	24-050-003		CAT. I LIFT ARM PIN	2
3	02-050-002		KLIK PIN, 7/16 X 1 3/4	2

2" X 2" TOOL BARS



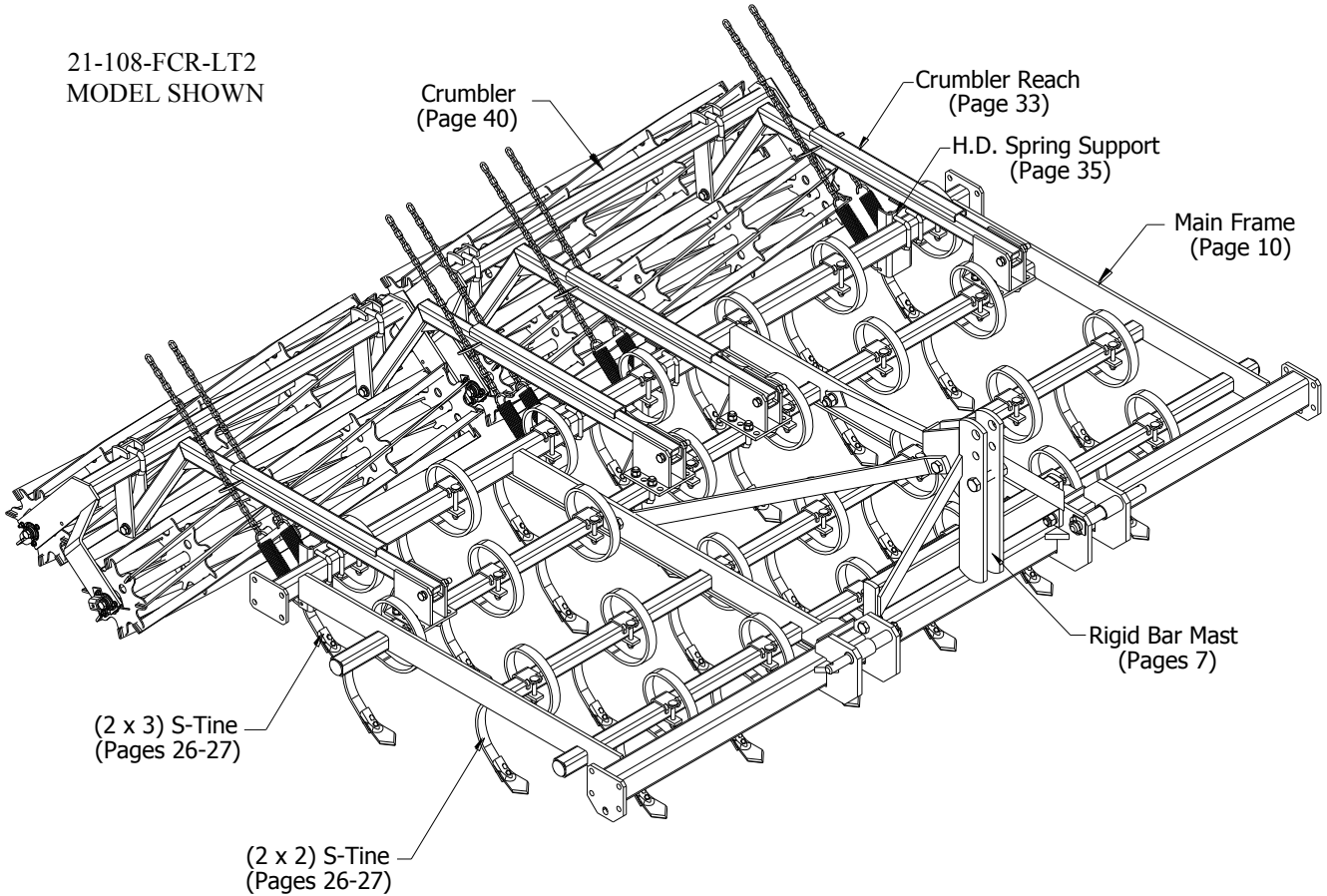
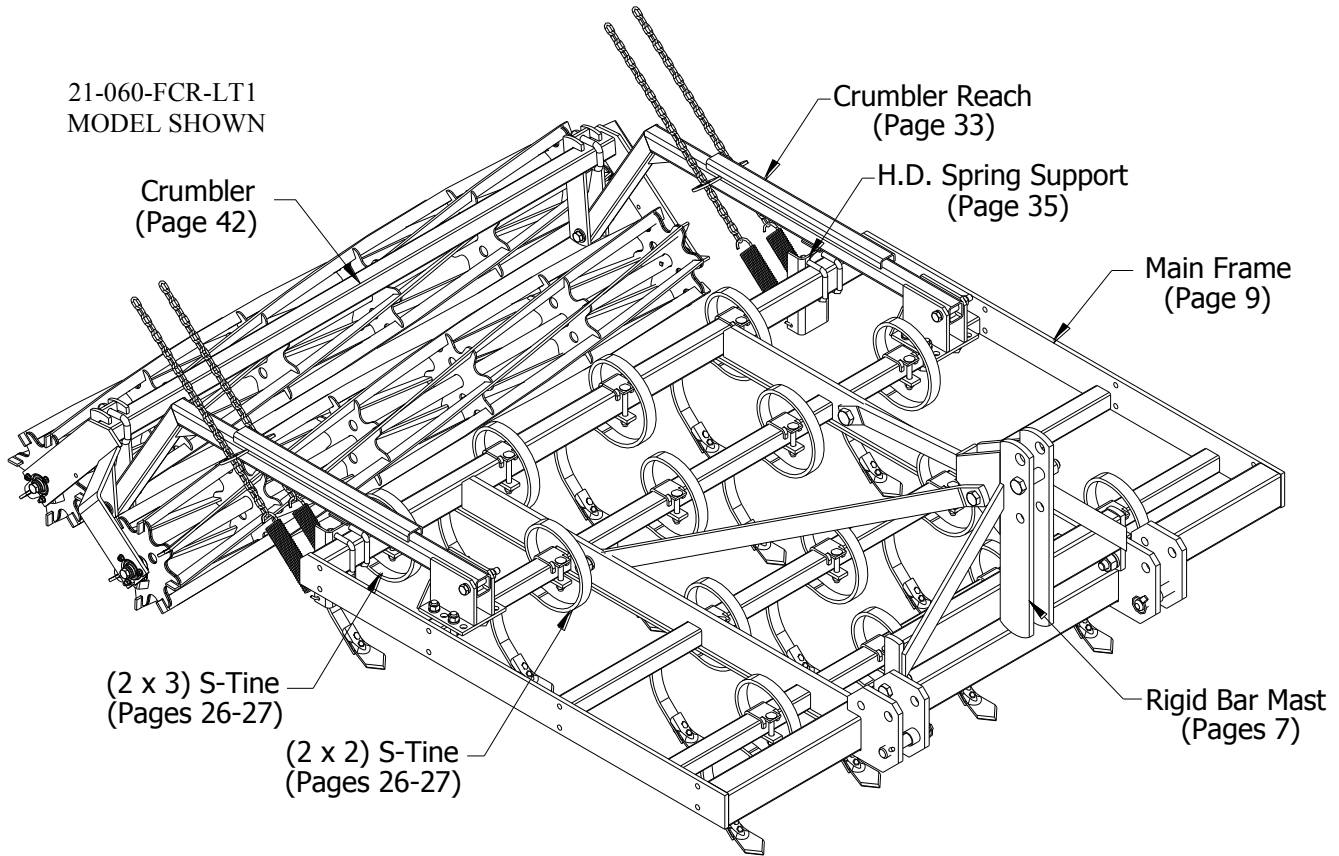
ITEM	PART NO.	DESCRIPTION
4	04-024-131	62 1/2" X 2" SQ TOOL BAR
	21-024-073	76" X 2" SQ TOOL BAR
	02-024-061	90" X 2" SQ TOOL BAR

6'-8" MINI MAIN FRAME (16 SHANK)
(21-082-082)

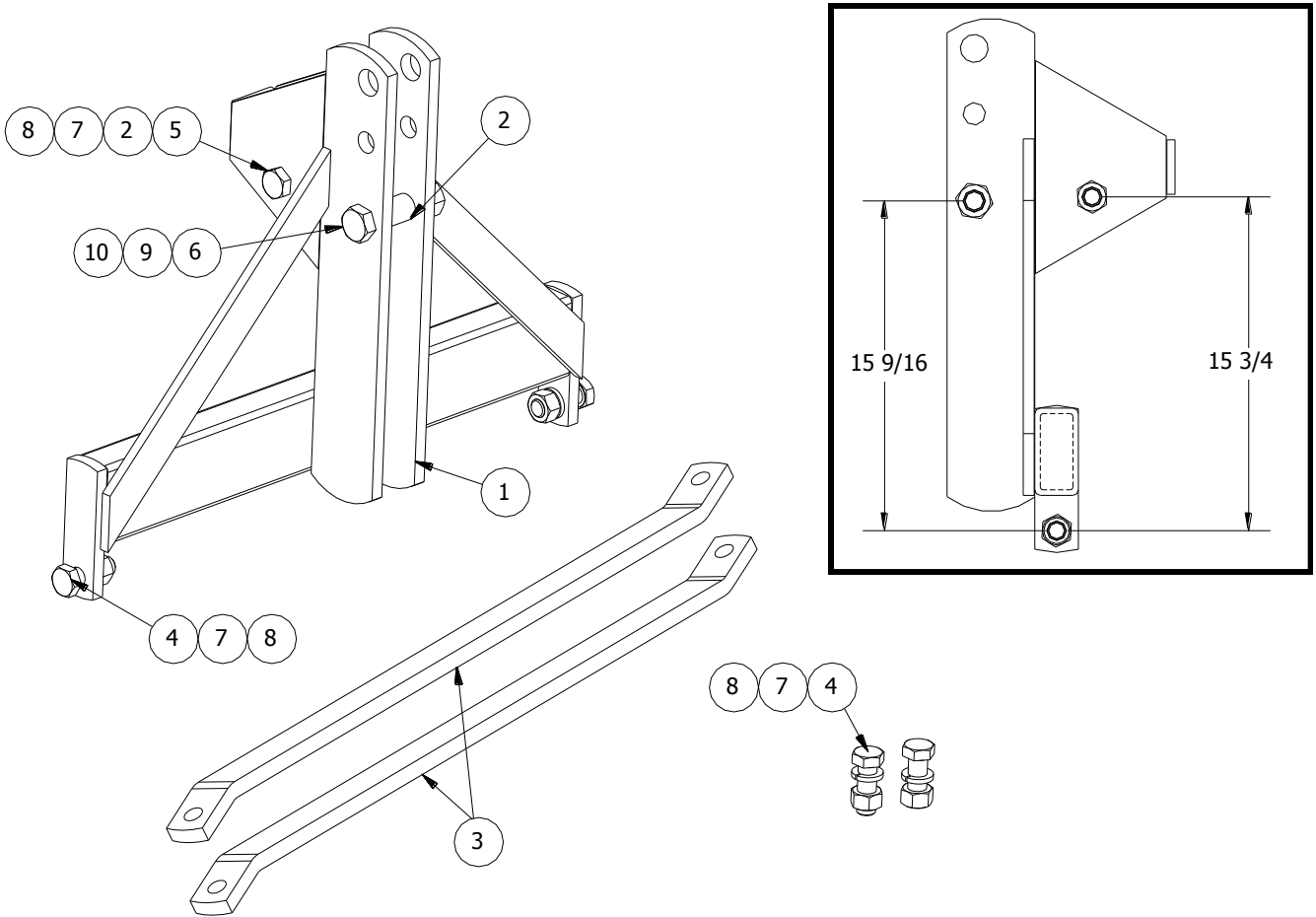


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-095		16-SHANK MINI-FIELD CULTIVATOR	1
2	24-050-003		CAT. I LIFT ARM PIN	2
3	02-050-002		KLIK PIN, 7/16 X 1 3/4	2

LIFT-TYPE RIGID FIELDS CULTIVATORS AND WING EXTENSIONS

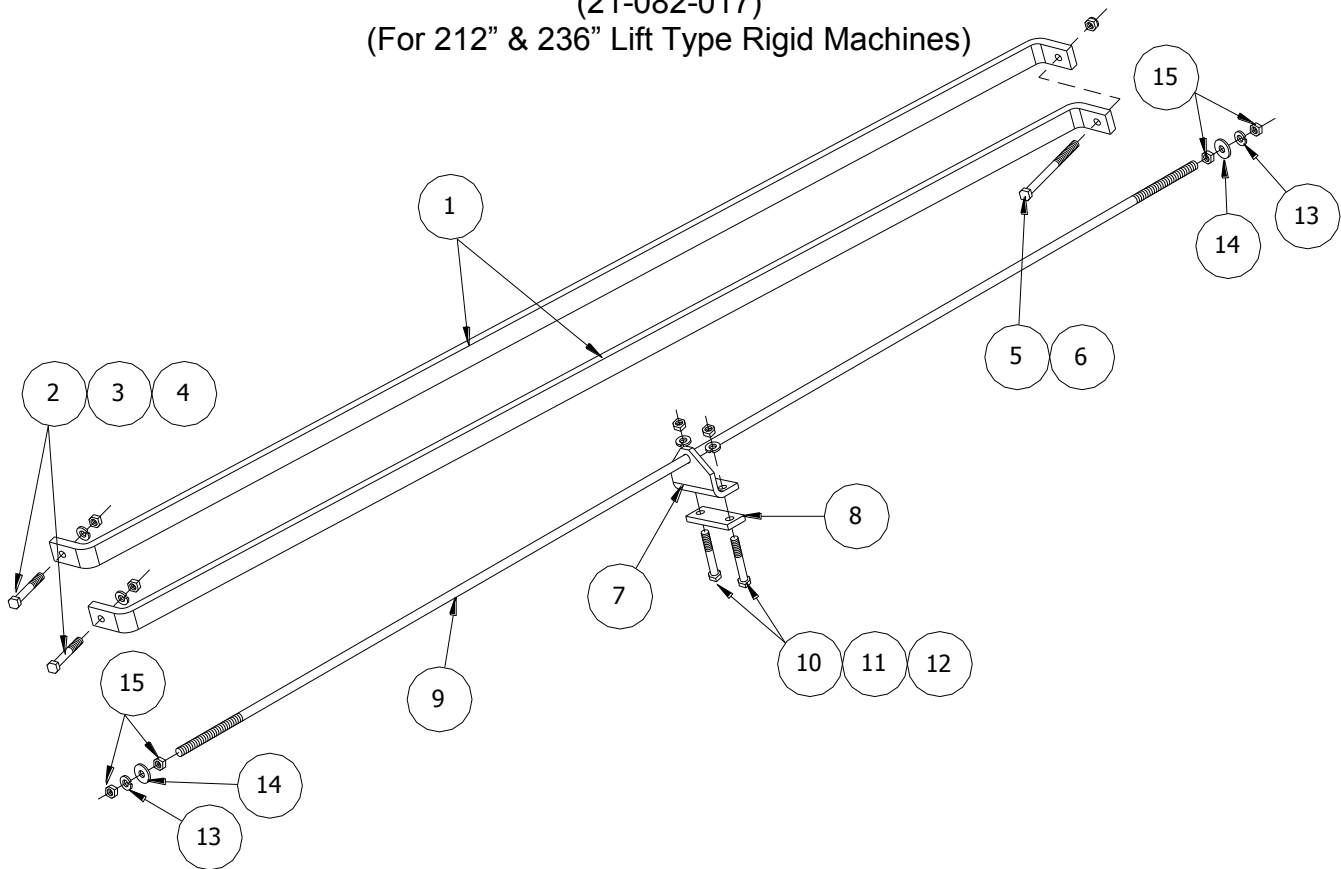


RIGID BAR MAST (21-082-002)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-016	(-1985)	FIELD CULTIVATOR MAST	(1)
	21-080-125	(1986-)	MAST, '94	1
2	02-024-004		MAST SPACER	2
3	21-023-002		TENSION STRAP	2
4	48-091550		CAPSCREW, 7/8 X 2 1/2 G5 PLT	4
5	48-100250		CAPSCREW, 7/8 X 6 G5 PLT	1
6	48-100550		CAPSCREW, 1 X 4 1/2 G5 PLT	1
7	66-010400		LOCKWASHER, 7/8 PLT	5
8	68-010400		HEX NUT, 7/8 PLT	5
9	66-010450		LOCKWASHER, 1 PLT	1
10	68-010450		HEX NUT, 1 PLT	1
11	72-020100	(-1985)	LOCKNUT, 7/8 G"C" PLT	(3)

TENSION STRAPS (19 FOOT)
 (21-082-017)
 (For 212" & 236" Lift Type Rigid Machines)

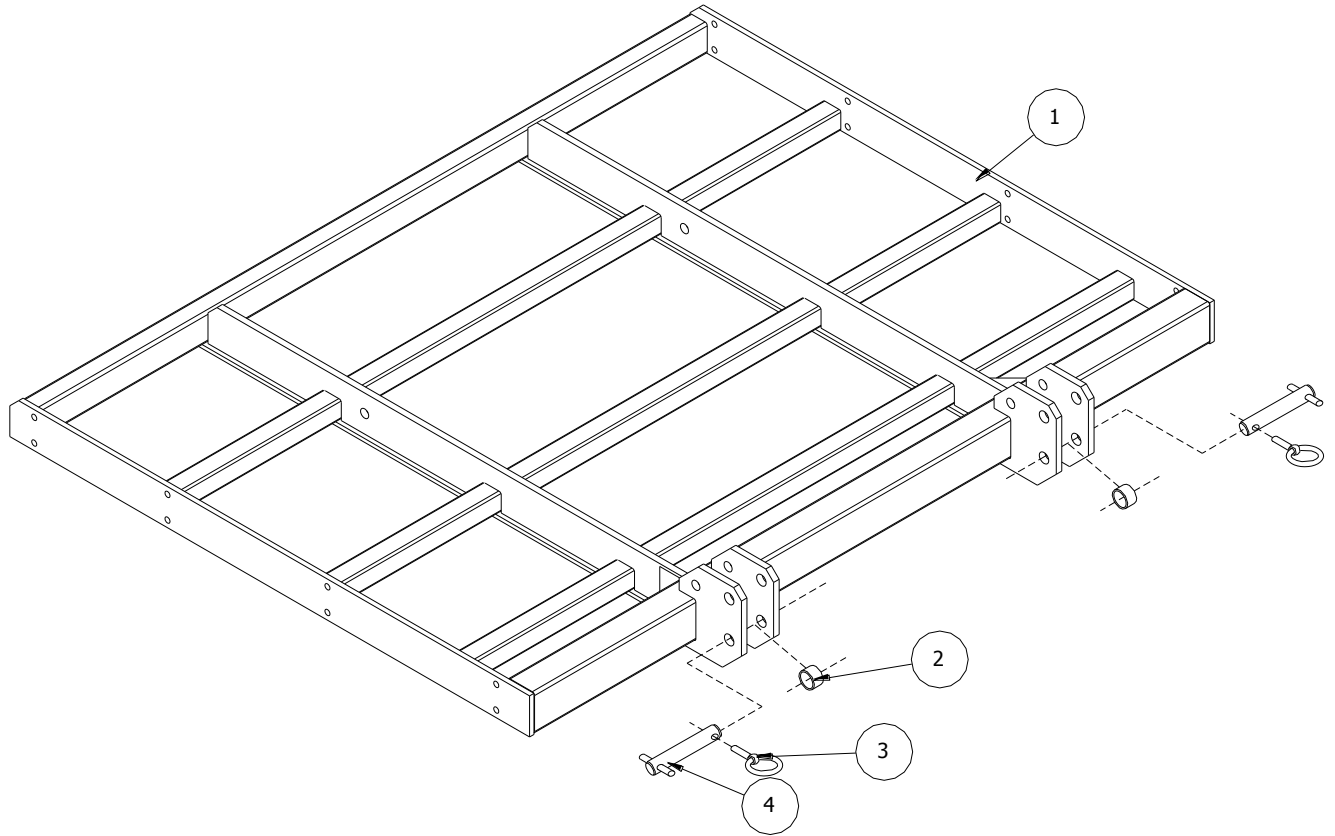


ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-023-034		TENSION STRAP (19 FOOT)	2
2	48-091550		CAPSCREW, 7/8 X 2 1/2 G5 PLT	2
3	66-010400		LOCKWASHER, 7/8 PLT	2
4	68-010400		HEX NUT, 7/8 PLT	2
5	48-100320	(-1987)	CAPSCREW, 7/8 X 7 G5 UNFIN	(1)
	48-100325	(1998-)	CAPSCREW, 7/8 X 7 1/2 G5 UNFIN	1
6	72-020100		LOCKNUT, 7/8 G"C" PLT	1
7	21-023-036		TRUSS BRACKET	1
8	21-023-037		TRUSS CAP	1
9	24-026-003		TRUSS ROD	1
10	48-091200		CAPSCREW, 5/8 X 6 G5 PLT	2
11	66-010300		LOCKWASHER, 5/8 PLT	2
12	68-010300		HEX NUT, 5/8 PLT	2
13	66-010350		LOCKWASHER, 3/4 PLT	2
14	62-010300		FLATWASHER, 3/4 PLT	2
15	68-010350		HEX NUT, 3/4 PLT	2

RIGID LIFT TYPE MAIN FRAME

(21-082-069)

(For 60" & 76" Machines)

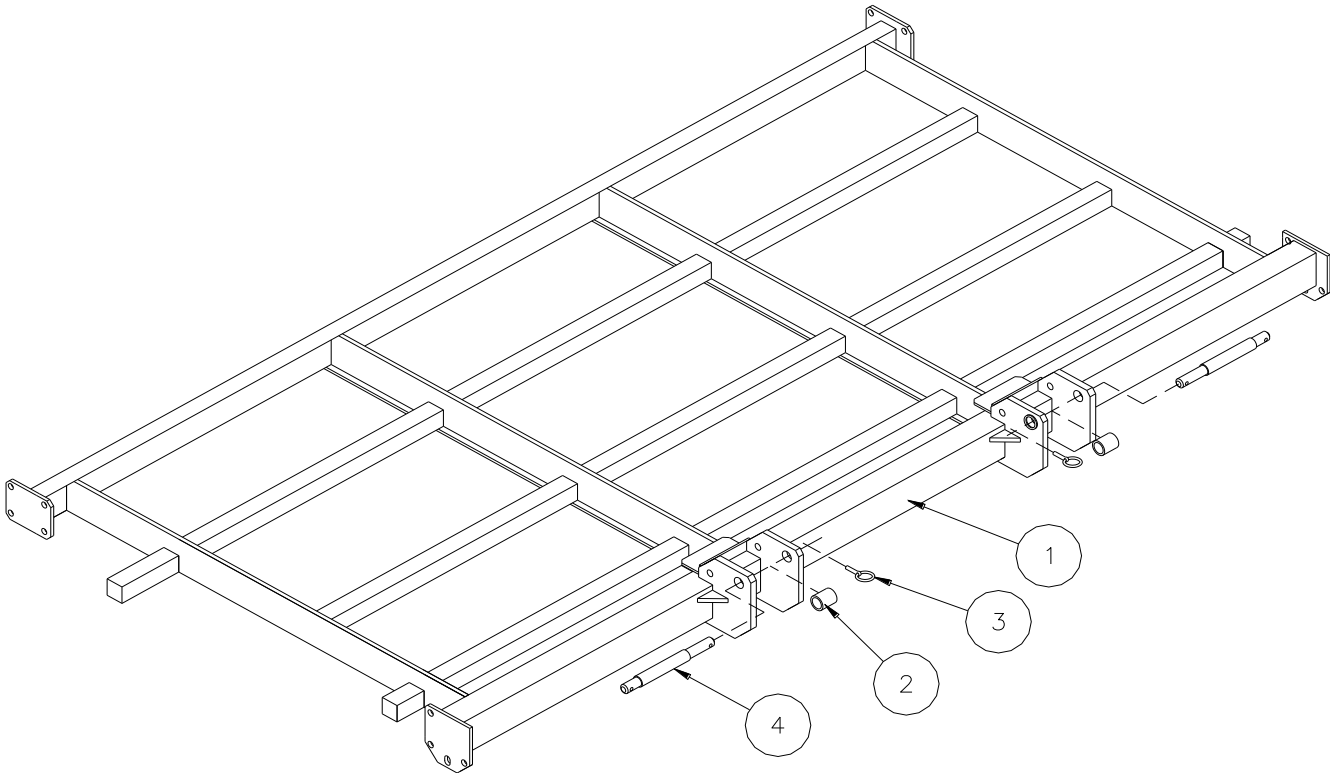


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-081		76" MAIN FRAME (4-BAR)	1
2	06-024-021		CAT. II SPACER	2
3	02-050-002		KLIK PIN, 7/16 X 1 3/4	2
4	03-050-088		HITCH PIN, 1 1/8	2

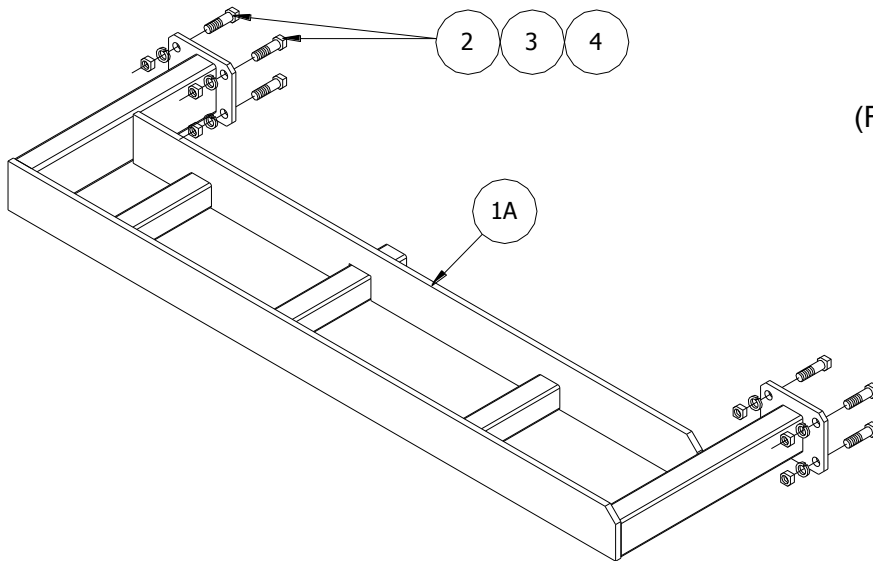
LIFT TYPE MAIN FRAME

(21-082-001)

(For 108", 148", 172", 188", 212" & 236" Machines)

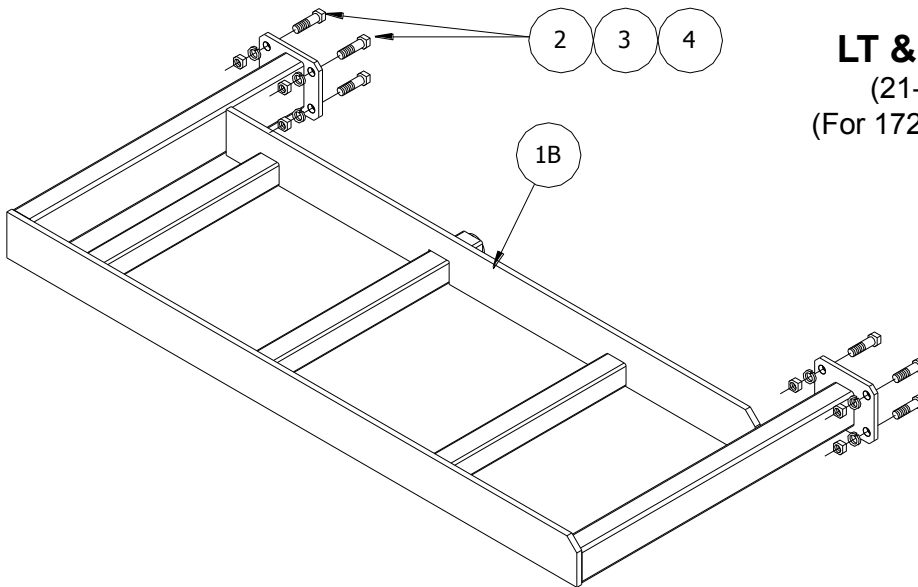


ITEM	PART NO.	SERIAL NO OR YR.	DESCRIPTION	QTY
1	21-080-002		FIELD CULTIVATOR MAIN FRAME	1
2	05-024-010		CAT. III SPACER	2
3	02-050-002		KLIK PIN, 7/16 X 1 3/4	2
4	03-026-126		STEP HITCH PIN	2



LT & RT WING (1 FOOT)
 (21-082-003 & 21-082-004)
 (For 148" Lift Type Rigid Machine)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				LT	RT
1A	21-080-005		LT WING (1 FOOT)	1	-
	21-080-006		RT WING (1 FOOT)	-	1
2	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	8	8
3	66-010300		LOCKWASHER, 5/8 PLT	8	8
4	68-010300		HEX NUT, 5/8 PLT	8	8



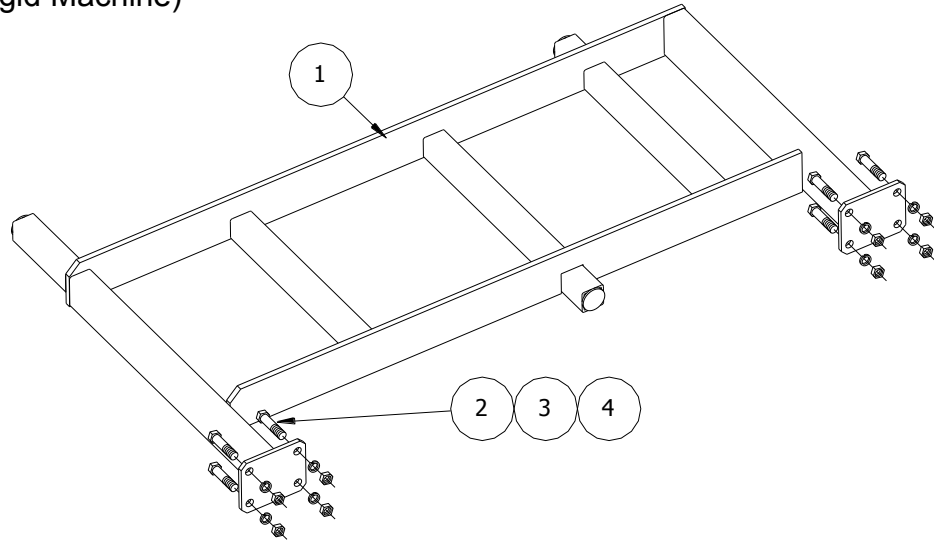
LT & RT WING (2 FOOT)
 (21-082-005 & 21-082-006)
 (For 172" Lift Type Rigid Machine)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				LT	RT
1B	21-080-003		LT WING (2 FOOT)	1	-
	21-080-004		RT WING (2 FOOT)	-	1
2	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	8	8
3	66-010300		LOCKWASHER, 5/8 PLT	8	8
4	68-010300		HEX NUT, 5/8 PLT	8	8

LT WING (3 FOOT)

(21-082-078)

(For 188" Lift Type Rigid Machine)

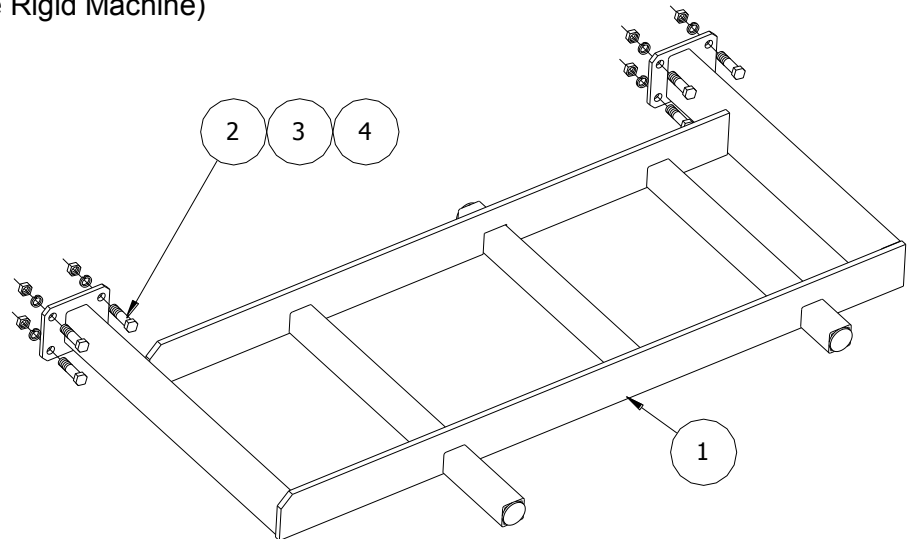


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-089		LT WING (3 FOOT)	1
2	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	8
3	66-010300		LOCKWASHER, 5/8 PLT	8
4	68-010300		HEX NUT, 5/8 PLT	8

RT WING (3 FOOT)

(21-082-079)

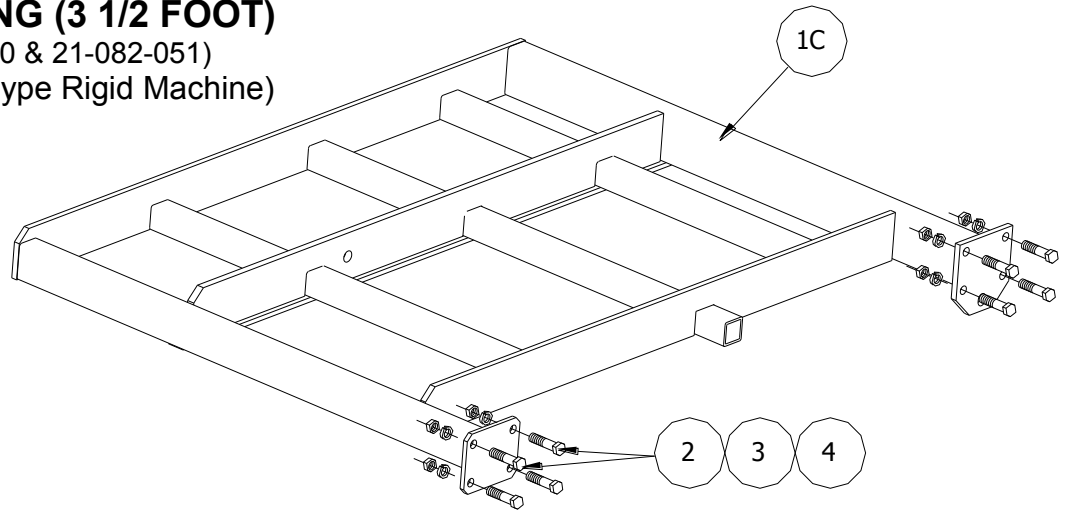
(For 188" Lift Type Rigid Machine)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-090		RT WING (3 FOOT)	1
2	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	8
3	66-010300		LOCKWASHER, 5/8 PLT	8
4	68-010300		HEX NUT, 5/8 PLT	8

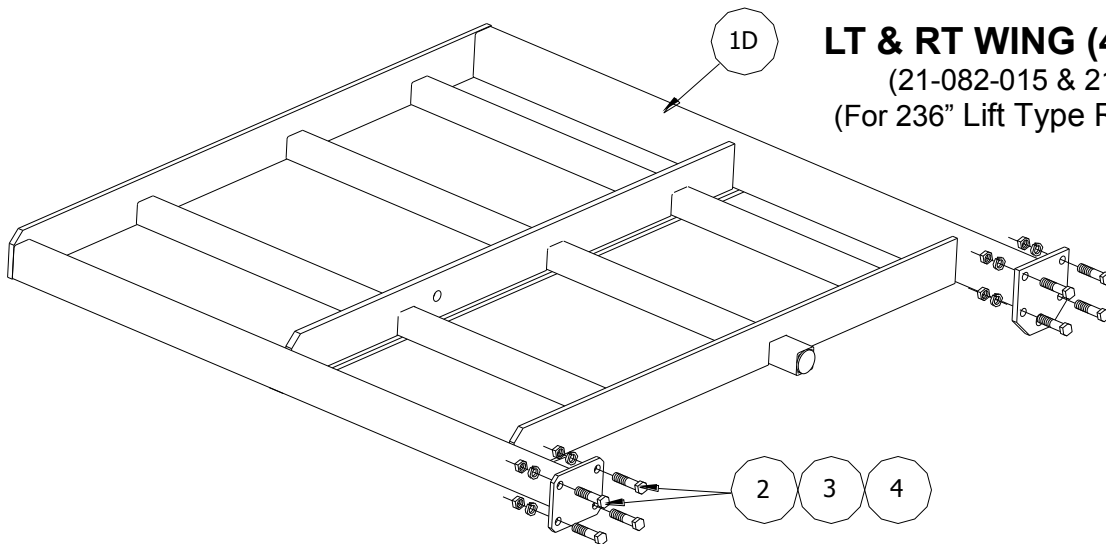
LT & RT WING (3 1/2 FOOT)

(21-082-050 & 21-082-051)
 (For 212" Lift Type Rigid Machine)



LT & RT WING (4 1/2 FOOT)

(21-082-015 & 21-082-016)
 (For 236" Lift Type Rigid Machine)

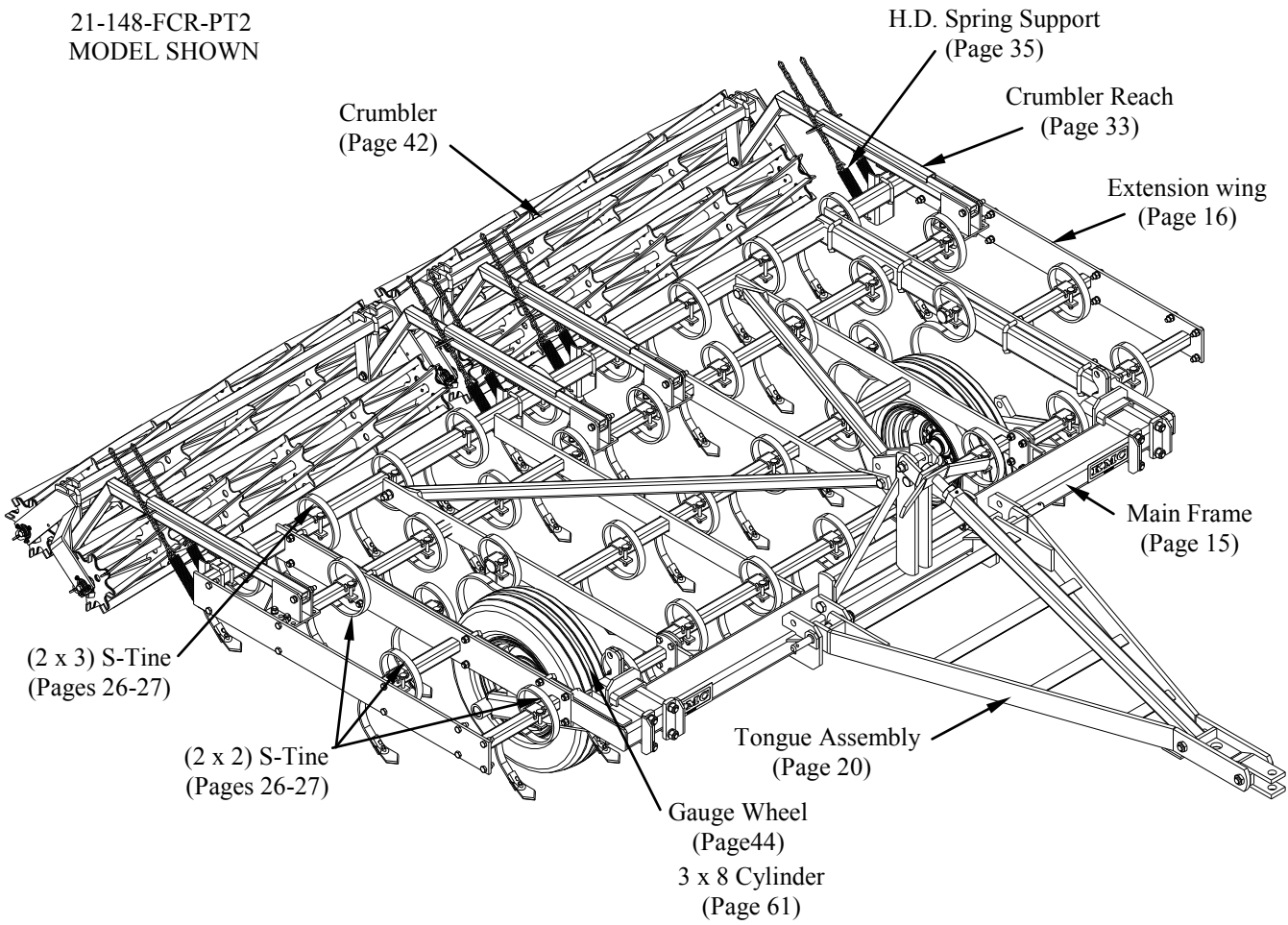


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				LT	RT
1C	21-080-065		LT WING (3 1/2 FOOT)	1	-
	21-080-066		RT WING (3 1/2 FOOT)	-	1
2	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	8	8
3	66-010300		LOCKWASHER, 5/8 PLT	8	8
4	68-010300		HEX NUT, 5/8 PLT	8	8

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				LT	RT
1D	21-080-012		LT WING (4 1/2 FOOT)	1	-
	21-080-013		RT WING (4 1/2 FOOT)	-	1
2	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	8	8
3	66-010300		LOCKWASHER, 5/8 PLT	8	8
4	68-010300		HEX NUT, 5/8 PLT	8	8

PULL-TYPE RIGID FIELD CULTIVATORS AND WING EXTENSIONS

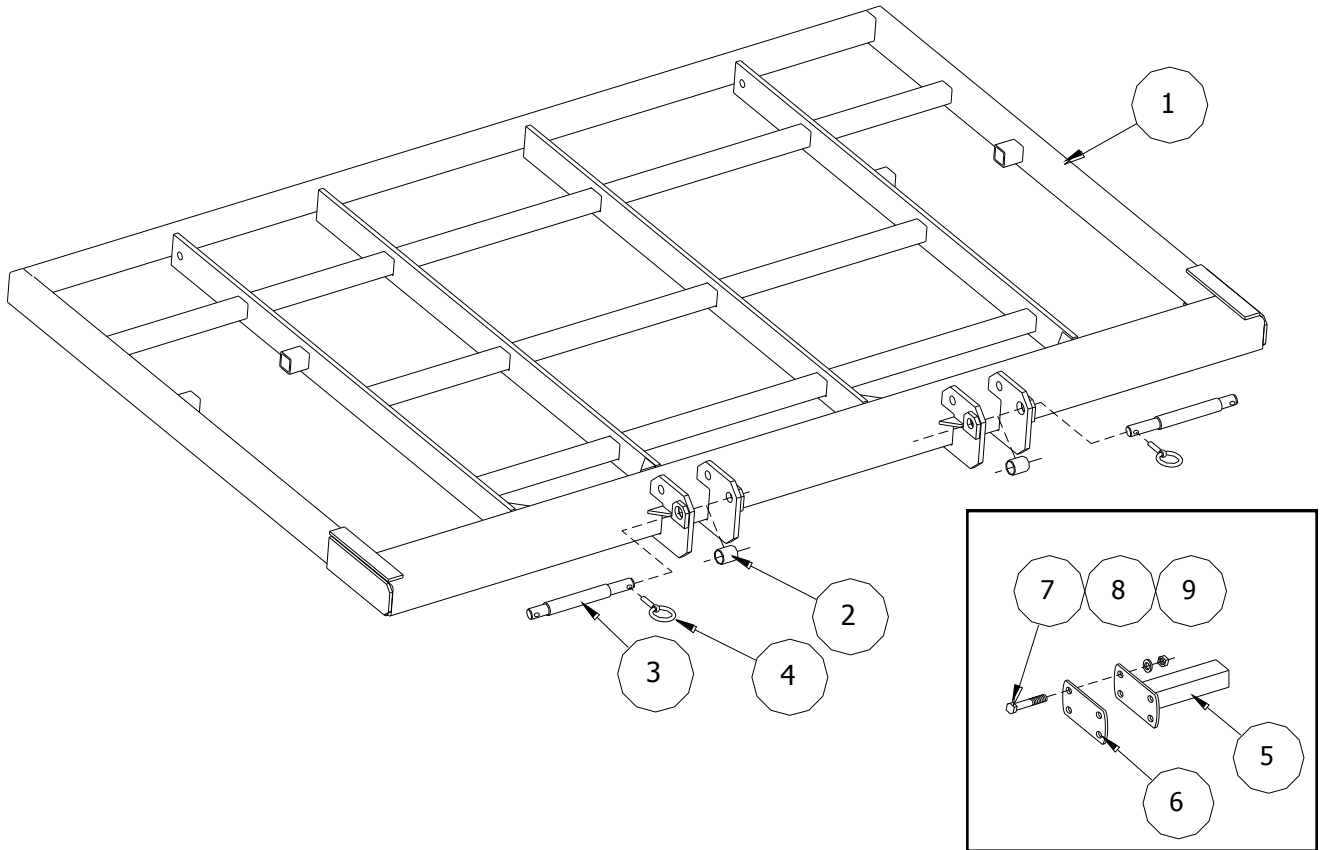
21-148-FCR-PT2
MODEL SHOWN



118" PULL-TYPE MAIN FRAME

(21-082-072)

(All Models)

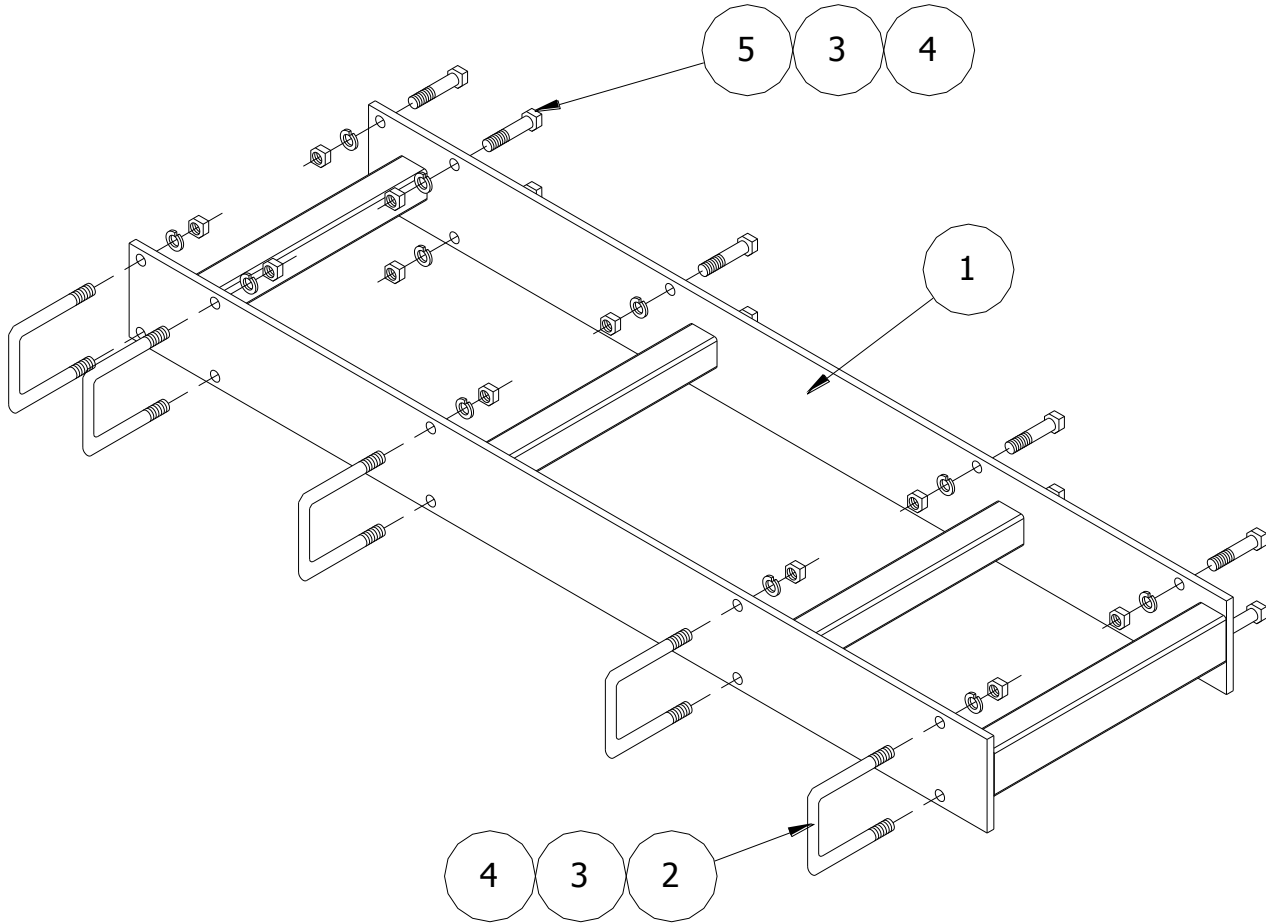


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-086		118" MAIN FRAME (4-BAR)	1
2	05-024-010		CAT. III SPACER	2
3	05-026-008		STEP HITCH PIN, LONG	2
4	02-050-002		KLIK PIN, 7/16 X 1 3/4	2
5	21-080-105		BRACKET, 11" EXT	2
6	21-023-163		CAP, 4"	2
7	48-090983		CAPSCREW, 5/8 X 2 1/4	8
8	66-010300		LOCKWASHER, 5/8 PLT	8
9	68-010300		HEX NUT, 5/8 PLT	8

18 1/2" (PULL-TYPE) RIGID CULTIVATOR WING

(21-082-070)

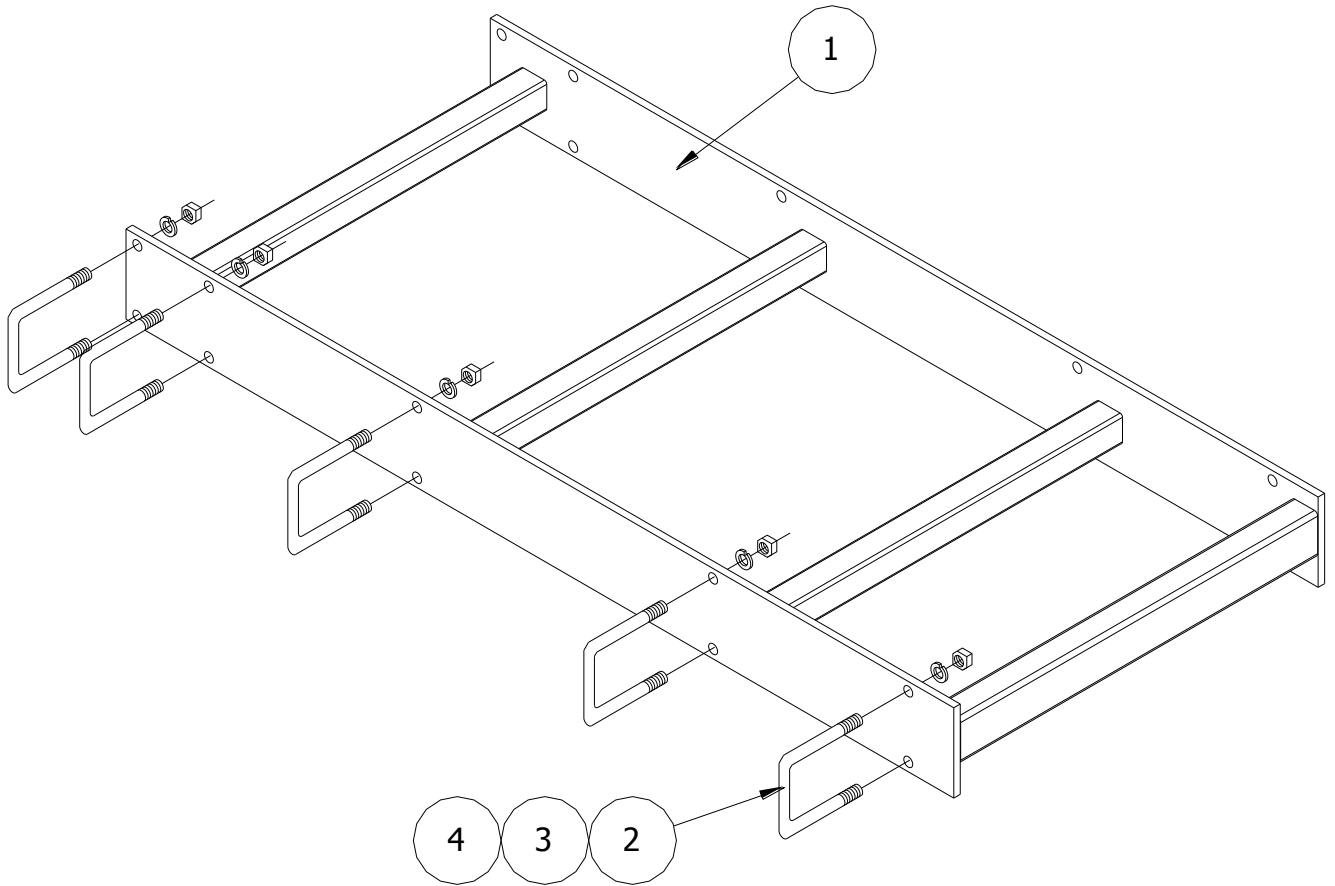
(For 148", 188" & 212" Machines)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-084		1'-4" (PULL-TYPE) RIGID CULT WING	1
2	05-050-003		"U"-BOLT, 5/8 X 4 11/16 X 3 3/8	5
3	66-010300		LOCKWASHER, 5/8 PLT	20
4	68-010300		HEX NUT, 5/8 PLT	20
5	48-090920		CAPSCREW, 5/8 X 1 3/4 G5 PLT	10

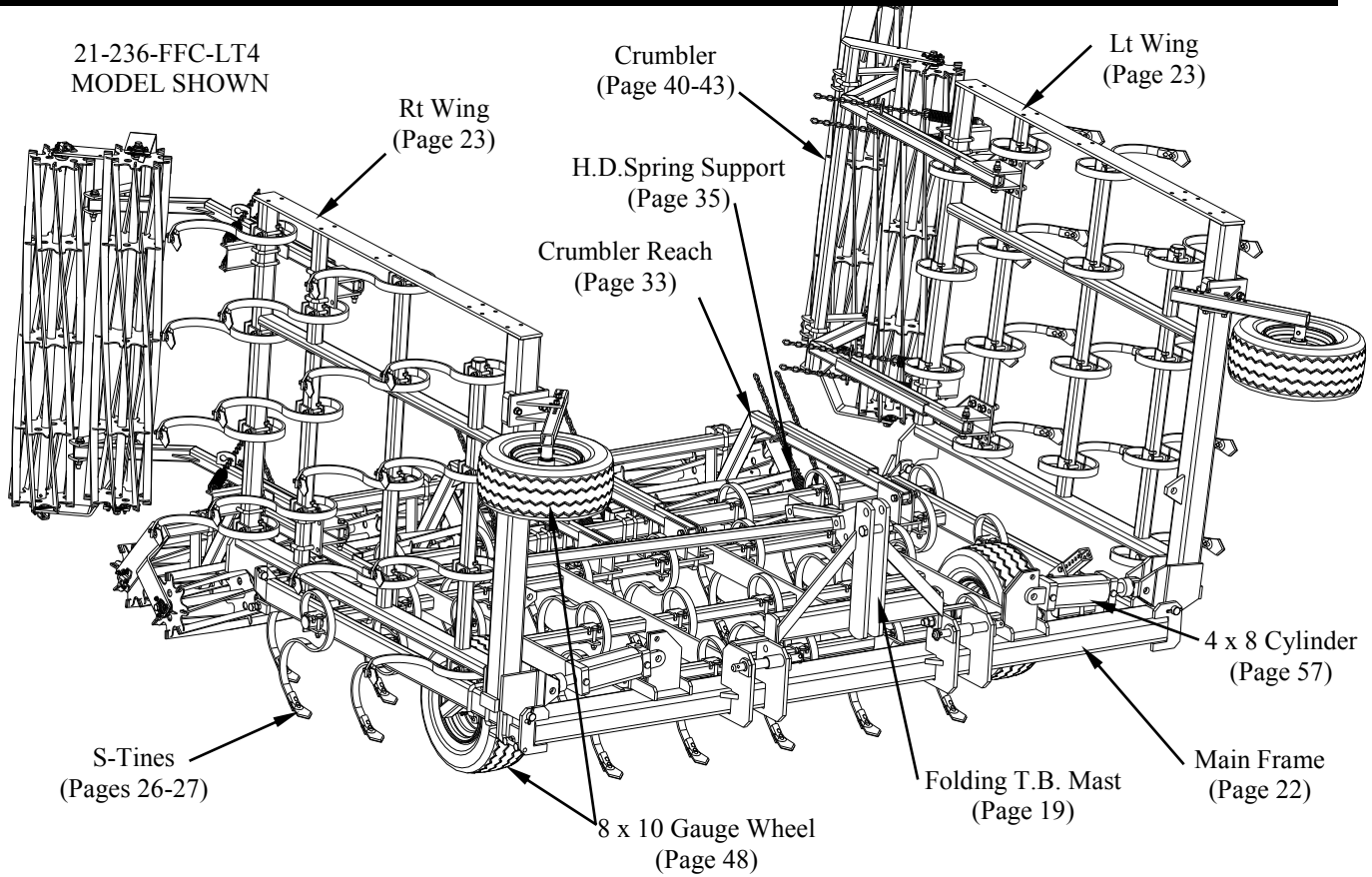
28 1/2" (PULL-TYPE) RIGID CULTIVATOR WING

(21-082-071)
(For 172" Machine)

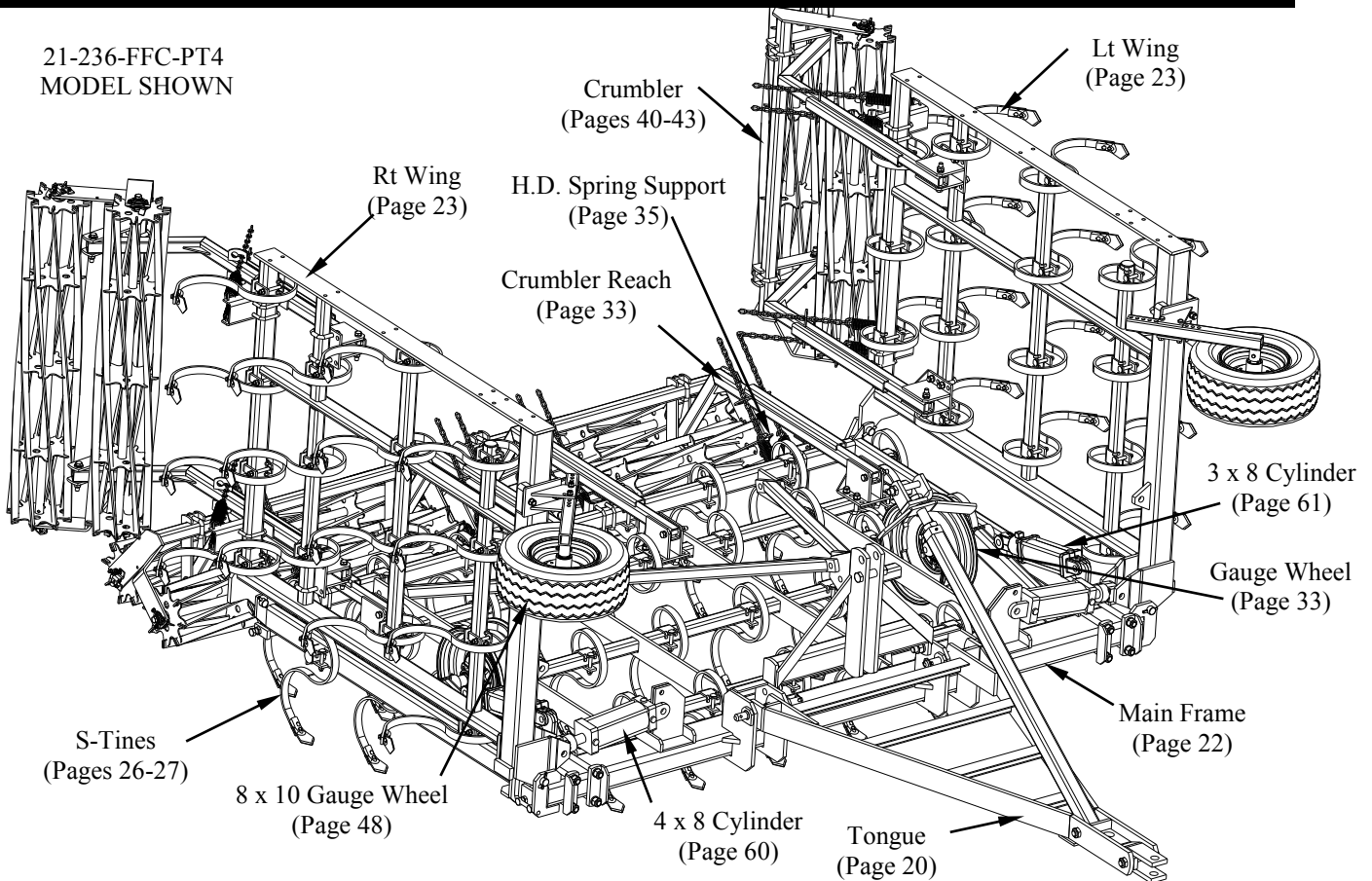


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-085		28 1/2" (PULL-TYPE) RIGID CULT WING	1
2	05-050-003		"U"-BOLT, 5/8 X 4 11/16 X 3 3/8	5
3	66-010300		LOCKWASHER, 5/8 PLT	10
4	68-010300		HEX NUT, 5/8 PLT	10

FOLDING LIFT-TYPE FIELD CULTIVATORS & WINGS & EXTENSIONS



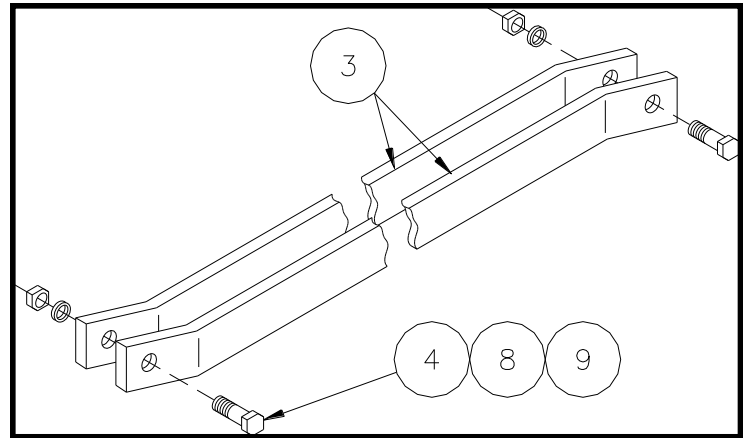
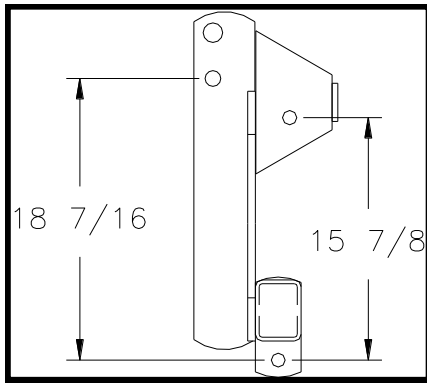
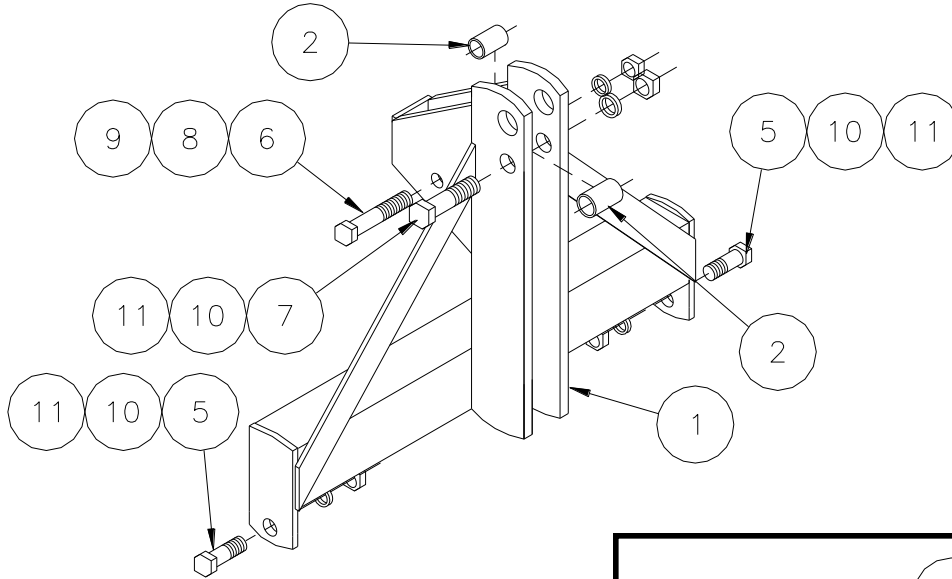
FOLDING PULL-TYPE FIELD CULTIVATORS & WINGS & EXTENSIONS



FOLDING TOOL BAR MAST

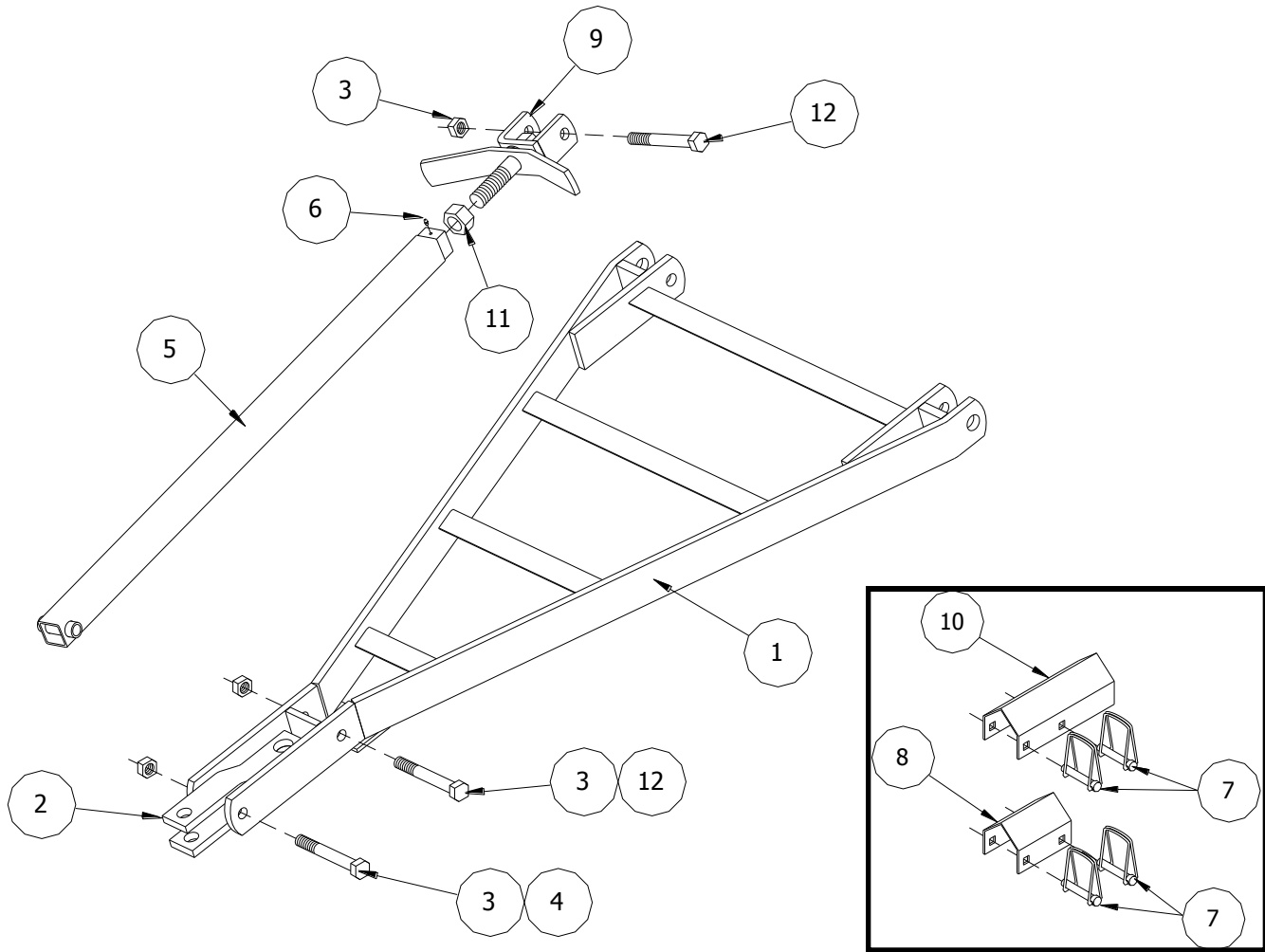
(21-082-019)

(For Lift-Type & Pull-Type Folding Machines)



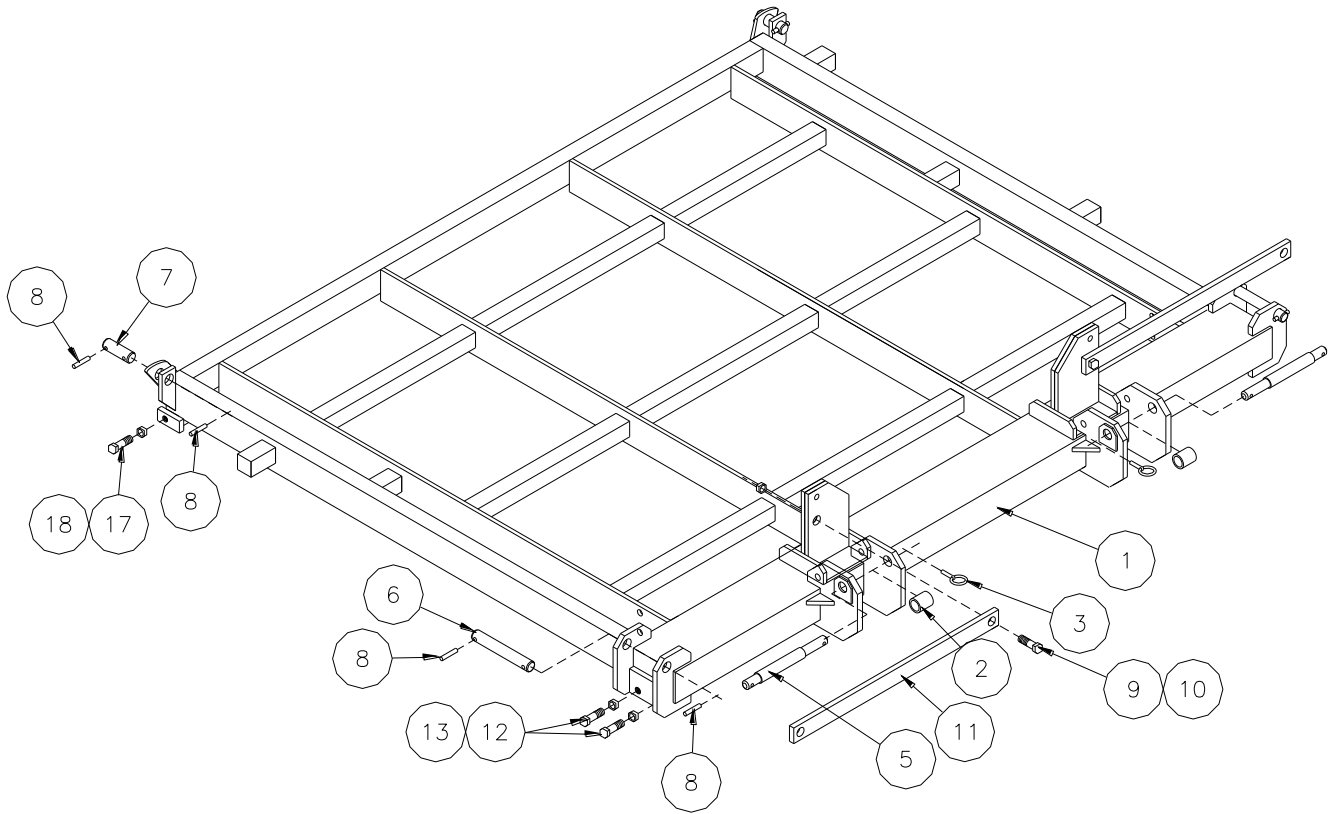
ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-032	(-1985)	FIELD CULTIVATOR MAST	(1)
	21-080-126	(1986-)	FOLDING FIELD CULTIVATOR MAST	1
2	02-024-004		MAST SPACER	2
3	21-023-083		TENSION STRAP	2
4	48-100480		CAPSCREW, 1 X 2 1/2 G5 PLT	2
5	48-200100		CAPSCREW, 7/8 X 3 G8 PLT	2
6	48-200150		CAPSCREW, 7/8 X 7 G8 PLT	1
7	48-100600		CAPSCREW, 1 X 5 G5 PLT	1
8	66-010400		LOCKWASHER, 7/8 PLT	3
9	68-010400		HEX NUT, 7/8 PLT	3
10	66-010450		LOCKWASHER, 1 PLT	3
11	68-010450		HEX NUT, 1 PLT	3
12	72-020100	(-1985)	LOCKNUT, 7/8 G"C" PLT	(1)
	72-020125	(-1985)	LOCKNUT, 1 G"C" PLT	(2)

TONGUE ASSEMBLY (FOLDING)
 (21-082-033)
 (For Pull-Type Rigid and Folding Machines)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-044		TONGUE WELDMENT (FOLDING)	1
2	21-080-042		CLEVIS WELDMENT	1
3	72-040100		LOCKNUT, 1" JAM G"A" PLT	3
4	05-050-017		HEX SCREW, 1" -8 NC X 6 1/2	1
5	21-080-040		ADJUSTMENT TUBE	1
6	02-050-005		GREASE FITTING, 1/4-28 STR	1
7	21-050-012		SNAPPER PINS, 3/8 X 2 3/4	4
8	21-027-004		LIFT WHEEL TRANS LOCKOUT	1
9	21-080-041		YOKE WELDMENT	1
10	21-027-007		8 1/2 LIFT WHEEL TRANS LOCKOUT	1
11	70-010300		1 1/2 JAM NUT, PLN	1
12	48-100625		CAPSCREW, 1 X 6 1/2 G5 PLT	2

88" MAIN FRAME
 (21-082-121)
 (For 200" Lift-Type & Pull-Type Folding Machines)

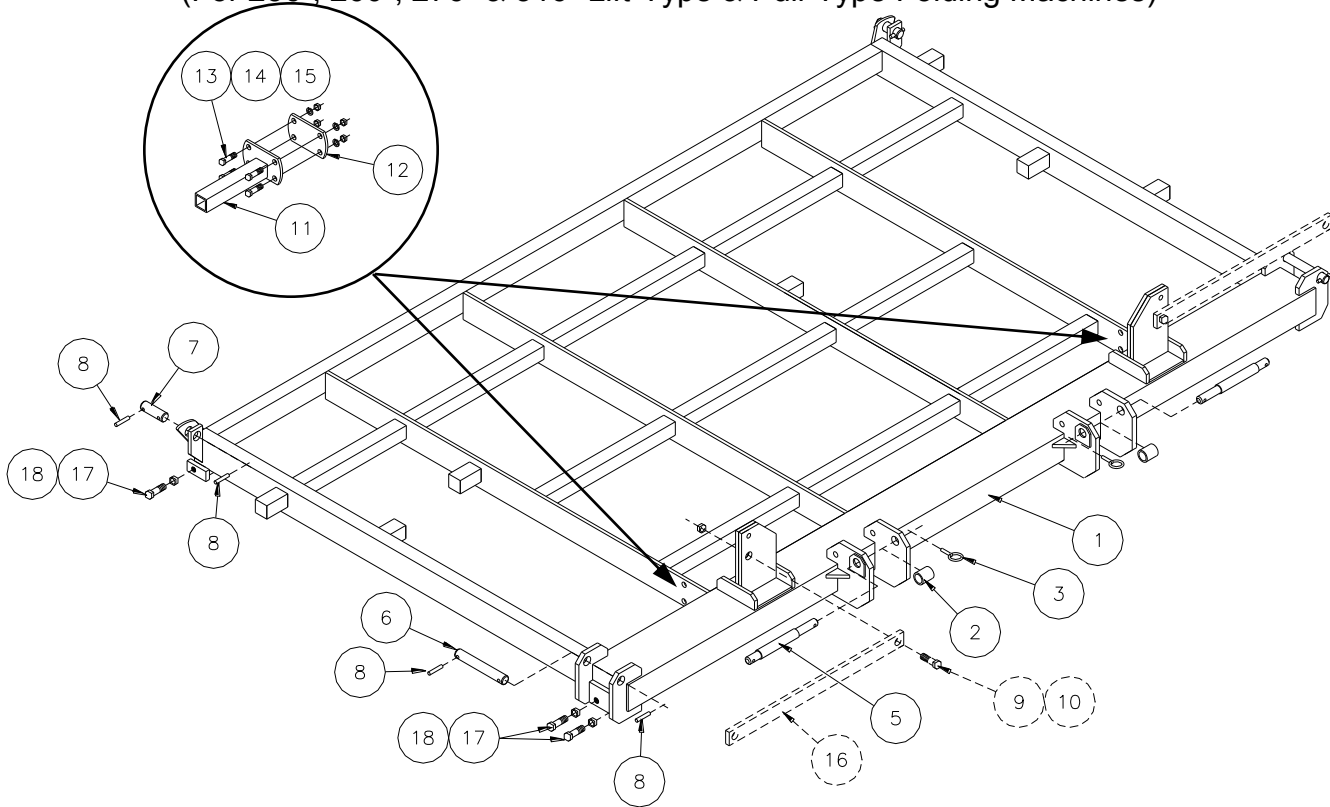


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-143		MAIN FRAME, 88" FF CULT	1
2	05-024-010		CAT. III SPACER	2
3	02-050-002		KLIK PIN, 7/16 X 1 3/4	2
5	05-026-008		STEP HITCH PIN (LONG)	2
6	21-026-006		FRONT PIVOT PINS	2
7	21-026-005		REAR PIVOT PINS	2
8	02-050-003		SPIROL PINS	8
9	48-091350		CAPSCREW, 3/4 X 2 1/2 G5 PLT	5
10	72-010150		LOCK NUT, 3/4 PLT	5
11	21-023-200		STRAP, FIELD CULTIVATOR	5
12	48-091275		CAPSCREW, 3/4 X 2 G5 PLT	6
13	70-010150		JAM NUT, 3/4	6

120" MAIN FRAME

(21-082-018)

(For 236", 260", 276" & 316" Lift-Type & Pull-Type Folding Machines)

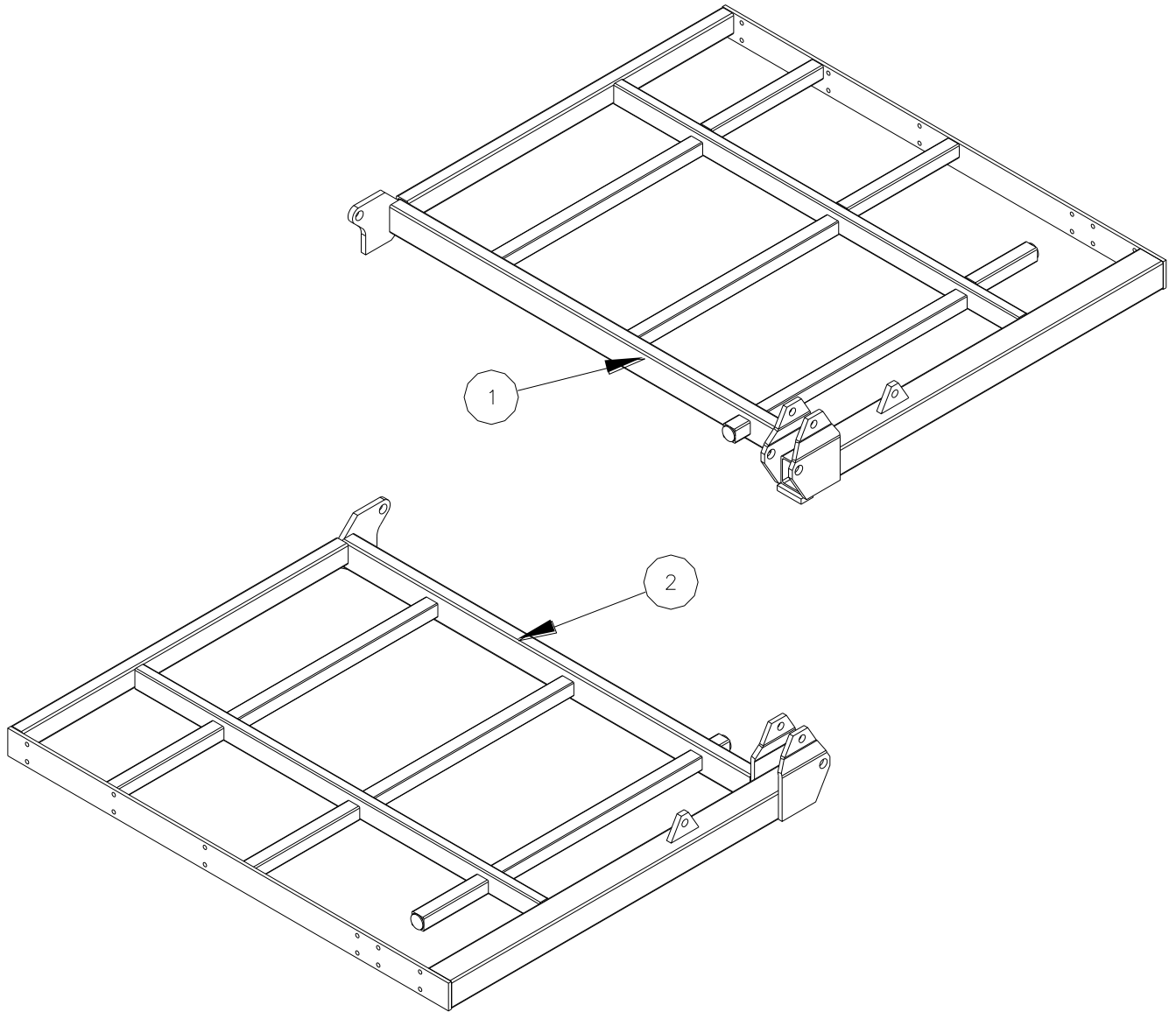


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-026		FOLDING FIELD CULT. MAIN FRAME	1
2	05-024-010		CAT. III SPACER	2
3	02-050-002		KLIK PIN, 7/16 X 1 3/4	2
5	05-026-008		STEP HITCH PIN (LONG)	2
6	21-026-006		FRONT PIVOT PINS	2
7	21-026-005		REAR PIVOT PINS	2
8	02-050-003		SPIROL PINS	8
9	48-091350	(-2014)	CAPSCREW, 3/4 X 2 1/2 G5 PLT	5
10	72-010150	(-2014)	LOCK NUT, 3/4 PLT	5
11	21-080-105		BRACKET, 11" EXT	2
12	21-023-163		CAP, 4"	2
13	48-090983		CAPSCREW, 5/8 X 2 1/4 G5 PLT	8
14	66-010300		LOCKWASHER, 5/8 PLT	8
15	68-010300		HEX NUT, 5/8 PLT	8
16	21-023-200	(-2014)	STRAP, FIELD CULTIVATOR	5
17	48-091275		CAPSCREW, 3/4 X 2 G5 PLT	6
18	70-010150		JAM NUT, 3/4	6

LT & RT 60" FOLDING WINGS

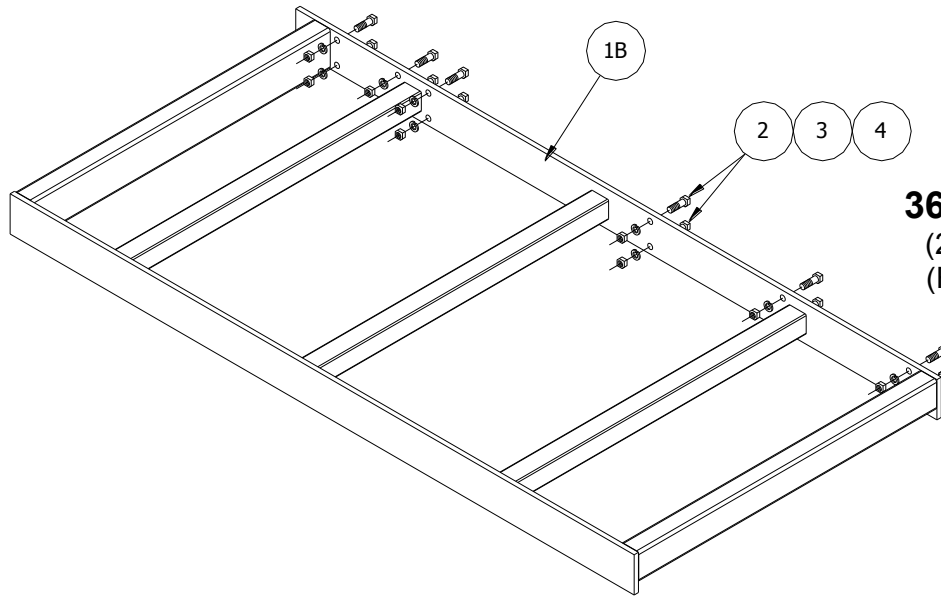
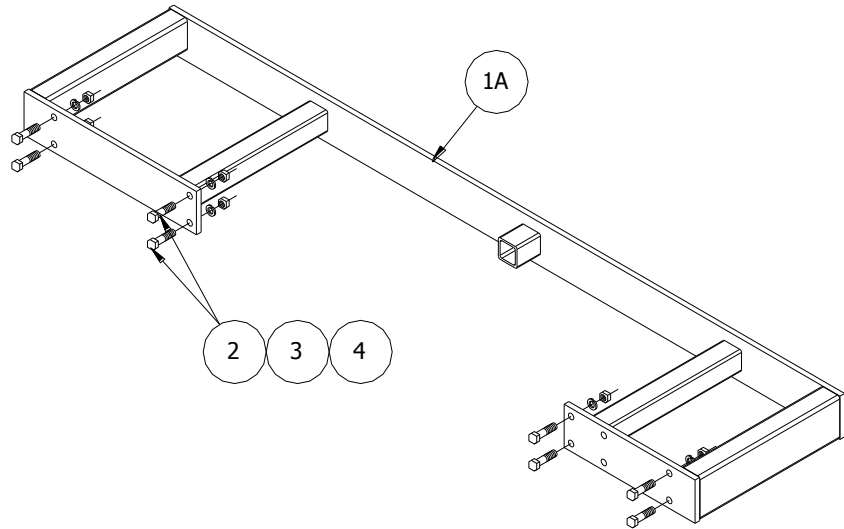
(For Lift-Type & Pull-Type Folding)

(21-082-020 & 21-082-021)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-024		60" FOLDING WING, LT	1
2	21-080-025		60" FOLDING WING, RT	1

**LT & RT
16" WING EXTENSION**
(21-082-024 & 21-082-025)
(For 276" Folding Machine)



**LT & RT
36" WING EXTENSION**
(21-082-022 & 21-082-023)
(For 316" Folding Machine)

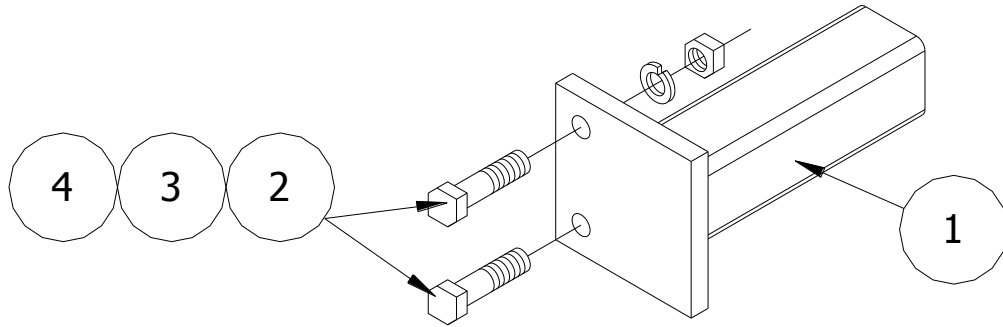
ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				LT	RT
1A	21-080-035		LT 16" WING EXTENSION (FOLDING)	1	-
	21-080-036		RT 16" WING EXTENSION (FOLDING)	-	1
2	48-090596		CAPSCREW, 1/2 X 1 3/4 G5 PLT	8	8
3	66-010250		LOCKWASHER, 1/2 PLT	8	8
4	68-010250		HEX NUT, 1/2 PLT	8	8

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				LT	RT
1B	21-080-033		LT 36" WING EXTENSION (FOLDING)	1	-
	21-080-034		RT 36" WING EXTENSION (FOLDING)	-	1
2	48-090596		CAPSCREW, 1/2 X 1 3/4 G5 PLT	12	12
3	66-010250		LOCKWASHER, 1/2 PLT	12	12
4	68-010250		HEX NUT, 1/2 PLT	12	12

SHANK BOLT-ON EXTENSION (FOLDING)

(21-082-052)

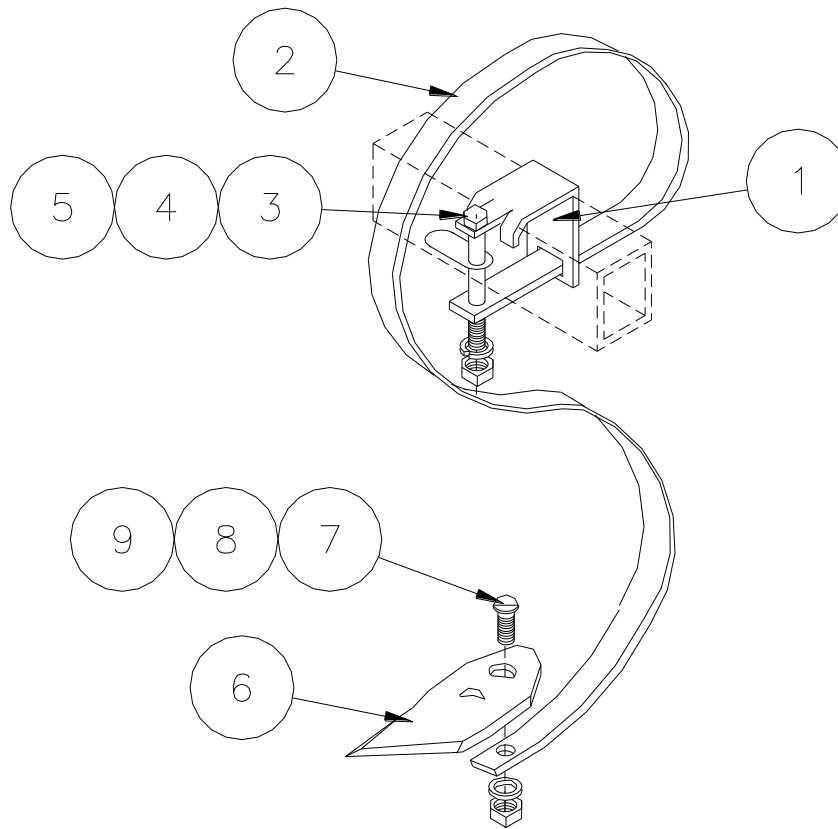
(For 260" Folding Machine)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-058		SHANK EXTENSION	1
2	48-090596		CAPSCREW, 1/2 X 1 3/4 G5 PLT	2
3	66-010250		LOCKWASHER, 1/2 PLT	2
4	68-010250		HEX NUT, 1/2 PLT	2

COMPONENTS FOR ALL MACHINES

S-TINE BUNDLE



S-TINE BUNDLE W/2 1/2" SWEEP

(21-082-074) (2 X 2)

(21-082-073) (2 X 3)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				2X2	2X3
1	04-023-296		"S" TINE CLAMP (2 X 2)	1	-
	21-023-001		"S" TINE CLAMP (2 X 3)	-	1
2	14-050-012		DANISH TINE	1	1
3	52-050275		CARRIAGE SCREW, 1/2 X 3 1/2 G5 P	1	-
	52-050325		CARRIAGE SCREW, 1/2 X 4 1/2 G5 P	-	1
4	66-010250		LOCKWASHER, 1/2 PLT	1	1
5	68-010250		HEX NUT, 1/2 PLT	1	1
6	04-057-045		2 1/2" TO 2 3/4" H.T. SWEEP	1	1
7	14-050-030		PLOW BOLT, 3/8 X 1 1/2 G8 PLT	1	1
8	17-050-003		FLATWASHER, 1/2	1	1
9	78-020300		FLANGE NUT, 3/8	1	1

S-TINE HEAVY DUTY BUNDLE W/2 1/2" SWEEP

(21-082-094) (2 X 2)

(21-082-095) (2 X 3)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				2X2	2X3
1	21-023-104		"S" TINE CLAMP, 1/2" (2 X 2)	1	-
	21-023-103		"S" TINE CLAMP, 1/2" (2 X 3)	-	1
2	04-050-121		"S"-TINE, 1/2 X 1 1/4 HEAVY DUTY	1	1
3	52-050275		CARRIAGE SCREW, 1/2 X 3 1/2 G5 P	1	-
	52-090860		CAPSCREW, 1/2 X 4 1/2 G5 P	-	1
4	66-010250		LOCKWASHER, 1/2 PLT	1	1
5	68-010250		HEX NUT, 1/2 PLT	1	1
6	04-057-045		2 1/2" TO 2 3/4" H.T. SWEEP	1	1
7	14-050-030		PLOW BOLT, 3/8 X 1 1/2 G8 PLT	1	1
8	17-050-003		FLATWASHER, 1/2	1	1
9	78-020300		FLANGE NUT, 3/8	1	1

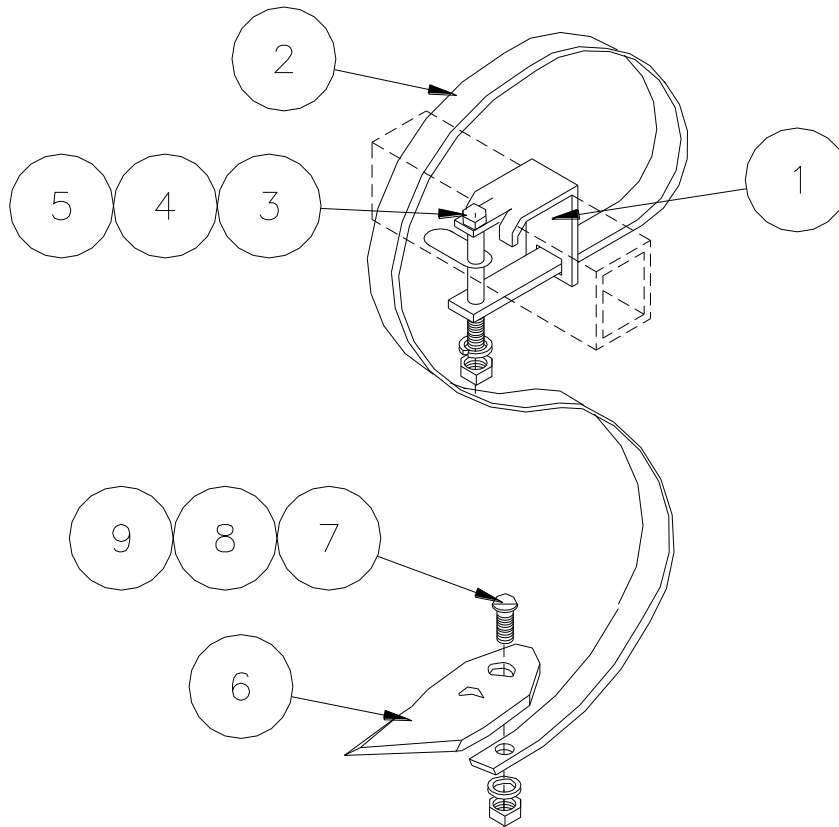
HIGH CLEARANCE S-TINE BUNDLE W/2 1/2" SWEEP (OPTIONAL)

(21-082-092) (2 X 2)

(21-082-093) (2 X 3)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				2X2	2X3
1	21-023-104		"S" TINE CLAMP, 1/2" (2 X 2)	1	-
	21-023-103		"S" TINE CLAMP, 1/2" (2 X 3)	-	1
2	04-050-117		"S"-TINE, 1/2 X 1 1/4 HIGH CLEAR.	1	1
3	52-050275		CARRIAGE SCREW, 1/2 X 3 1/2 G5 P	1	-
	52-090860		CAPSCREW, 1/2 X 4 1/2 G5 P	-	1
4	66-010250		LOCKWASHER, 1/2 PLT	1	1
5	68-010250		HEX NUT, 1/2 PLT	1	1
6	04-057-045		2 1/2" TO 2 3/4" H.T. SWEEP	1	1
7	14-050-030		PLOW BOLT, 3/8 X 1 1/2 G8 PLT	1	1
8	17-050-003		FLATWASHER, 1/2	1	1
9	78-020300		FLANGE NUT, 3/8	1	1

S-TINE BUNDLE
(For Mini Field Cultivators)



S-TINE BUNDLE W/SWEEP

(21-082-111) (2 X 2)

(21-082-112) (2 X 3)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				2X2	2X3
1	04-023-296		"S" TINE CLAMP (2 X 2)	1	-
	21-023-001		"S" TINE CLAMP (2 X 3)	-	1
2	14-050-012		DANISH TINE	1	1
3	52-050275		CARRIAGE SCREW, 1/2 X 3 1/2 G5 P	1	-
	52-050325		CARRIAGE SCREW, 1/2 X 4 1/2 G5 P	-	1
4	66-010250		LOCKWASHER, 1/2 PLT	1	1
5	68-010250		HEX NUT, 1/2 PLT	1	1
6	04-057-046		SWEEP, 4" S-TINE	1	1
7	14-050-030		PLOW BOLT, 3/8 X 1 1/2 G8 PLT	1	1
8	17-050-003		FLATWASHER, 1/2	1	1
9	78-020300		FLANGE NUT, 3/8	1	1

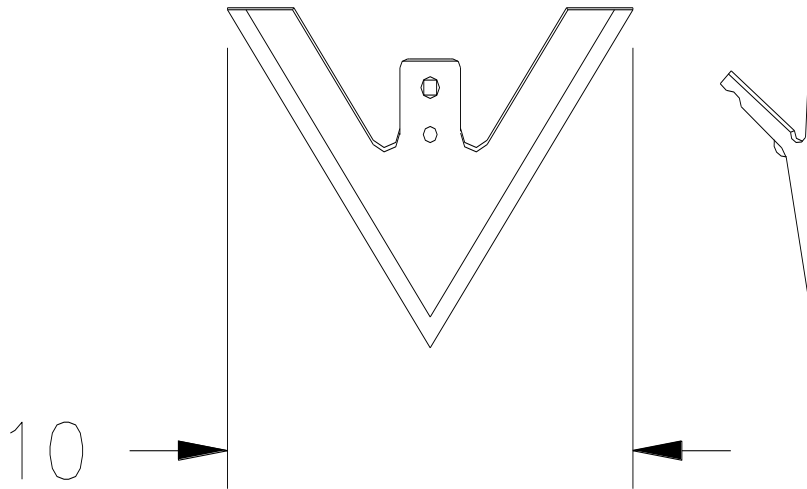
HI CLEARANCE S-TINE BUNDLE W/ NO SWEEP

(21-082-043) (2 X 2) (For Mini Skip-Row)

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	04-050-117		"S" TINE, 1/2 X 1 14	1
2	21-023-104		CLAMP, 2 X 2 HI CLEARANCE	1
3	52-050275		CARRIAGE SCREW, 1/2 X 3 1/2 G5 P	1
4	66-010250		LOCKWASHER, 1/2 PLT	1
5	68-010250		HEX NUT, 1/2 PLT	1

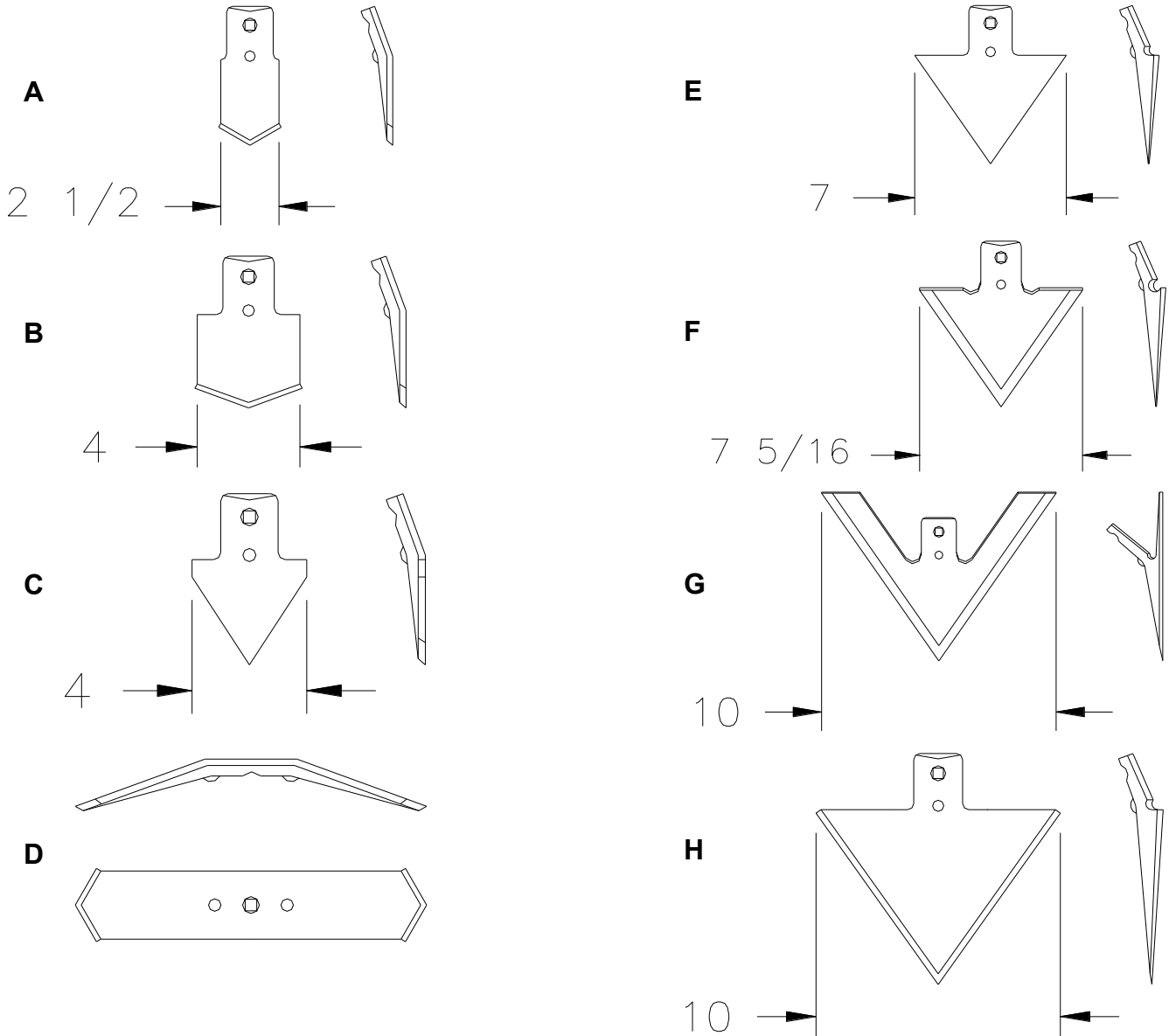
10" WINGED SWEEP W/HARDWARE

(21-082-091)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	04-057-063		SWEEP, 10" WING	1
2	14-050-030		PLOW BOLT, 3/8 X 1 1/2 G8 PLT	1
3	78-020300		FLANGE NUT, 3/8	1
4	17-050-003		FLATWASHER, 1/2 HARDEN	1

SWEEPS

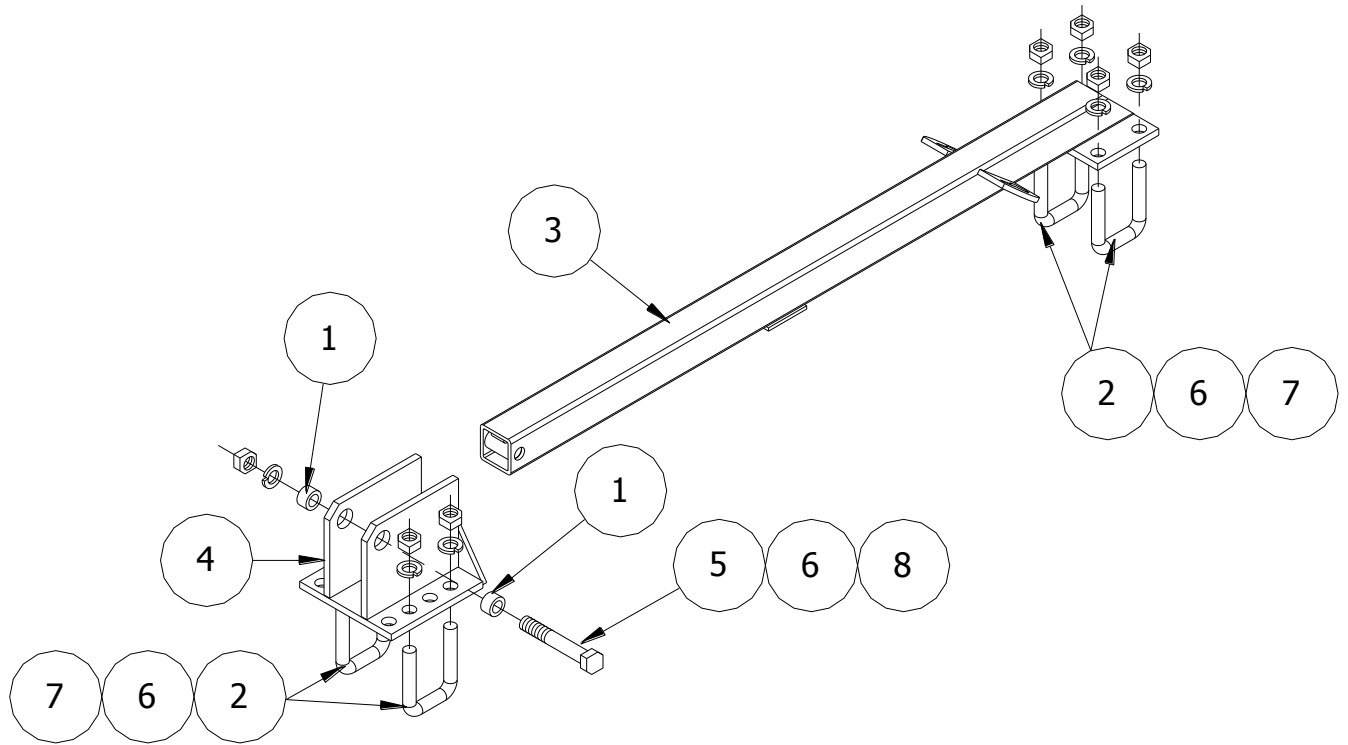


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
A	04-057-045		SWEEP, 2 1/2" TO 2 3/4"	
B	04-057-046		SWEEP, 4" (1/4")	
C	04-057-060		SWEEP, 4" WINGED "S"-TINE (1/4")	
D	04-057-048		REVERSIABLE SPIKE	
E	04-057-049		SWEEP, 7" (1/4")	
F	04-057-062		SWEEP, 7" WINGED "S"-TINE (1/4")	
G	04-057-063		SWEEP, 10" WINGED "S"-TINE (1/4")	
H	04-057-047		SWEEP, 10"	

CRUMBLER REACH

(21-082-055)

(For Mini Field Cultivator)

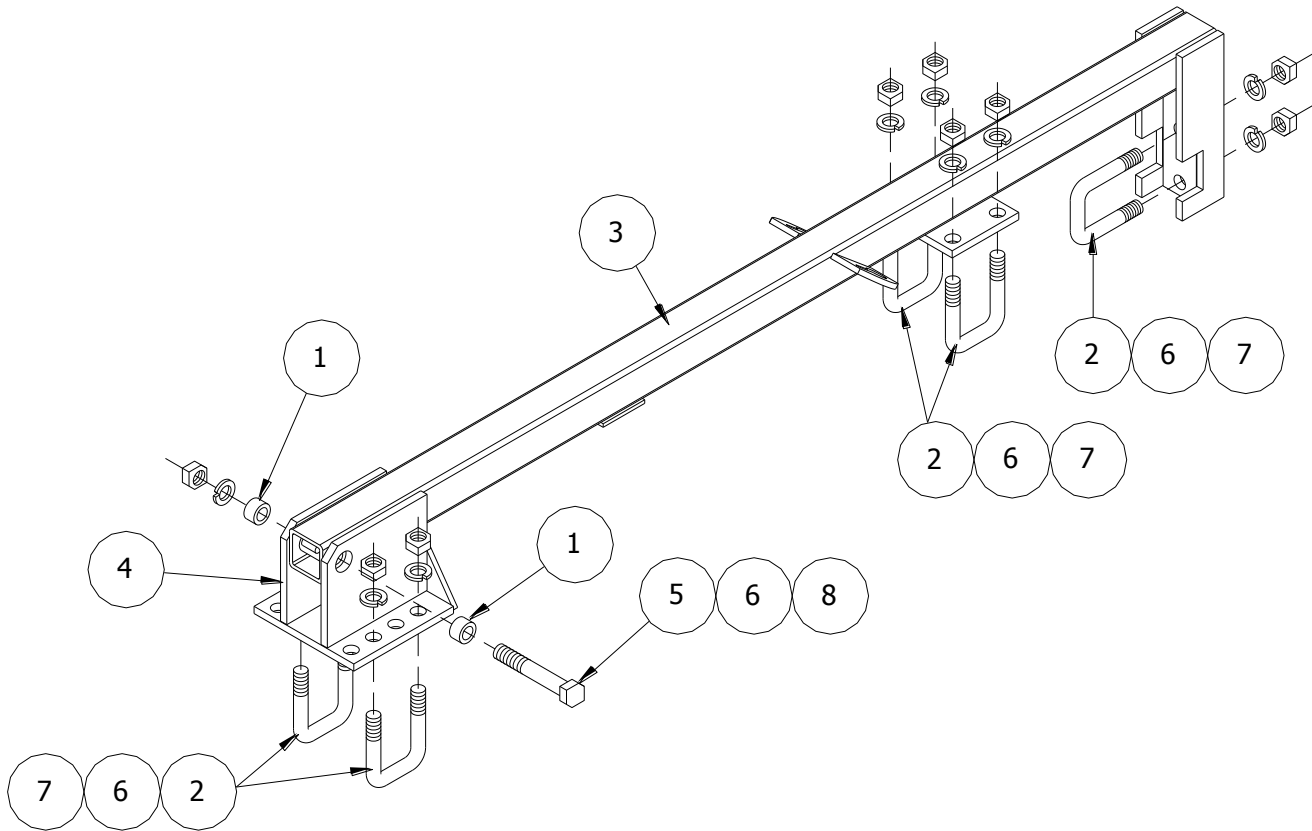


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	04-024-001		PIVOT BUSHING	2
2	21-050-001		U-BOLT, 5/8 X 2 11/16 X 3 5/16	4
3	21-080-071		CRUMBLER REACH WELDMENT	1
4	21-080-015		FRONT PIVOT BRACKET	1
5	48-091075		CAPSCREW, 5/8 X 2 11/16 X 3 5/16	1
6	66-010300		LOCKWASHER, 5/8	9
7	68-010300		HEX NUT, 5/8	8
8	72-020050		LOCKNUT, 5/8 G"C" PL	1

CRUMBLER REACH ASSEMBLY

(21-082-083)

(For Mini Skip-Row Field Culticators)

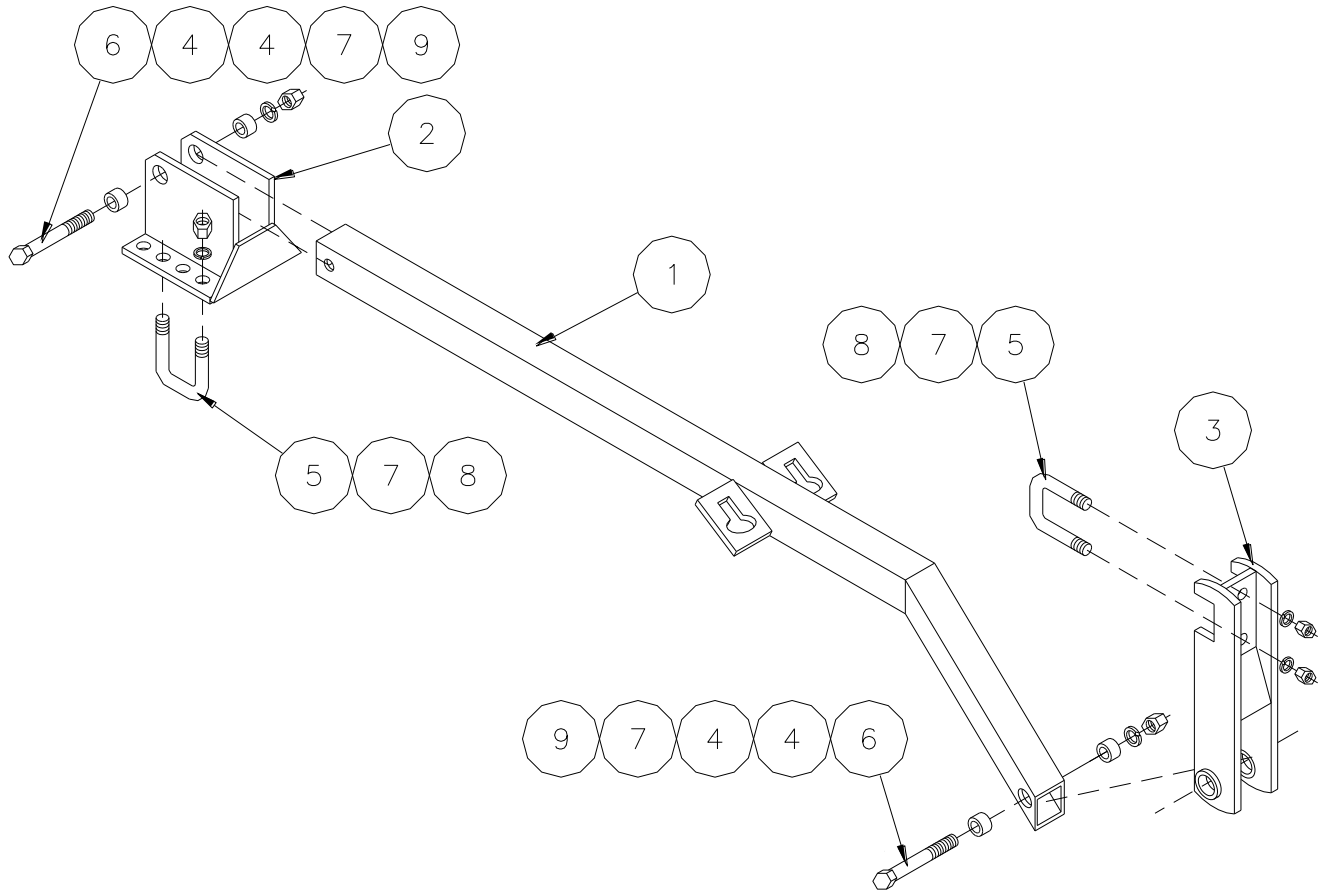


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	04-024-001		PIVOT BUSHING	2
2	21-050-001		U-BOLT, 5/8 X 2 11/16 X 3 5/16	4
3	21-080-098		CRUMBLER REACH WELDMENT	1
4	21-080-015		FRONT PIVOT BRACKET	1
5	48-091075		CAPSCREW, 5/8 X 2 11/16 X 3 5/16	1
6	66-010300		LOCKWASHER, 5/8	11
7	68-010300		HEX NUT, 5/8	10
8	72-020050		LOCKNUT, 5/8 G"C" PL	1

SINGLE CRUMBLER MOUNTING BUNDLE

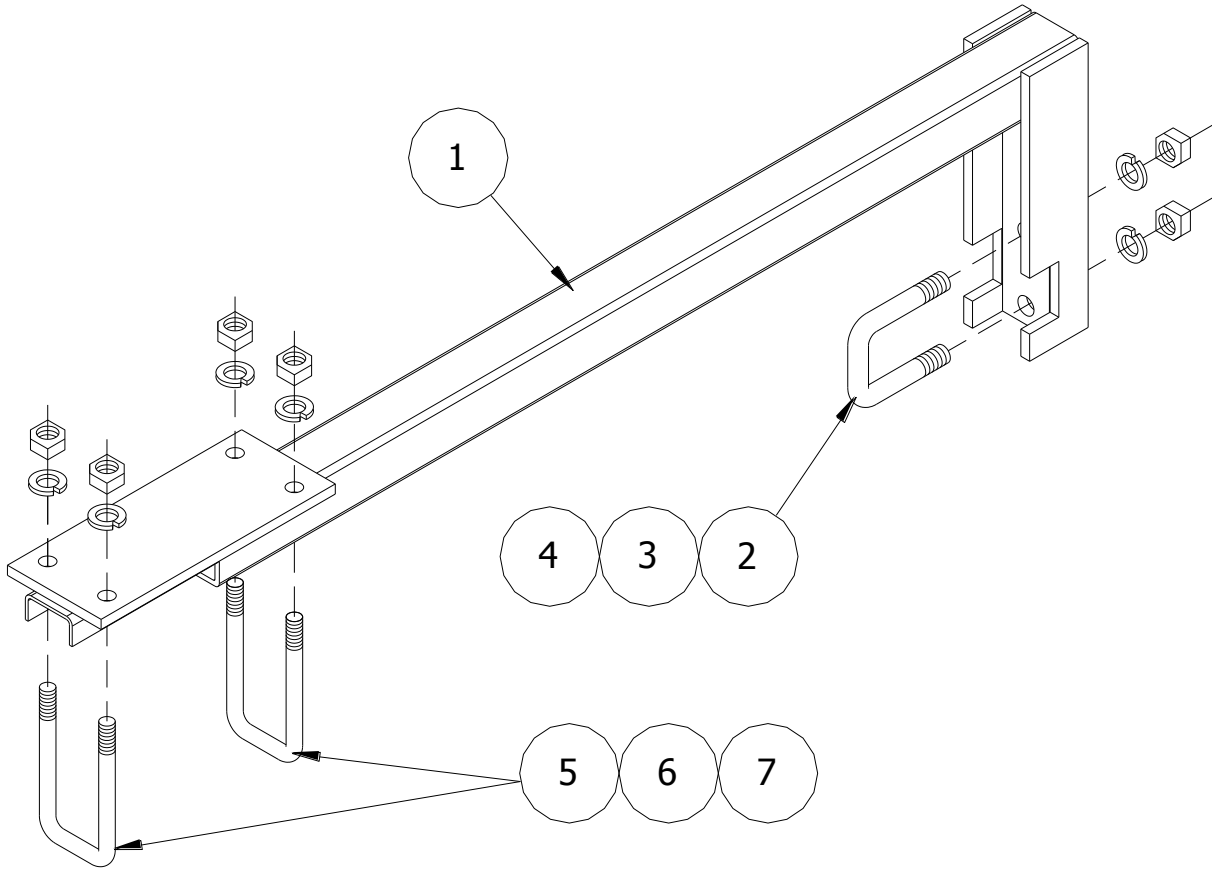
(For All Models)
(21-082-042)

(OPTIONAL)
(High Clearance)
(21-082-076)



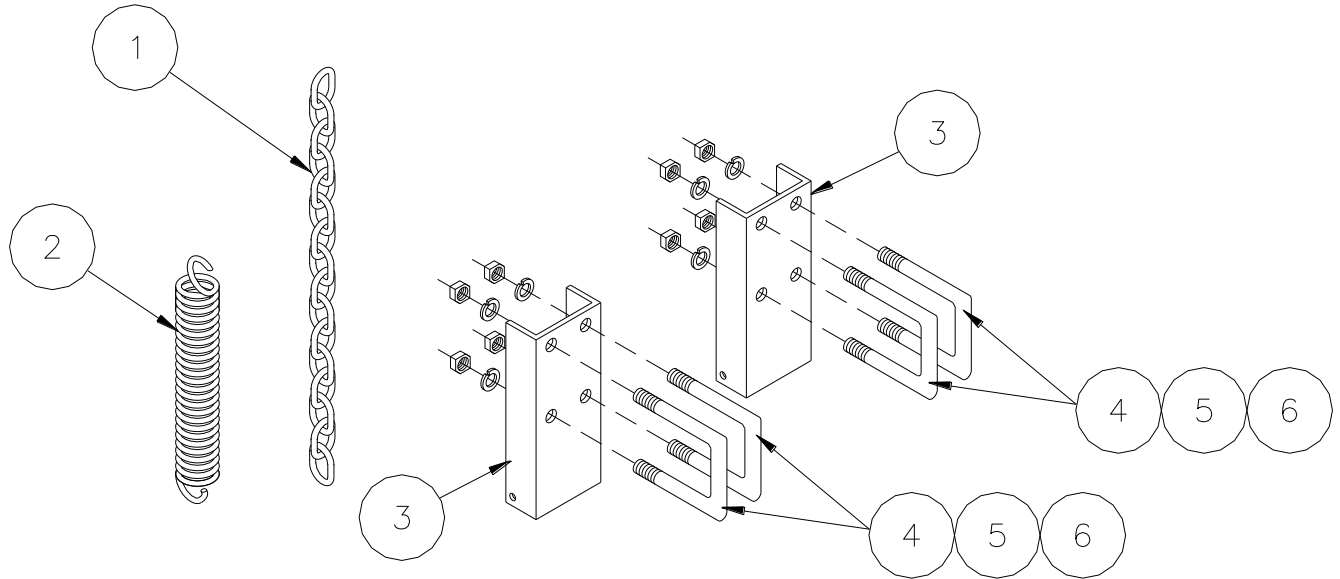
ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				-042	-076
1A	21-080-008		PIVOT BEAM	1	-
	21-080-088		H.C. PIVOT BEAM	-	1
2	21-080-015		FRONT PIVOT BRACKET	1	1
3	21-080-014		CRUMBLER MOUNTING BRACKET	1	1
4	04-024-001		PIVOT BUSHING, 9/16	4	4
5	21-050-001		U-BOLT, 5/8 X 2 11/16 X 3 5/16	3	3
6	48-091075		CAPSCREW, 5/8 X 2 11/16 X 3 5/16	3	3
7	66-010300		LOCKWASHER, 5/8	8	8
8	68-010300		HEX NUT, 5/8	6	6
9	72-020050		LOCKNUT, 5/8 G"C" PL	2	2

**REACH EXTENSION
(OPTIONAL)
(21-082-090)**



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-102		REACH EXTENSION	1
2	21-050-001		U-BOLT, 5/8 X 2 11/16 X 3 5/16	1
3	66-010300		LOCKWASHER, 5/8	2
4	68-010300		HEX NUT, 5/8	2
5	04-050-087		U-BOLT, 1/2 X 2 17/32 X 4	2
6	66-010250		LOCKWASHER, 1/2 PLT	4
7	68-010250		HEX NUT, 1/2 PLT	4

**H.D. SPRING SUPPORT
(For All Models)
(21-082-067)**



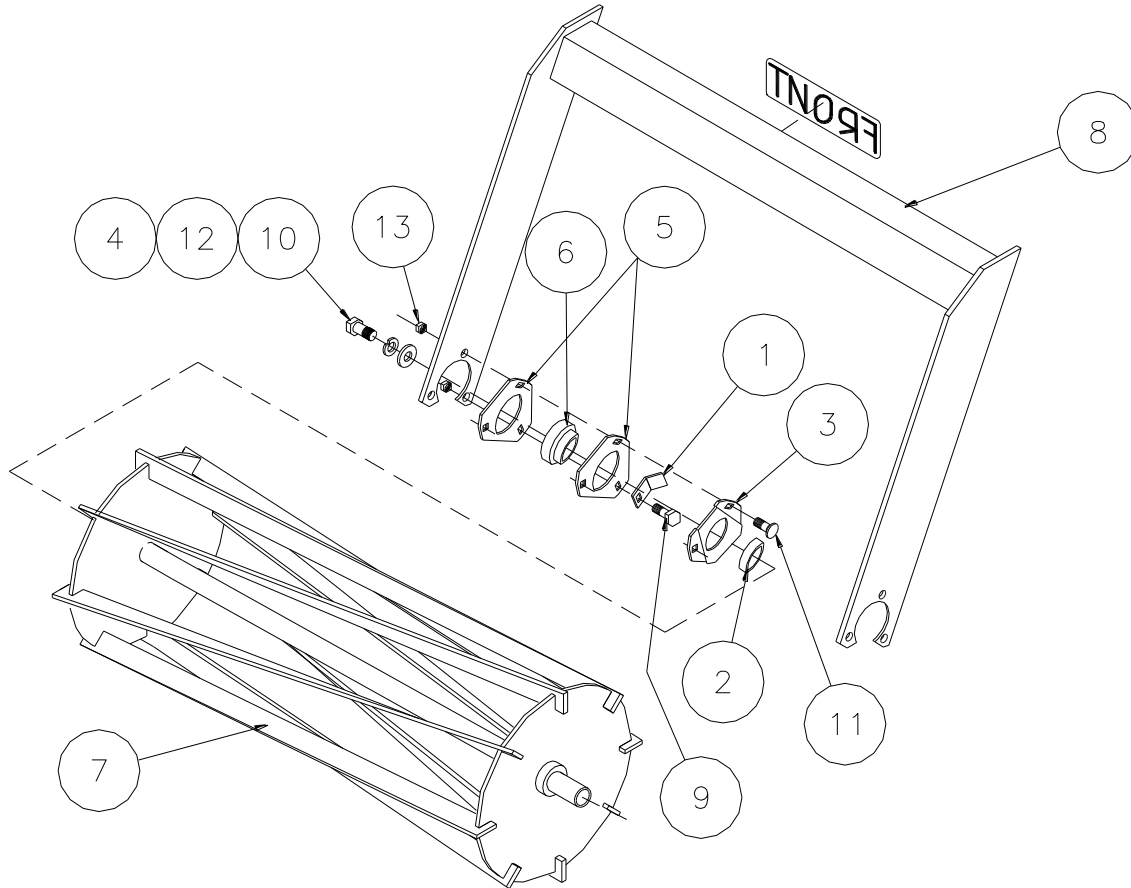
ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	03-050-003		3/16 PROOF CHAIN - 26 LINKS	2
2	21-050-016		SPRING. 1.56 X 9.5 EXT.	4
3	21-027-001		TENSION SPRING BRACKET	2
4	21-050-002		"U"-BOLT	4
5	66-010250		LOCKWASHER, 1/2 PLT	8
6	68-010250		HEX NUT, 1/2 PLT	8

SINGLE CRUMBLER ASSEMBLY

(21-082-059) (56")

(21-082-080) (74")

(21-082-060) (82")

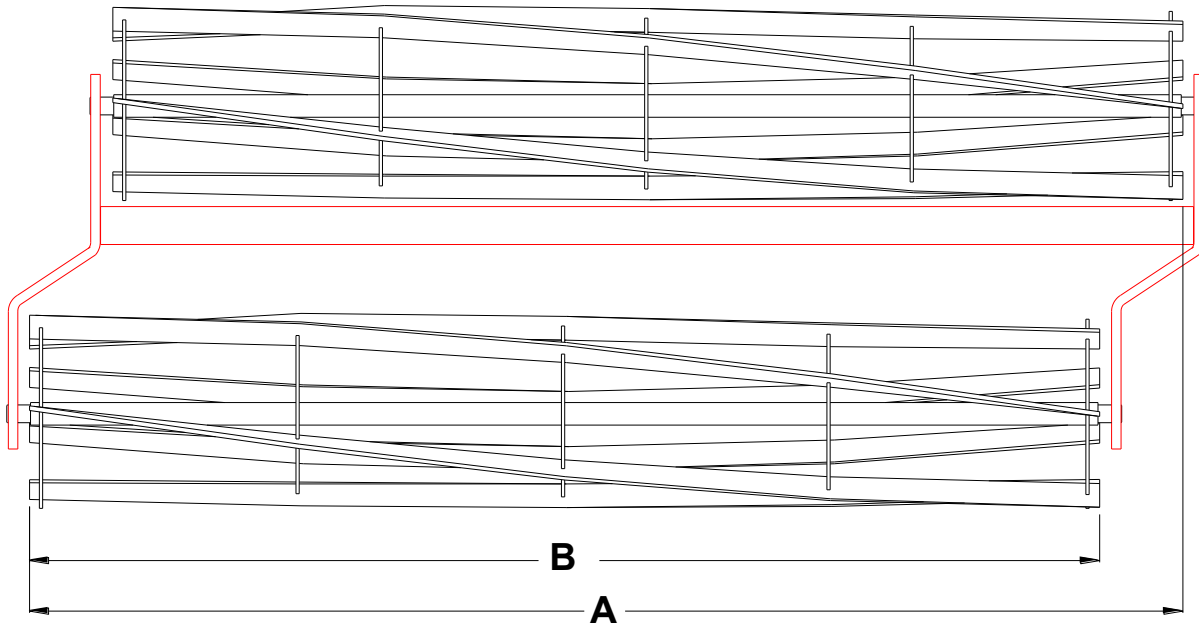


ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY		
				56"	74"	82"
1	21-023-116		CRUMBLER SCRAPER	2	2	2
2	21-024-056		TRASH SPACER	2	2	2
3	21-027-006		SEAL GUARD	2	2	2
4	04-050-013		1 5/16" WASHER H.T.	2	2	2
5	03-051-012		#52 MSTR FLANGETTE	4	4	4
6	04-051-001		5/16" TRI-PLY	2	2	2
7	21-080-053		56-5/8" CRUMBLER WELDMENT	1	-	-
	21-080-063		74-3/32" CRUMBLER WELDMENT	-	1	-
	21-080-060		81-29/32" CRUMBLER WELDMENT	-	-	1
8	21-080-072		56" SINGLE CRUMBLER	1	-	-
	21-080-096		74" SINGLE CRUMBLER	-	1	-
	21-080-073		82" SINGLE CRUMBLER	-	-	1

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY		
				56"	74"	82"
9	48-090037		CAPSCREW, 5/16 X 1 1/4 G5 PLT	2	2	2
10	48-090930		CAPSCREW, 5/8 X 1 1/2 G5 PLT	2	2	2
11	52-050010		CARRIAGE BOLT, 5/16 X 1 G5 PLT	2	2	2
12	66-010300		LOCKWASHER, 5/8 PLT	2	2	2
13	79-020049		LOCKNUT, 5/16 FLANGE WHIZ	6	6	6

S-TINE FIELD CULTIVATOR CRUMBLER I.D. CHART

Information to assist in identifying crumbler sections and crumbler reels for KMC Field Cultivators.



TANDEM CRUMBLER ASSEMBLY	A
21-082-040	42-1/8"
21-082-041	62-1/8"
21-082-048	79-9/16"
21-082-049	87-3/8"
21-082-077	93-3/8"

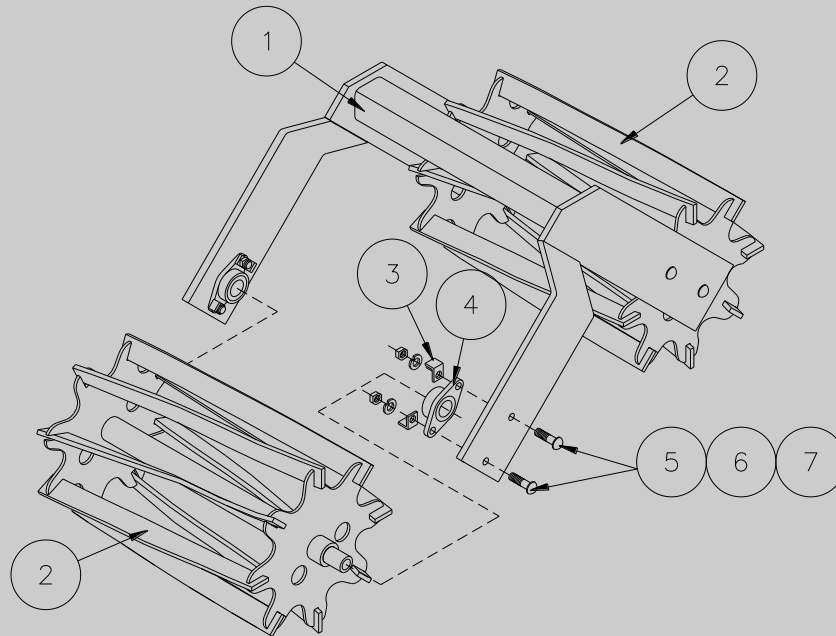
SINGLE REEL WELDMENT	B
21-080-052	36-5/8"
21-080-053	58-5/8"
21-080-063	74-3/32"
21-080-060	81-29/32"
21-080-092	87-29/32"

PLEASE NOTE: THE ABOVE MEASUREMENTS ARE FROM THE TIP OF THE CRUMBLER BLADE IN A STRAIGHT LINE TO THE TIP OF THE BLADE AT THE OTHER END. DO NOT FOLLOW THE SPIRAL.

CRUMBLER ASSEMBLY (For Machines Prior to 1986)

(21-082-010)
(21-082-011)

(40")
(60")



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				40"	60"
1	21-080-020	(-1985)	40" FRAME WELDMENT	(1)	-
	21-080-021	(-1985)	60" FRAME WELDMENT	-	(1)
2	21-050-006	(1984)	40" CRUMBLER REEL	(2)	-
	21-080-017	(1995)	40" CRUMBLER WELDMENT	(2)	-
	21-050-007	(1984)	60" CRUMBLER REEL	-	(2)
	21-080-018	(1995)	40" CRUMBLER WELDMENT	-	(2)
3	21-023-054	(-1985)	CRUMBLER SCRAPER	(4)	(4)
4	21-051-001	(1984)	2H CAST BEARING UNIT, 15/16"	(4)	(4)
	21-051-004	(1995)	2H CAST BEARING UNIT, 1"	(4)	(4)
	21-051-002	(1984)	205 TRI-PLY BEARING UNIT, 15/16"	(4)	(4)
	21-051-005	(1995)	205 TRI-PLY BEARING UNIT, 1"	(4)	(4)
	21-051-003	(-1985)	CAST BEARING HOUSING	(4)	(4)
5	60-020075	(-1985)	PLOW BOLT, 7/16 X 1 3/4	(8)	(8)
6	66-010200	(-1985)	LOCKWASHER, 7/16	(8)	(8)
7	68-010200	(-1985)	HEX NUT, 7/16	(8)	(8)

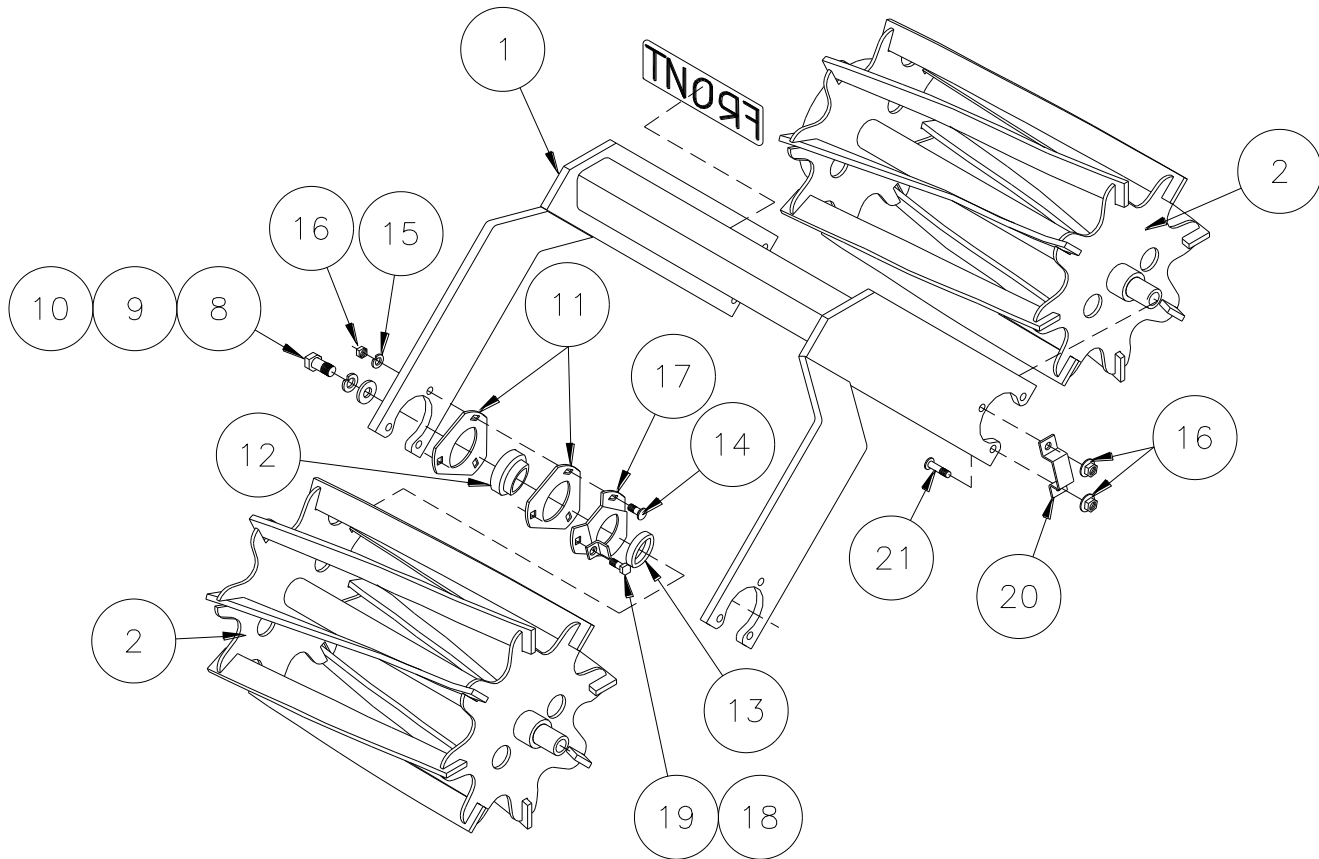
* How to Identify Crumblers (Item 2)
Crumblers used in 1984 contained 1" slats.
Crumblers used in 1985 contained 1 1/4" slats.

CRUMBLER ASSEMBLY

(For Machines From 1986 to Present)

(21-082-040) (42")

(21-082-041) (62")



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				42"	62"
1	21-080-048		42" FRAME WELDMENT	1	-
	21-080-049		62" FRAME WELDMENT	-	1
2	21-050-052		36-5/8" CRUMBLER WELDMENT	2	-
	21-080-053		56-5/8" CRUMBLER WELDMENT	-	2
3	21-023-054		CRUMBLER SCRAPER	4	4
8	48-090930		CAPSCREW, 5/8 X 1 1/2 G5 PLT	4	4
9	66-010300		LOCKWASHER, 5/8	4	4
10	04-050-013		WASHER, 1 5/16 H.T.	4	4
11	03-051-012		FLANGETTE, NO 52 MSTR	8	8
12	04-051-001		BEARING, 15/16 TRI-PLY	4	4
13	21-024-056		TRASH SPACER	4	4
14	52-030150		CARRIAGE SCREW, 5/16 X 1 G2 PLT	4	4

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY	
				42"	62"
15	66-010100	(1986-1989)	LOCKWASHER, 5/16 PLT	(12)	(12)
16	72-010025	(1986-1989)	LOCKNUT, 5/16 PLT	(12)	(12)
	79-020049	(1990-)	FLANGE WHIZ LOCKNUT, 5/16 PLT	12	12
17	21-027-006		SEAL GUARD	4	4
18	21-023-116	(1987-)	CRUMBLER SCRAPER	4	4
19	48-040066	(1987-)	CAPSCREW, 5/16 X 1 1/4 G2 PLT	4	4
20	21-023-136	(1990-)	BOLT COVER	2	2
21	52-030160	(1990-)	CARRIAGE BOLT, 5/16 X 1 1/4 G2 PLT	4	4

* How to Identify Crumblers (Item 2)

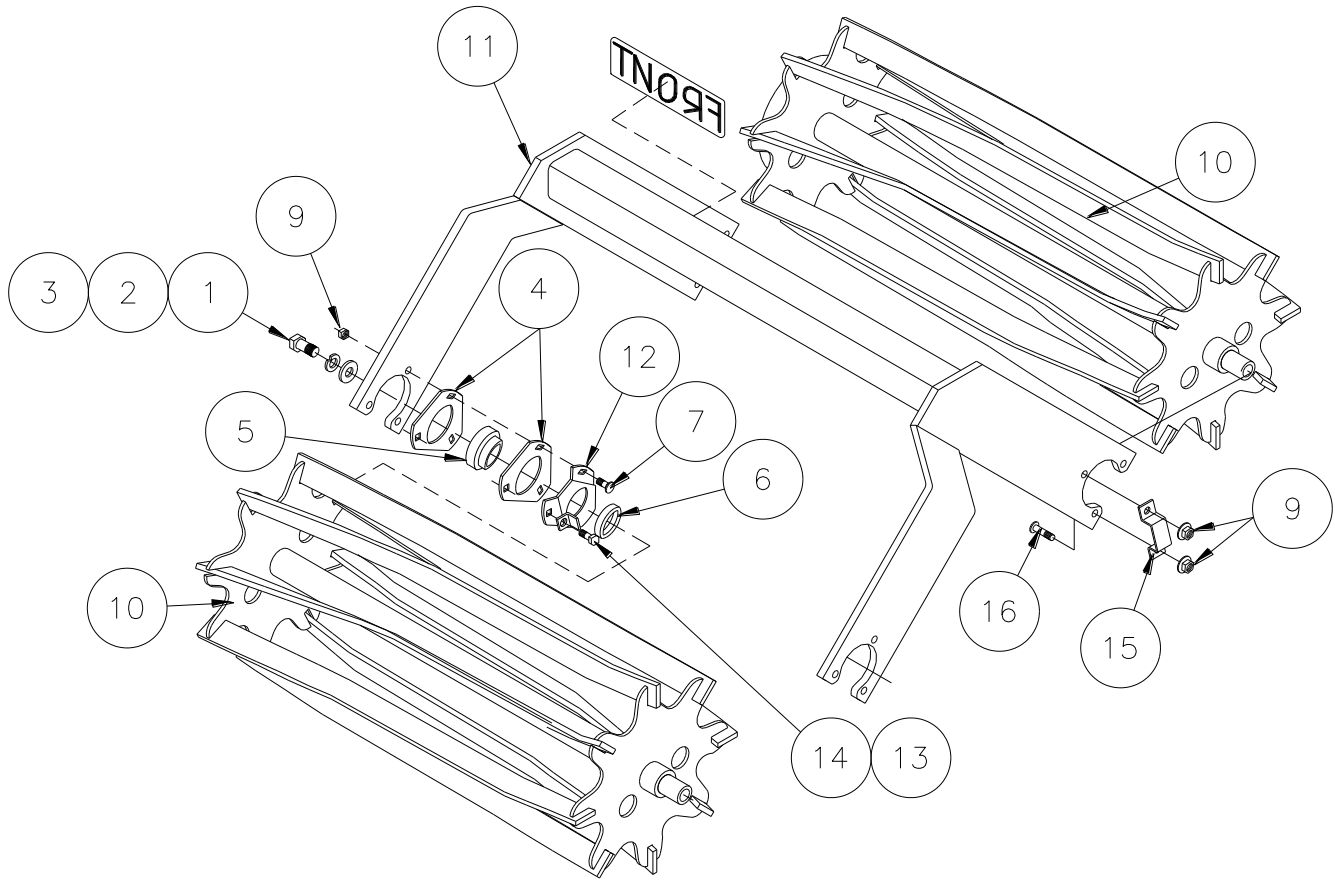
Crumblers used from 1986 contained 1 1/4" slats and flangettes (Item 11).

CRUMBLER ASSEMBLY

(21-082-048) (80")

(21-082-049) (87")

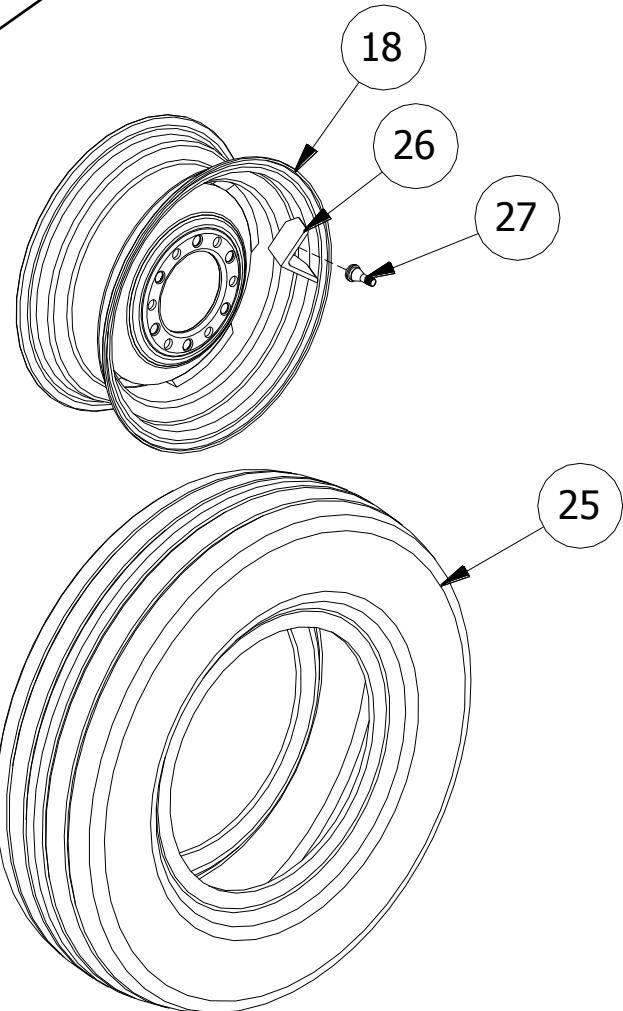
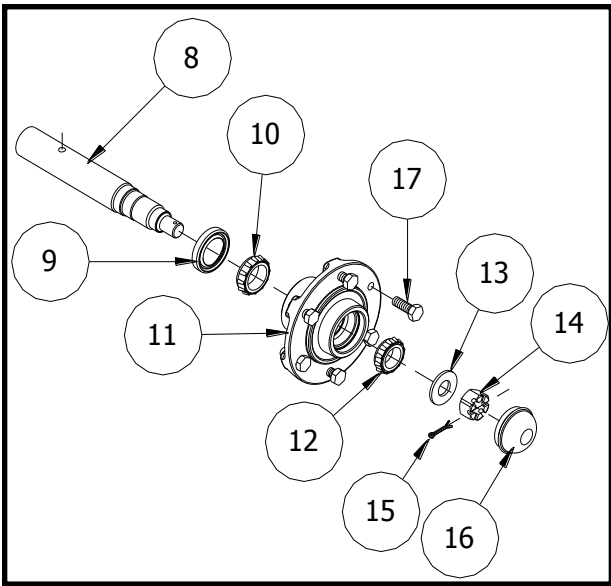
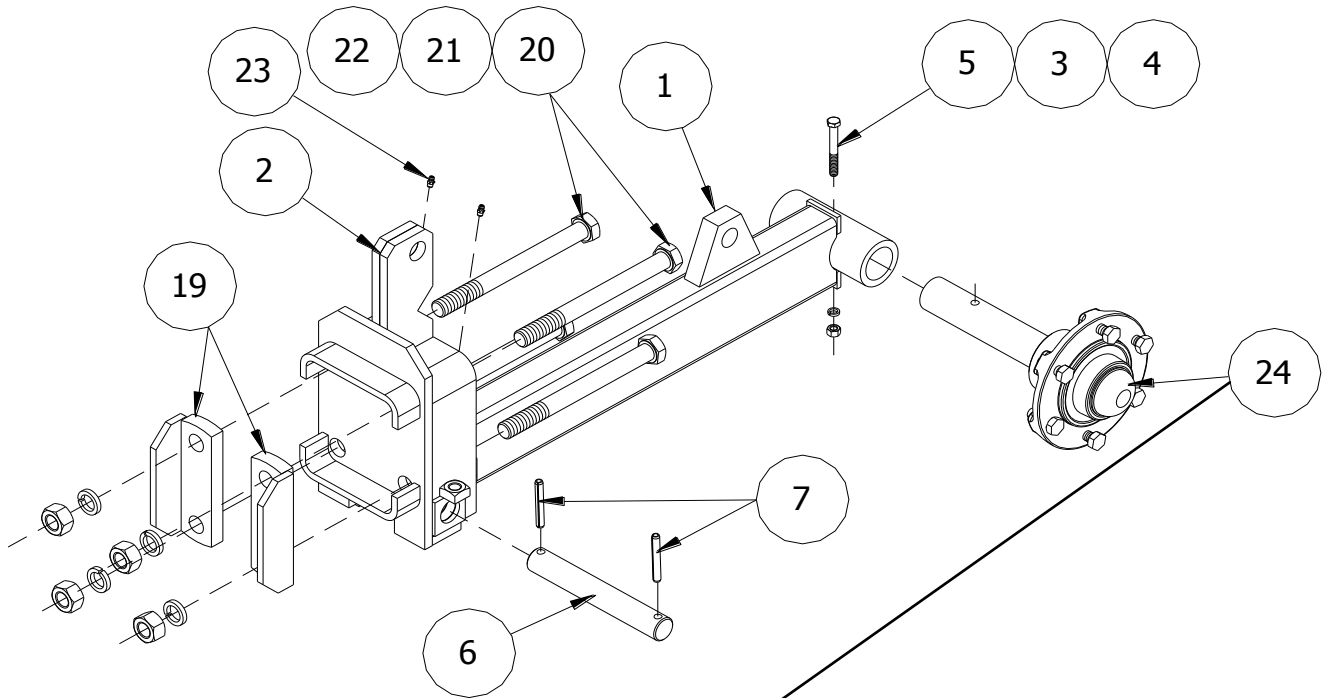
(21-082-077) (93")



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY		
				80"	87"	93"
1	48-090930		CAPSCREW, 5/8 X 1 1/2	4	4	4
2	66-010300		LOCKWASHER, 5/8 PTL	4	4	4
3	04-050-013		WASHER, 1 5/16 H.T.	4	4	4
4	03-051-012		FLANGETTE, #52 MSTR	8	8	8
5	04-051-001		BEARING, 15/16" TRI-PLY	4	4	4
6	21-024-056		TRASH SPACER	4	4	4
7	52-030150		CARRIAG SCREW, 5/16 X 1 G2 PLT	4	4	4
8	66-10100	(-1989)	LOCKWASHER, 5/16	(12)	(12)	(12)
9	68-010100	(-1989)	HEX NUT, 5/16	(12)	(12)	(12)
	79-020049	(1990-)	LOCKNUT, 5/16 FLANGE WHIZ	12	12	12
10	21-080-063		74-3/32" CRUMBLER WELDMENT	1	-	-
	21-080-060		81-29/32" CRUMBLER WELDMENT	-	1	-
	21-080-092		87-29/32" CRUMBLER WELDMENT	-	-	1

ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY		
				80"	87"	93"
11	21-080-064		80" CRUMBLER FRAME WELDMENT	1	-	-
	21-080-061		87" CRUMBLER FRAME WELDMENT	-	1	-
	21-080-091		93" CRUMBLER FRAME WELDMENT	-	-	1
12	21-027-006		SEAL GUARD	4	4	4
13	21-023-116		CRUMBLER SCRAPER	4	4	4
14	48-040066		CAPSCREW, 5/16 X 1 1/4 G2 PLT	4	4	4
15	21-023-136		BOLT COVER	1	1	1
16	52-030160		CARRIAGE BOLT, 5/16 X 1 1/4 G2 PLT	4	4	4

GAUGE WHEEL
(21-082-039)
(For Rigid & Folding Pull-Type)



ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-046		GAUGE WHEEL ARM	1
2	21-080-045		GAUGE WHEEL BRACKET	1
3	66-010150		LOCKWASHER, 3/8 PLT	1
4	68-010150		HEX NUT, 3/8 PLT	1
5	48-090250		CAPSCREW, 3/8 X 3 G5 PLT	1
6	21-026-010		WHEEL PIVOT PIN	1
7	02-050-003		ROLL PIN, 3/8 X 2 3/4	2
√8	21-026-013	SEE NOTE	Q-888 SPINDLE 12" W/HOLE	1
√9	02-056-011		SEAL (16284 CR)	1
√10	02-051-041		INNER BEARING (JL69349)	1
√11	02-058-033		Q-888 HUB W/CUPS	1
	02-051-005		CUPS	1
	02-051-040		CUPS	1
√12	02-051-006		OUTER BEARING (LM67048)	1
√13	02-050-019		WASHER, 15/16 ID X 2 OD X .160 THK	1
√14	68-030050		SLOTTED NUT, 7/8 NF HEX	1
√15	76-010050		COTTER PIN, 5/32 X 1 1/4	1
√16	02-058-005		HUB CAP	1
√17	02-058-004		WHEEL BOLT, 1/2 X 1 NF -20	1
*18	02-058-008		WHEEL (RIM) 15 X 6	1
19	06-080-054		LIFT ASSIST T.B. CAP	2
20	48-100400		CAPSCREW, 7/8 X 9 1/2 G5 PLT	4
21	66-010400		LOCKWASHER, 7/8 PLT	4
22	68-010400		HEX NUT, 7/8 PLT	4
23	02-050-005		GREASE FITTING, 1/4-28	1
24	21-081-003		ASSEMBLY, Q-888 12" SPINDLE	1

*Sold Separately From Bundle.

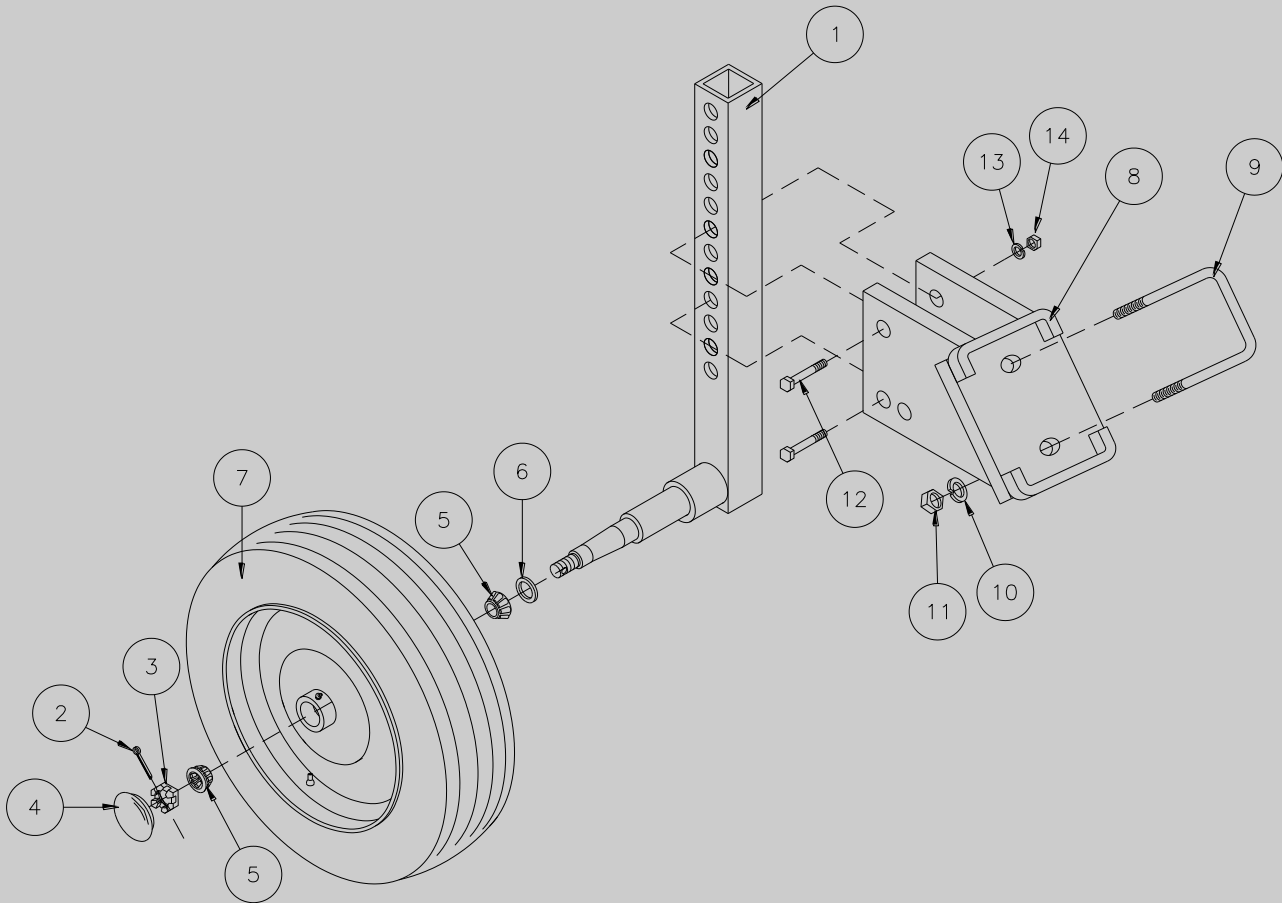
√ Items Make Up Item 24 (21-081-003)

NOTE: Item 8 (21-026-013) replaces (02-058-041) on machines prior to fall of 1987.

15 x 6 RIM W/TIRE
(21-082-128)

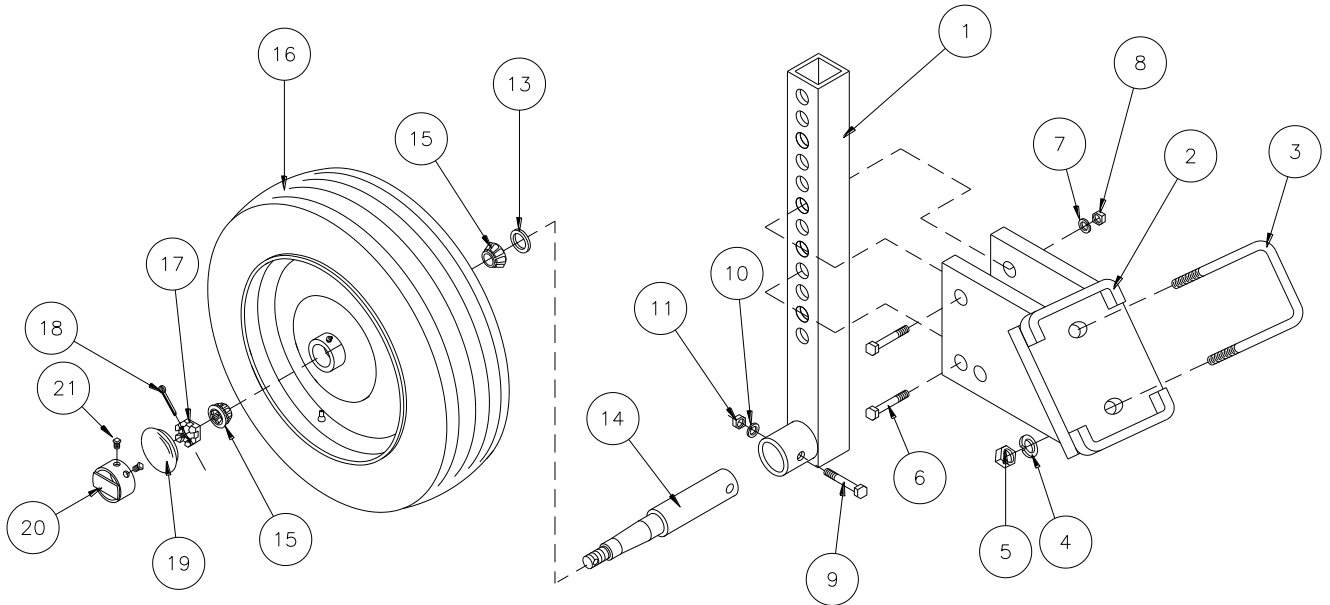
ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
25	21-058-011		TIRE, 7.60 -15SL	1
26	21-058-009		WHEEL, 15 X 6 W/PROTECTOR	1
27	18-050-021		STEM, VALVE	1

5 X 8 GAUGE WHEEL (2 X 4)
 (21-082-012)
 (USED ON MACHINE PRIOR TO 1988)



ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-011	(-1985)	GAUGE WHEEL ARM	
	21-080-054	(1986-1987)	GAUGE WHEEL ARM, 1"-14	1
2	76-010100		COTTER PIN, 3/16 X 1 1/2	1
3	68-030101		SLOTTED NUT, 1-14 N.F. THIN HEX , PLN	1
4	21-058-001		GREASE CAP, SHORT	1
5	02-051-015		BEARING CONE (L44643)	2
6	02-056-007		SEAL (NAT. 204029X)	1
7	03-058-006		TUBELESS TIRE WWHEEL, 5.70	1
8	21-080-010		BRACKET, GAUGE WHEEL	1
9	05-050-003		"U"-BOLT, 5/8 X 4 11/16 X 3 3/8	1
10	66-010300		LOCKWASHER, 5/8	2
11	68-010300		HEX NUT, 5/8 PLT	2
12	48-090750		CAPSCREW, 1/2 X 3 1/2 G5 PLT	2
13	66-010250		LOCKWASHER, 1/2 PLT	2
14	68-010250		HEX NUT, 1/2 PLT	2

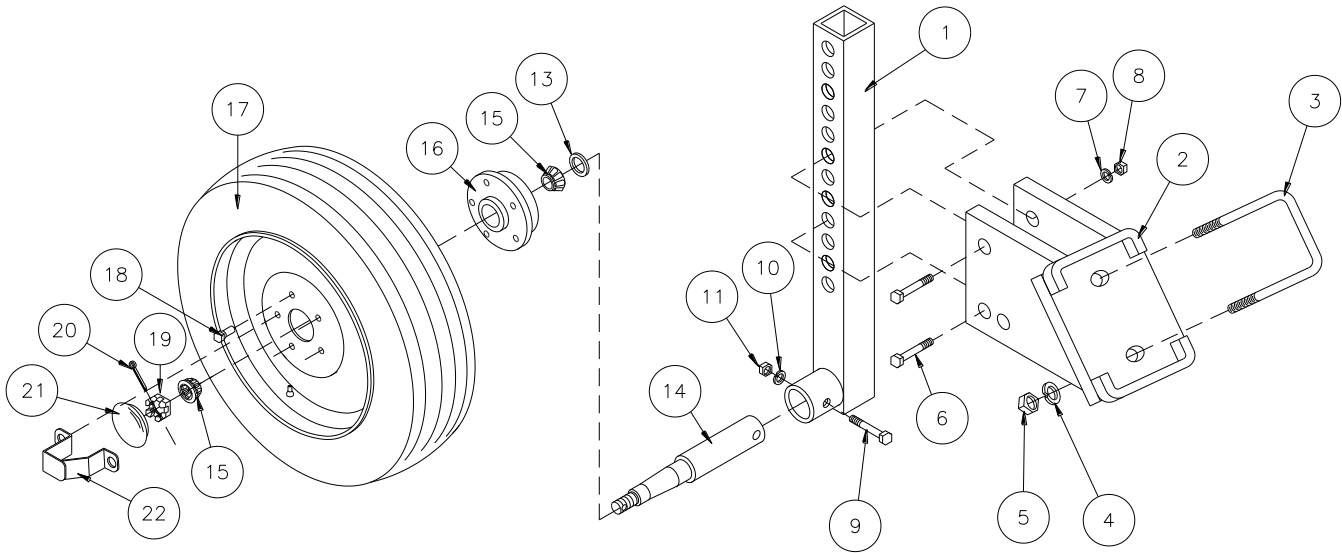
8 X 8 GAUGE WHEEL (2 X 4)
 (21-082-068)
 (USED ON MACHINE FROM 1988 TO PRESENT)



ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-080		GAUGE WHEEL ARM	1
2	21-080-010		BRACKET, GAUGE WHEEL	1
3	05-050-003		"U"-BOLT, 5/8 X 4 11/16 X 3 3/8	1
4	66-010300		LOCKWASHER, 5/8 REG PLT	2
5	68-010300		HEX NUT, 5/8 PLT	2
6	48-090750		CAPSCREW, 1/2 X 2 1/2 G5 PLT	2
7	66-010250		LOCKWASHER, 1/2" REG PLT	2
8	68-010250		HEX NUT, 1/2 PLT	2
9	48-090040		CAPSCREW, 5/16 X 2 1/4 G5 PLT	1
10	66-010100		LOCKWASHER, 5/16 REG PLT	1
11	68-010100		HEX NUT, 5/16 PLT	1
13	02-056-007		SEAL (NAT 204029X)	1
14	21-058-006		SPINDLE, 6 3/4 W/HOLE	1
15	02-051-015		CONE, BEARING	2
16	21-058-003		WHEEL, W/TIRE 18 X 18.5 X 8	1
17	68-030101		SLOTTED NUT, 1-14 NF THIN HEX PLN	1
18	76-010100		COTTER PIN, 3/16 X 1 1/2 PLT	1
19	16-058-002		CAP, DUST	1
20	03-080-944		RING, HUBCAP	1
21	54-010200		SETSCREW, 1/2 X 5/8 SQ HD CUPPT	2

8 X 10 GAUGE WHEEL (2 X 4)

(21-082-013)



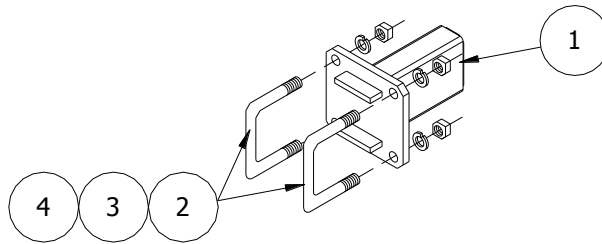
ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-080		GAUGE WHEEL ARM	1
2	21-080-010		BRACKET, GAUGE WHEEL	1
3	05-050-003		"U"-BOLT, 5/8 X 4 11/16 X 3 3/8	1
4	66-010300		LOCKWASHER, 5/8 REG PLT	2
5	68-010300		HEX NUT, 5/8 PLT	2
6	48-090750		CAPSCREW, 1/2 X 2 1/2 G5 PLT	2
7	66-010250		LOCKWASHER, 1/2" REG PLT	2
8	68-010250		HEX NUT, 1/2 PLT	2
9	48-090040		CAPSCREW, 5/16 X 2 1/4 G5 PLT	1
10	66-010100		LOCKWASHER, 5/16 REG PLT	1
11	68-010100		HEX NUT, 5/16 PLT	1
13	02-056-007		SEAL (NAT 204029X)	1
14	21-058-006		SPINDLE, 6 3/4 W/HOLE	1
15	02-051-015		CONE, BEARING	2
16	03-058-008		HUB, 45° ZERK W/CUPS	1
17	03-058-007		TIRE, 8 X 10 TUBELESS W/WHEEL	1
18	03-058-009		BOLT, 1/2 X 7/8-20 WHEEL	5
19	68-030101		SLOTTED NUT, 1-14 NF THIN HEX PLN	1
20	76-010100		COTTER PIN, 3/16 X 1 1/2 PLT	1
21	16-058-002		CAP, DUST	1
22	03-080-943		BRACKET, HUBCAP	1

GAUGE WHEEL, (3 X 4) (FOR 116" MACHINES)
(21-082-046)

ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
23	15-023-023		TOOL BAR CAP, 4"	2
24	48-091100		CAPSCREW, 5/8 X 2 G5 PLT	4
25	66-010300		LOCKWASHER, 5/8 PLT	4
26	68-010300		HEX NUT, 5/8 PLT	4

On 116" machines used in place of "U" bolt (05-050-003) when mounting gauge wheel.

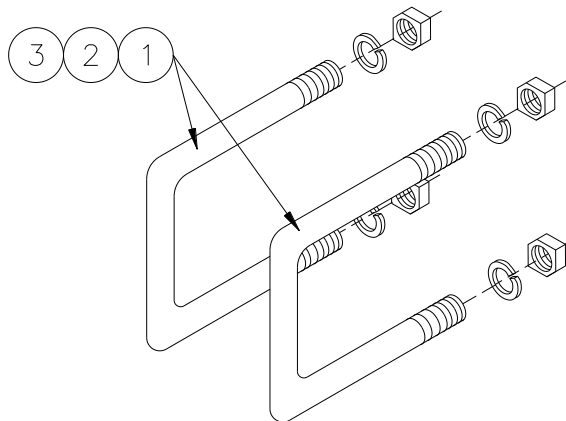
8 X 10 GAUGE WHEEL EXTENSION
(21-082-032)



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-039		EXTENSION	2
2	05-050-003		U-BOLT, 5/8 X 4 11/16 X 3 3/8	4
3	66-010300		LOCKWASHER, 5/8 PLT	8
4	68-010300		HEX NUT, 5/8 PLT	8

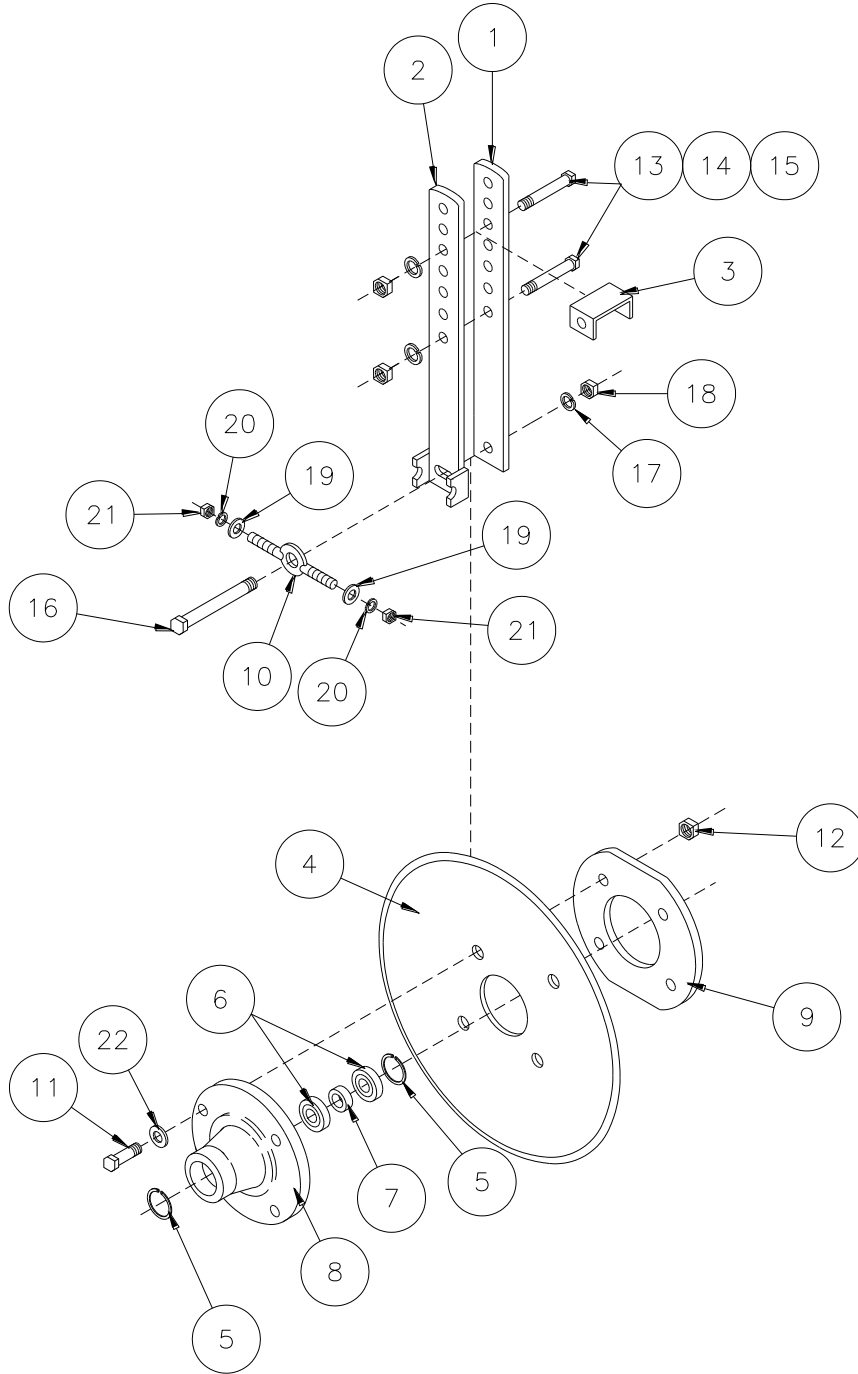
5/8" U-BOLT BUNDLE
(21-082-037)

**FOR 236 & 260
FOLDING
MACHINES ONLY**



ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	20-050-002		U-BOLT, 5/8"	2
2	68-010300		HEX NUT, 5/8 PLT	4
3	66-010300		LOCKWASHER, 5/8 PLT	4

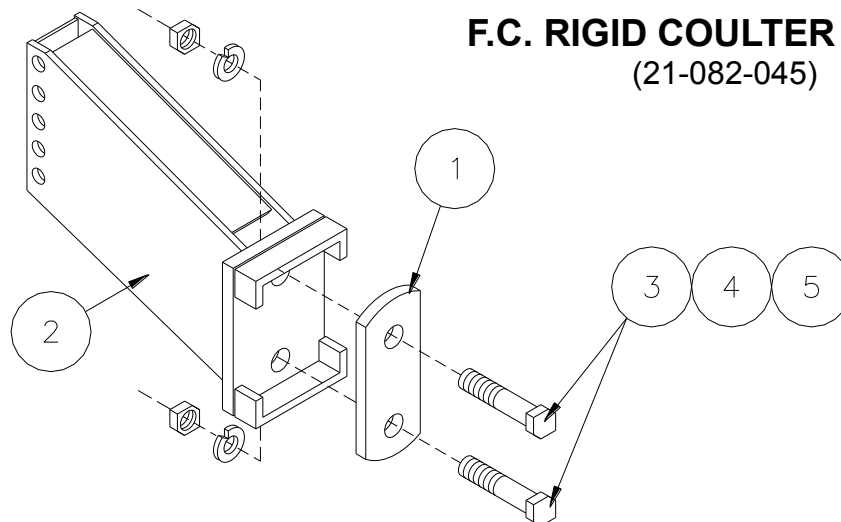
S.W. RIGID COULTER (14-082-035)



ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	14-023-033		COULTER ARM, LT	1
2	14-080-016		COULTER ARM, RT	1
3	14-027-005		COULTER SHIPPING BRACKET	1
4	02-050-030		COULTER, 20"	1
*5	04-050-078		RETAINING RING, 2 3/64"	2
*6	04-051-004		CYLINDER BEARING, 3/4	2

ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
*7	04-024-069		BEARING SPACER, 3/8	1
*8	03-057-014		COULTER HUB	1
9	03-023-064		COULTER FLANGE	1
10	04-080-052		COULTER ADJ ROD	1
11	48-060100		CAPSCREW, 3/8 X 1 1/2 G5 PLT	4
12	72-010050		LOCKNUT, 3/8 G"B" PTD & WAXED	4
13	48-091100		CAPSCREW, 5/8 X 5 G5 PLT	2
14	66-010300		LOCKWASHER, 5/8 PLT	2
15	68-010300		HEX NUT, 5/8 PLT	2
16	48-010800		CAPSCREW, 3/4 X 5 1/2 G2 PLT	1
17	66-010350		LOCKWASHER, 3/4 REG	1
18	68-010350		HEX NUT, 3/4 PLT	1
19	62-010200		FLATWASHER, 1/2 PLT	2
20	66-010250		LOCKWASHER, 1/2 PLT	2
21	68-010250		HEX NUT, 1/2 PLT	2
22	62-010050		FLATWASHER, 5/16 PLT	4

*These items make up Hub Assembly (04-081-014)

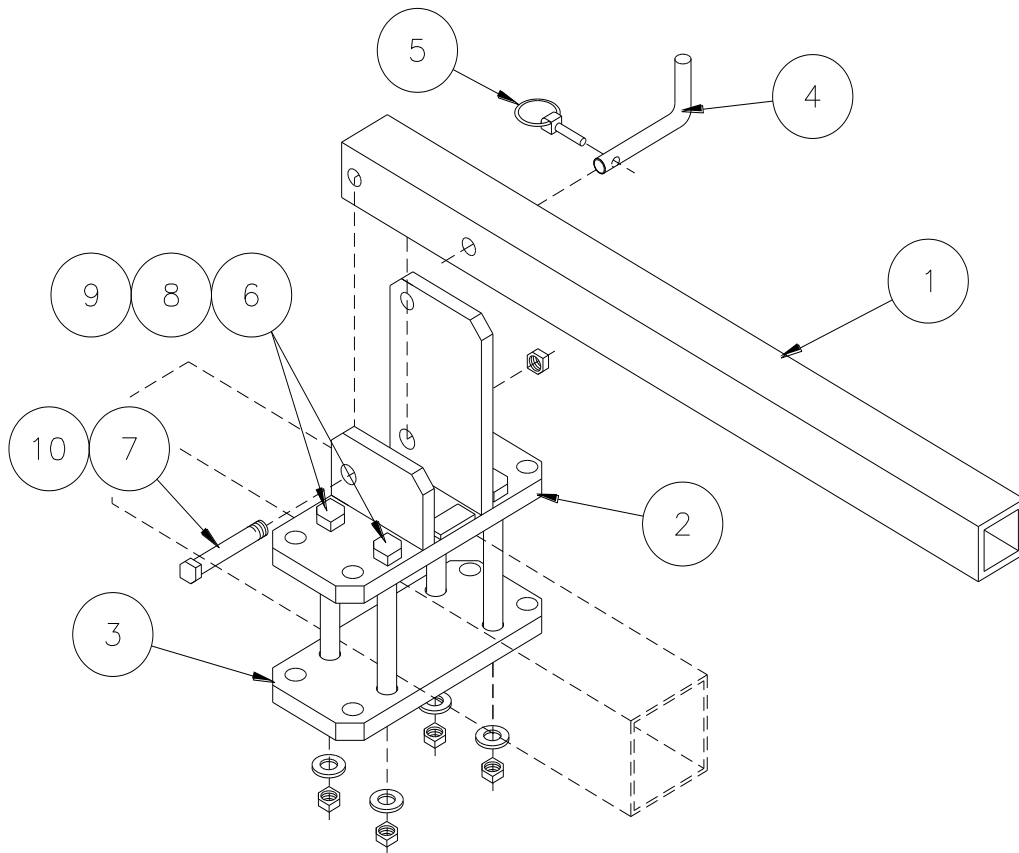


F.C. RIGID COULTER MOUNT
(21-082-045)

ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	15-023-023		4" T.B. CAP	2
2	21-080-055		F.C. RIGID COULTER MOUNT WELDT.	2
3	48-091060		CAPSCREW, 5/8 X 4 G5 PLT	4
2	68-010300		HEX NUT, 5/8 PLT	4
3	66-010300		LOCKWASHER, 5/8 PLT	4

(4 X 4) 60" MARKER
(02-082-231)

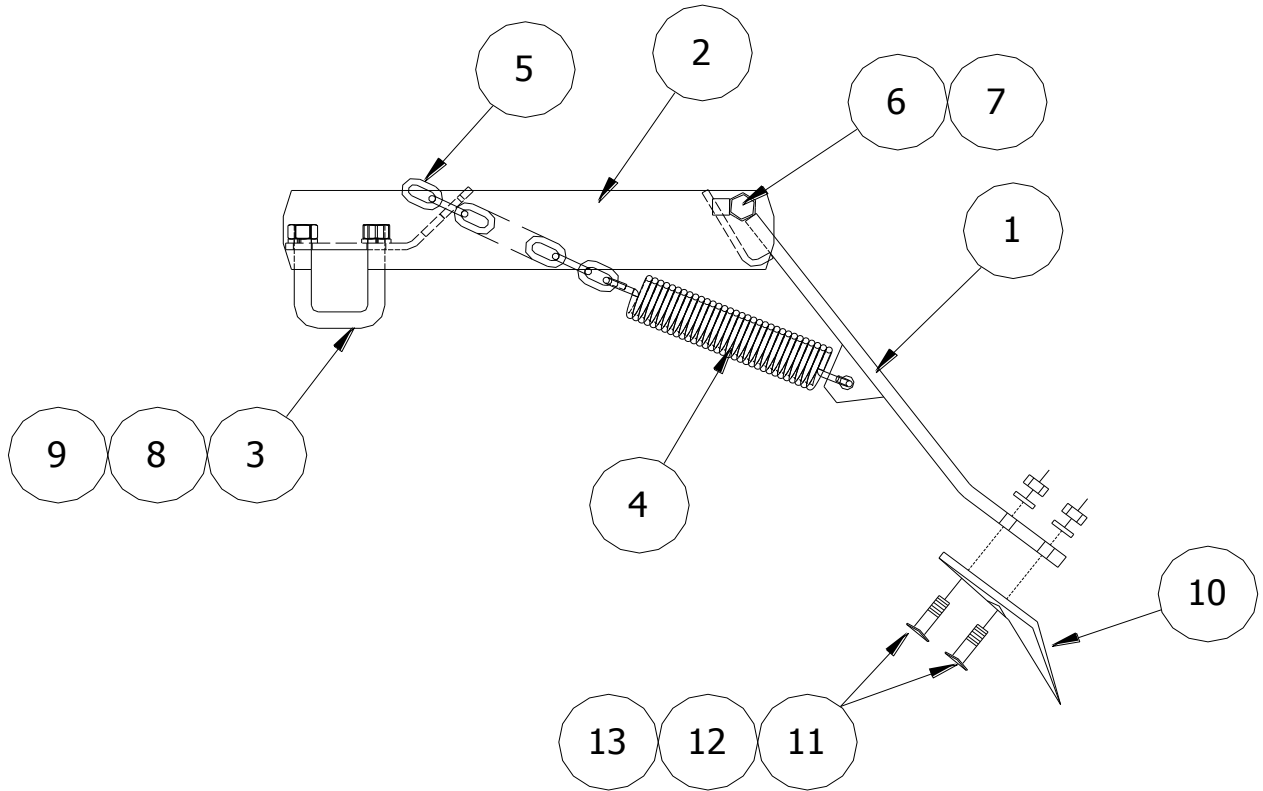
(4 X 7) 88" MARKER
(02-082-232)



ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY	
				-231	-232
1	02-024-078		TUBE, 60" ROW MARKERS	1	-
	02-024-112		TUBE, 88" ROW MARKERS	-	1
2	02-080-259		BRACKET, 4 X 4 ROW MARKERS	1	1
3	02-023-234		BASE, 4 X 4 ROW MARKERS	1	1
4	02-026-044		PIN, ADJUSTABLE PIPE	1	1
5	04-050-015		KLIK PIN, 3/16 X 1 1/4	1	1
6	48-091200		CAPSCREW, 5/8 X 6 G5 PLT	4	4
7	48-091060		CAPSCREW, 5/8 X 4 G5 PLT	1	1
8	68-010300		HEX NUT, 5/8 PLT	4	4
9	66-010300		LOCKWASHER, 5/8 PLT	4	4
10	72-020050		LOCKNUT, 5/8 STOVER G"C" PLT	1	1

F.C. REAR MARKER ASSEMBLY

(21-082-047)



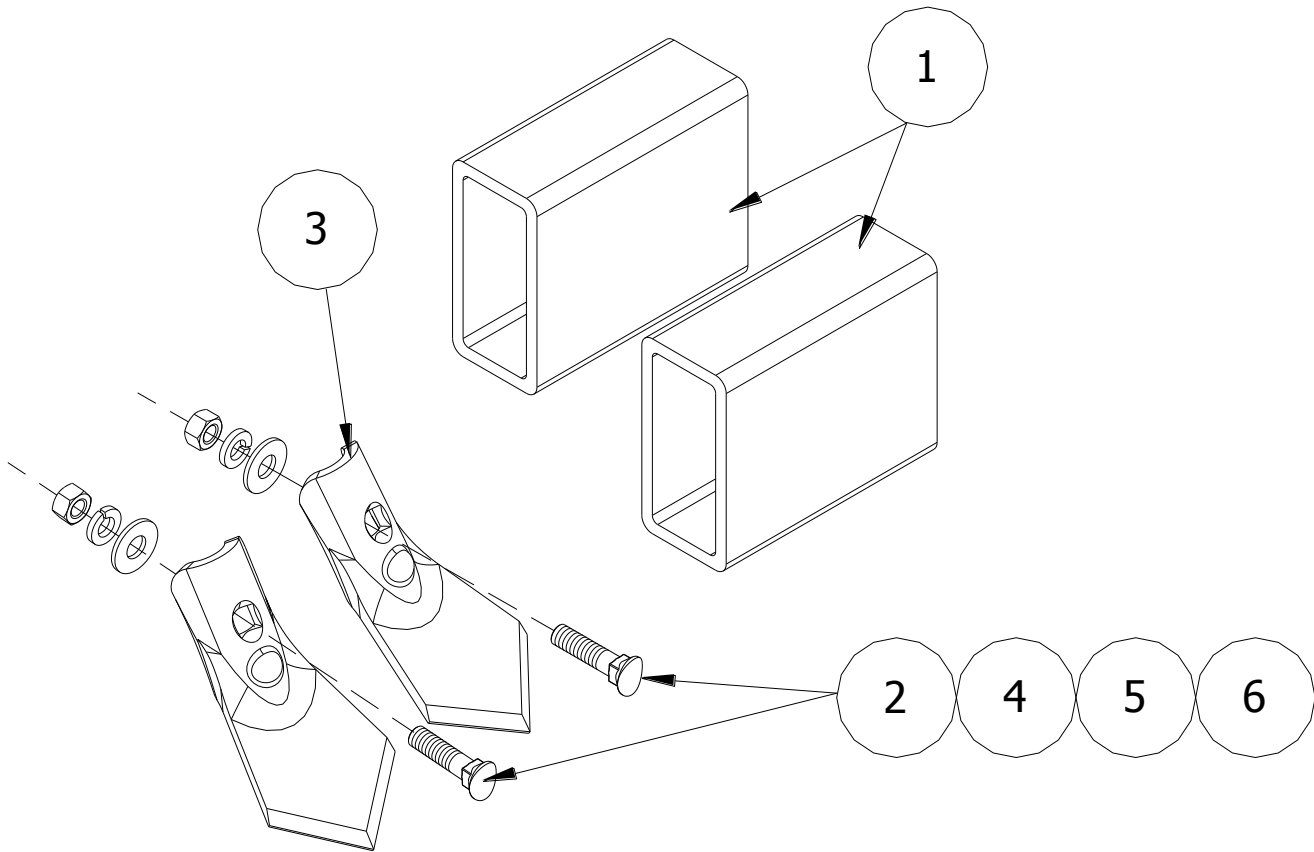
ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	21-080-057		ROW MARKER EXT WELD'T	1
2	21-080-058		F.C. ROW MARKER BRACE	1
3	21-050-001		"U"-BOLT, 5/8 X 2 11/16 X 3 5/16	1
4	21-050-016		EXT. SPRING, 1.56 X 9.5	1
5	03-050-004		3/16 PROOF CHAIN - 18 LINKS	1
6	48-091050		CAPSCREW, 5/8 X 3 1/2 G5 PLT	1
7	72-020050		LOCKNUT, 5/8	1
8	68-010300		HEX NUT, 5/8	2
9	66-010300		LOCKWASHER, 5/8	2

SINGLE PLOW POINT

(02-082-192)

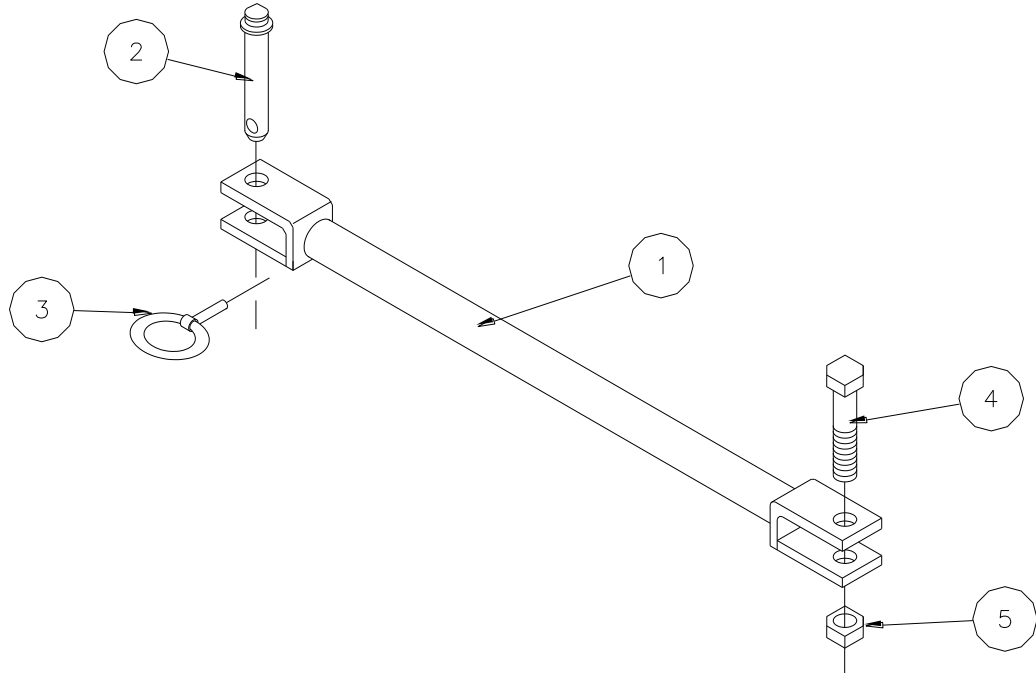
ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
10	02-057-023		SINGLE POINT PLOW	1
11	60-010100		PLOW SCREW, 3/8 X 1 1/2 G2 PLT	2
12	66-010150		LOCKWASHER, 3/8 PLT	2
13	68-010150		HEX NUT, 3/8 PLT	2

ROW MARKER SWEEP & BLOCK ASSEMBLY
(02-082-230)



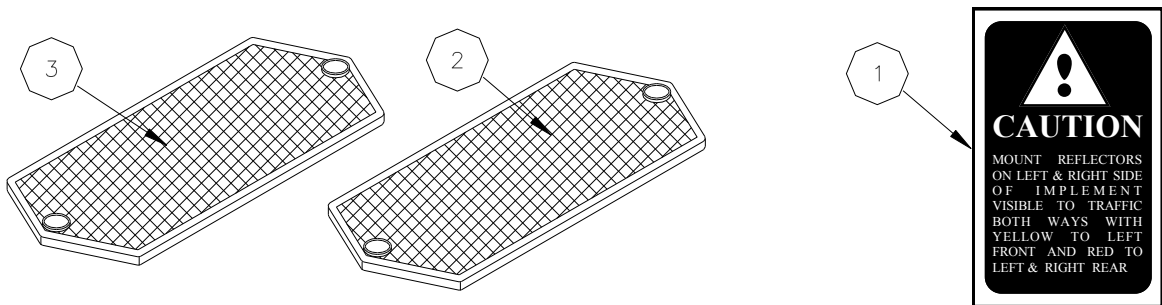
ITEM	PART NO	SERIAL NO OR YR	DESCRIPTION	QTY
1	02-024-124		ROW MARKER BLOCK	2
2	14-050-030		BOLT, 3/8 X 1 1/2 ELIPTIC HD. PLOW	2
3	04-057-045		SWEEP, 2 1/2 X 2 3/4	2
4	62-010100		FLATWASHER, 3/8 PLT	2
5	66-010150		LOCKWASHER, 3/8 PLT	2
6	68-010150		HEX NUT, 3/8 PLT	2

TRANSPORT PIPE (FOLDING MACHINES)
(07-082-005)



ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY
1	07-080-007		PIN, TRANSPORT	2
2	02-050-140		PIN, CYLINDER	2
3	02-050-062		SNAP PIN, 1/4 X 2 1/8	2
4	48-091400		CAPSCREW, 3/4 X 3 G5 PLT	2
5	72-030050		LOCKNUT, 3/4 STOVER THIN COLLAR	2

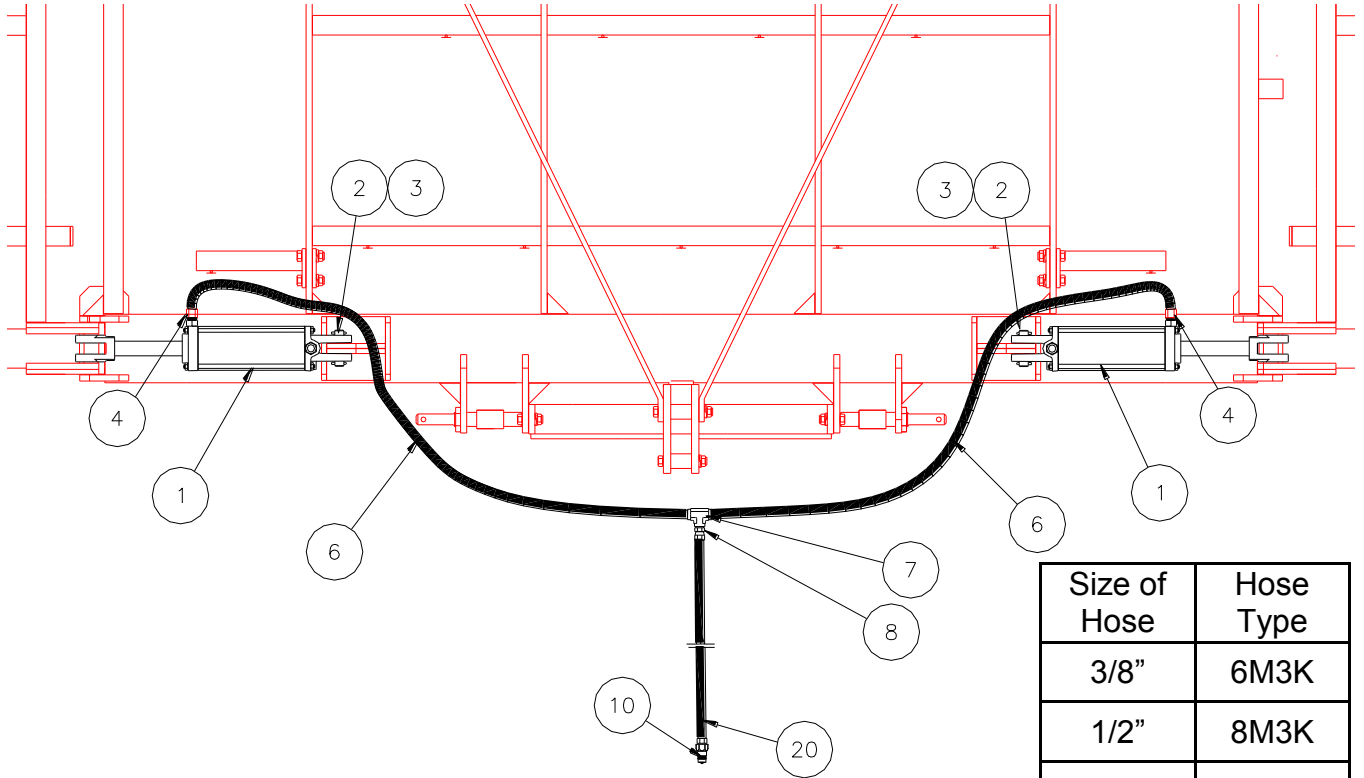
REFLECTOR BUNDLE



ITEM	PART NO.	SERIAL NO OR YR	DESCRIPTION	QTY
1	03-050-071		DECAL, REFLECTOR CAUTION	1
2	03-050-069		REFLECTOR, AMBER	1
3	03-050-070		REFLECTOR, RED	2

HYDRAULIC LAYOUTS AND CYLINDER BREAKDOWNS

LIFT-TYPE 90° FOLDING FIELD CULTIVATORS
(FOR 236",260",276" & 316")



Size of Hose	Hose Type
3/8"	6M3K
1/2"	8M3K
3/4"	12M3K
1 1/4"	20M3K

4 X 8 WING CYLINDER
(21-082-027) (Two Per Machine)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
1	21-061-087	(-2007)	CYLINDER, 4 X 8 HYDRAULIC	(1)
	21-061-110	(2008-)	CYLINDER, 4 X 8 HYDRAULIC	1
2	21-026-007		PIN, 1" CLEVIS	1
3	03-050-026		PIN, 1/4 X 2 ROLL	2
4	21-061-028		ADAPTER, 8MB-8FP	1
5	33-050-154		HYDRAULIC OIL	.4200

WING HYDRAULIC HOSES
(21-082-034)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
6	21-059-001		HOSE, 6M3K-8MP-8MPX-65"	2
7	07-050-001		TEE, 1/2" GALV	1
8	21-059-002		RESTRICTOR, 8MP-8FP-.062	1
9	21-050-010		PLUG, 1/2" PLASTIC	1
10	47-059-002		QUICK COUPLER, 1/2"	2

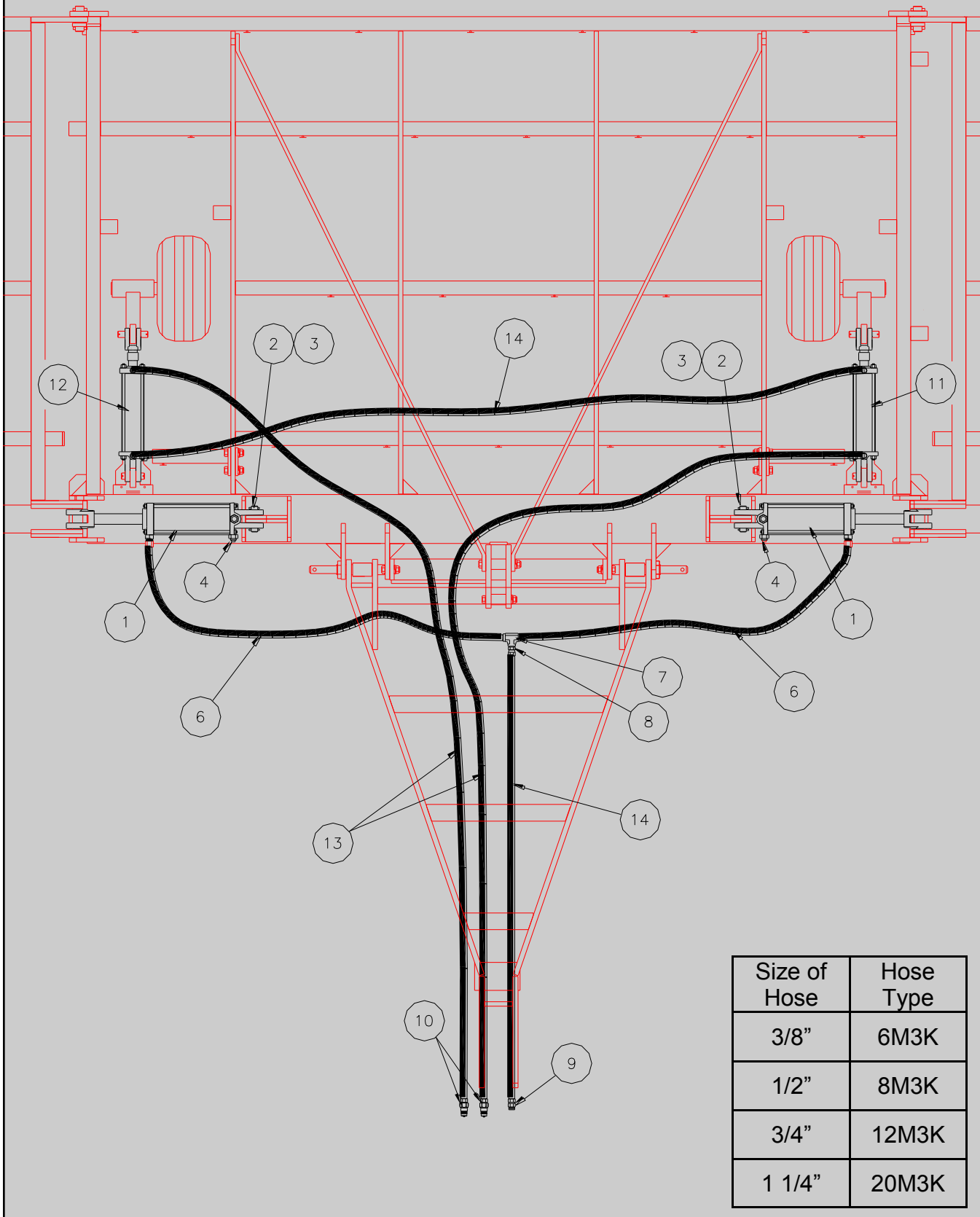
3/8 X 48' HYDRAULIC HOSE
(21-082-035)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
11	09-059-002		HOSE, 6M3K-8MP-8MPX-48"	1

PULL-TYPE 90° FOLDING FIELD CULTIVATORS

(FOR 236", 260", 276" & 316")

(FOR MACHINES PRIOR TO 2009)



4 X 8 WING CYLINDER
(21-082-027) (Two Per Machine)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
1	21-061-087	(-2007)	CYLINDER, 4 X 8 HYDRAULIC W/BRE	(1)
	21-061-110	(2008-)	CYLINDER, 4 X 8 HYDRAULIC	1
2	21-026-007		PIN, 1" CLEVIS	1
3	03-050-026		PIN, 1/4 X 2 ROLL	2
4	21-061-028		ADAPTER, 8MB-8FP	1
5	33-050-154		HYDRAULIC OIL	.4200

WING HYDRAULIC HOSES
(21-082-034)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
6	21-059-001		HOSE, 6M3K-8MP-8MPX-65"	2
7	07-050-001		TEE, 1/2" GALV	1
8	21-059-002		RESTRICTOR, 8MP-8FP-.062	1
9	21-050-010		PLUG, 1/2" PLASTIC	1
10	47-059-002		QUICK COUPLER, 1/2"	2

3 1/4 X 8 HYDRAULIC CYLINDER
(21-082-030)

ITEM	PART NO	DESCRIPTION	QTY
11	21-061-002	CYLINDER, 3 1/4 X 8	1

3 X 8 REPHASE CYLINDER
(21-082-031)

ITEM	PART NO	DESCRIPTION	QTY
12	21-061-003	CYLINDER, 3 X 8 REPHASE	1

3/8" X 190" HYD HOSE BUNDLE
(21-082-038)

ITEM	PART NO	DESCRIPTION	QTY
13	08-059-038	HOSE, 6M3K-8MP-8MPX-190"	2

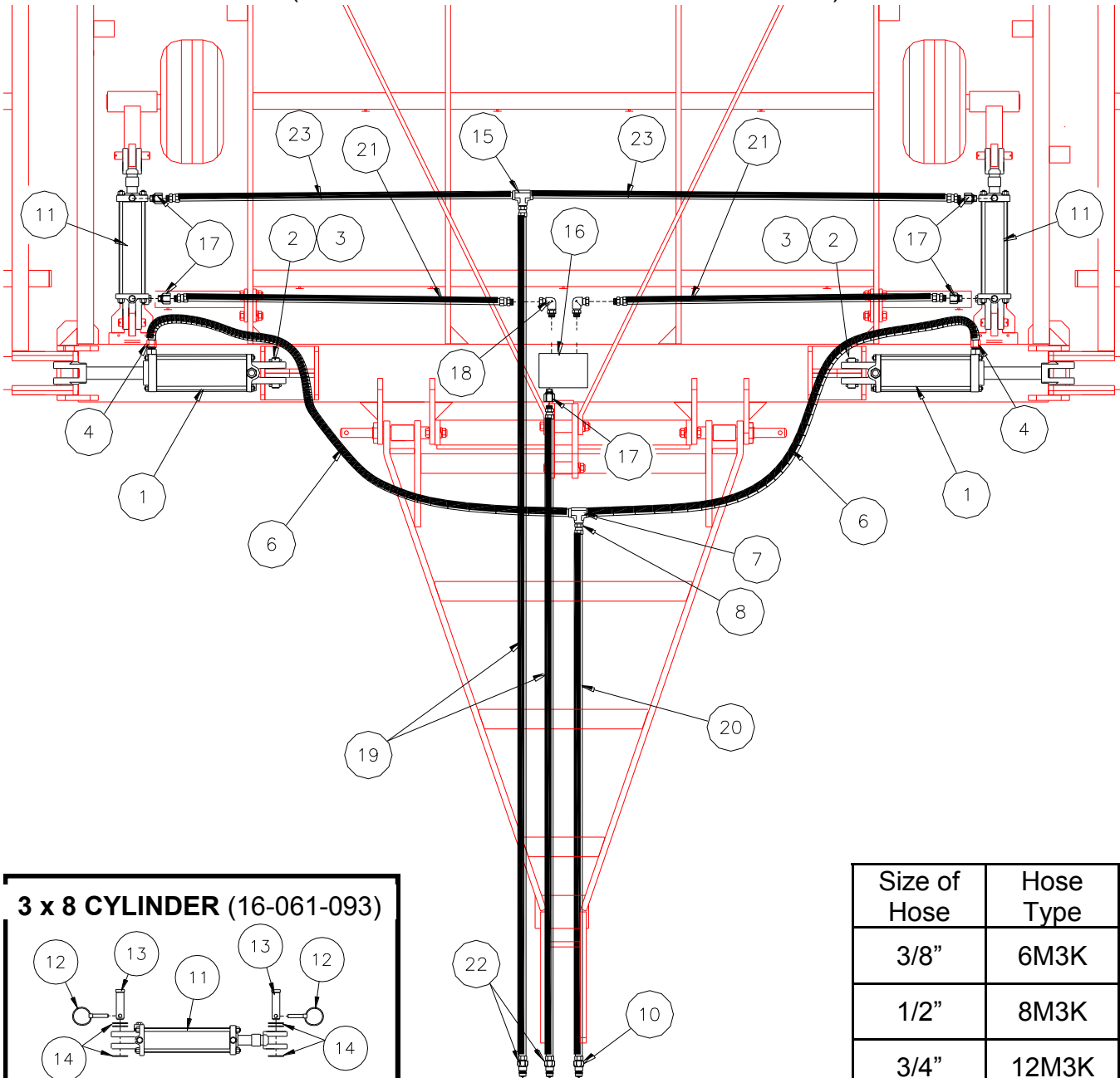
120" HYD HOSE BUNDLE
(21-082-036)

ITEM	PART NO	DESCRIPTION	QTY
14	03-059-002	HOSE, 6M3K-8MP-8MPX-120	2

PULL-TYPE 90° FOLDING FIELD CULTIVATORS

(FOR 236",260",276" & 316")

(FOR MACHINES FROM 2009 TO PRESENT)



Size of Hose	Hose Type
3/8"	6M3K
1/2"	8M3K
3/4"	12M3K
1 1/4"	20M3K

4 X 8 WING CYLINDER

(21-082-027) (Two Per Machine)

ITEM	PART NO.	SERIAL NO OR YR.	DESCRIPTION	QTY.
1	21-061-110	(2008-2013)	CYLINDER, 4 X 8 HYDRAULIC (Energy)	(1)
	21-061-114	(2014-)	CYLINDER, 4 X 8 HYDRAULIC (Bailey)	1
2	21-026-007		PIN, 1" CLEVIS	1
3	03-050-026		PIN, 1/4 X 2 ROLL	2
4	21-061-028		ADAPTER, 8MB-8FP	1
5	33-050-154		HYDRAULIC OIL	.4200

WING HYDRAULIC HOSES

(21-082-034)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
6	21-059-001		HOSE, 6M3K-8MP-8MPX-65"	2
7	07-050-001		TEE, 1/2" GALV	1
8	21-059-002		RESTRICTOR, 8MP-8FP-.062	1
10	47-059-002		QUICK COUPLER, 1/2"	1

FLOW DIVIDER W/FITTINGS & CYLINDER

(21-082-131)

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY
11	16-061-093		CYLINDER, 3 X 8 HYDRAULIC	1
12	02-050-002		PIN, 7/16 X 1 3/4 KLIK	2
13	11-050-030		PIN, 1 X 3 1/2 CLEVIS	2
14	62-020050		FLATWASHER, 1" SAE	6
15	07-050-001		TEE, 1/2 NPTF HYD	1
16	48-061-027		FLOW DIVIDER	1
17	05-050-013	(-2010)	ADAPTER, 8MP-8FPX-90°	(2)
	21-061-028	(2011-)	ADAPTER, 8MB-8FP	5
18	42-059-022	(2011-)	ADAPTER, 8MB-8FPX-90°	2

120" HYD HOSE BUNDLE

(03-082-058)

ITEM	PART NO	DESCRIPTION	QTY
19	03-059-002	HOSE, 6M3K-8MP-8MPX-120	2

120" HYD HOSE BUNDLE

(21-082-036)

ITEM	PART NO	DESCRIPTION	QTY
20	03-059-002	HOSE, 6M3K-8MP-8MPX-120	1

80" HYD HOSE BUNDLE

(02-082-137)

ITEM	PART NO	DESCRIPTION	QTY
21	07-059-004	HOSE, 6M3K-8MP-8MPX-80	2
22	47-059-002	QUICK COUPLER, 1/2"	2

100" HYD HOSE BUNDLE

(02-082-174)

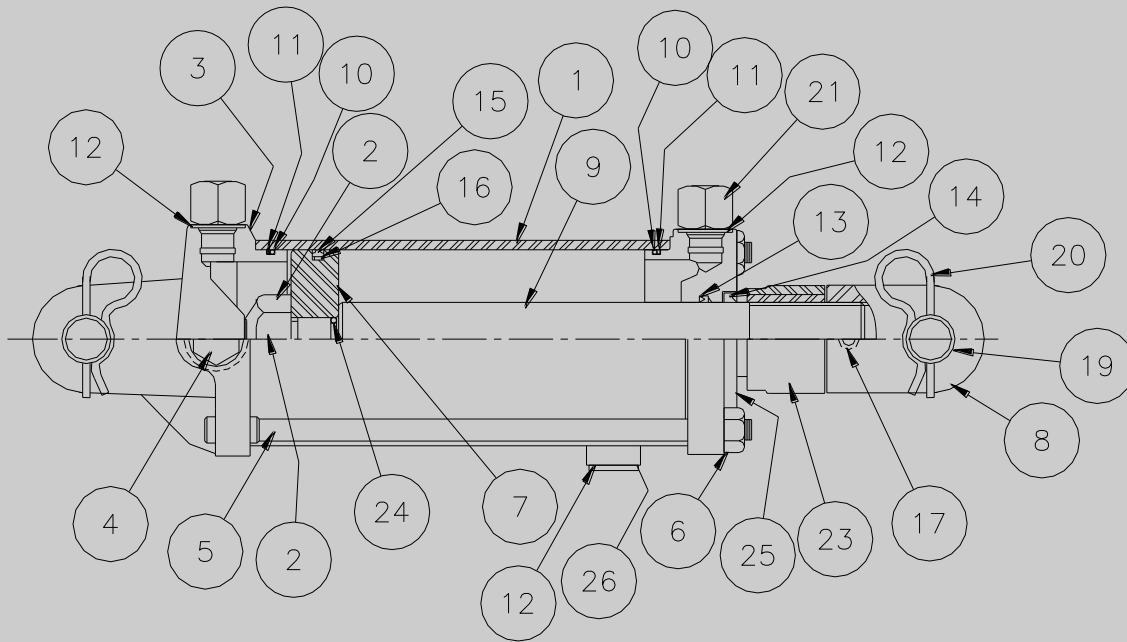
ITEM	PART NO	DESCRIPTION	QTY
23	07-059-003	HOSE, 6M3K-8MP-8MPX-100	2

REPHASING CYLINDER (LIFT CYLINDER PULL-TYPE)

(FOR MACHINES PRIOR TO 2009)

3 1/4 X 8 CYLINDER
(21-061-002)

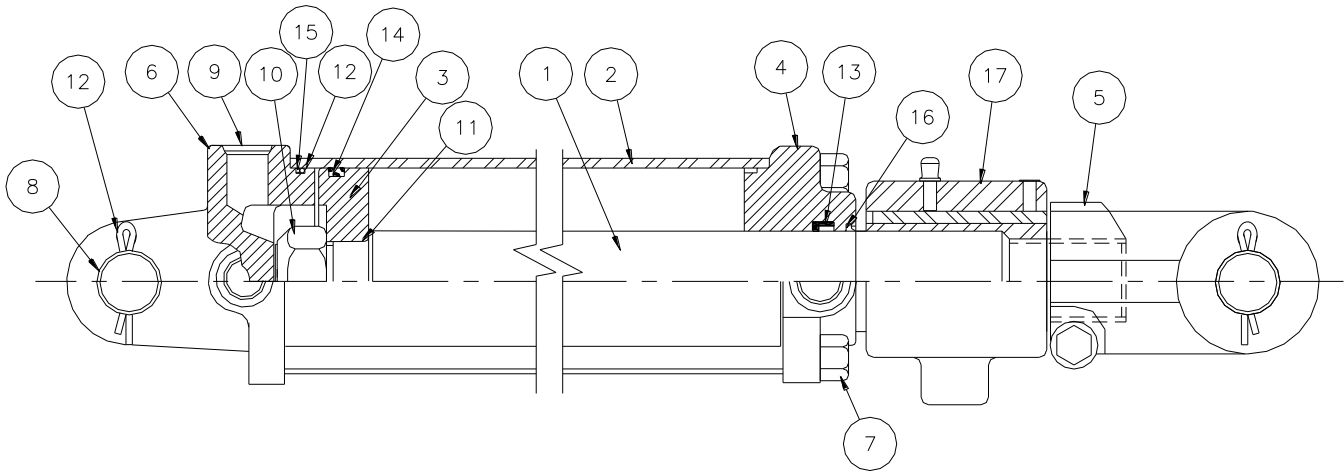
3 X 8 CYLINDER
(21-061-003)



ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.	
				-002	-003
1	21-061-031		CASE ASSEMBLY (3 1/4 X 8)	1	-
	21-061-051		CASE ASSEMBLY (3 X 8)	-	1
2	21-061-005		LOCKNUT	1	1
3	21-061-032		BOTTOM (3 1/4 X 8)	1	-
	21-061-047		BOTTOM (3 X 8)	-	1
4	21-061-015		PLUG ASSEMBLY	1	1
5	21-061-033		TIE ROD, 1/2 (3 1/4 X 8)	4	-
	21-061-054		TIE ROD, 7/16 (3 X 8)	-	4
6	68-010250		HEX NUT, 1/2	4	-
	68-010200		HEX NUT, 7/16	-	4
7	21-061-034		PISTON (3 1/4 X 8)	1	-
	21-061-057		PISTON (3 X 8)	-	1
8	21-061-035		CLEVIS MACHINED (1 1/4 DIA)	1	1
9	21-061-036		SHAFT (1 1/4 DIA)	1	1
10 *	21-061-037		O-RING (3 1/4 X 8)	2	-
§	21-061-052		O-RING (3 X 8)	-	2

ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.	
				-002	-003
11 *	21-061-038		BACK-UP (3 1/4 X 8)	2	-
§	21-061-055		BACK-UP (3 X 8)	-	2
12* §	21-061-025		O-RING	4	3
13* §	21-061-039		U-CUP (1 1/4 DIA)	1	1
14* §	21-061-040		WIPER (1 1/4 DIA)	1	1
15 *	21-061-041		PISTON SEAL (3 1/4 X 8)	1	-
§	21-061-048		PISTON SEAL (3 X 8)	-	1
16 *	21-061-042		O-RING (3 1/4 X 8)	1	-
§	21-061-049		O-RING (3 X 8)	-	1
17	21-061-013		NYLON PLUG	1	1
18	21-061-012		SETSCREW	1	1
19	21-061-016		CLEVIS PIN	1	1
20	21-061-017		COTTER PIN	2	2
21	21-061-028		ADAPTER ASSEMBLY	2	2
22	21-061-018		DECAL	1	2
23	21-081-043		STOP COLLAR (1 1/4 DIA)	1	-
24* §	21-061-027		O-RING	1	1
25	21-061-044		HEAD (3 1/4 X 8)	1	-
	21-061-053		HEAD (3 X 8)	-	1
26	21-061-046		PLUG ASSEMBLY (REPHASE)	1	1
* These items make up 3 1/4 x 8 Seal Kit (21-061-045) used with Cylinder (21-061-002) § These items make up 3 x 8 Seal Kit (02-061-041) used with Cylinder (21-061-003)					

3 X 8 CYLINDER (LIFT CYLINDER PULL-TYPE)
 (FOR MACHINES 2009 TO PRESENT) (Prince Cylinders)
 (16-061-093)

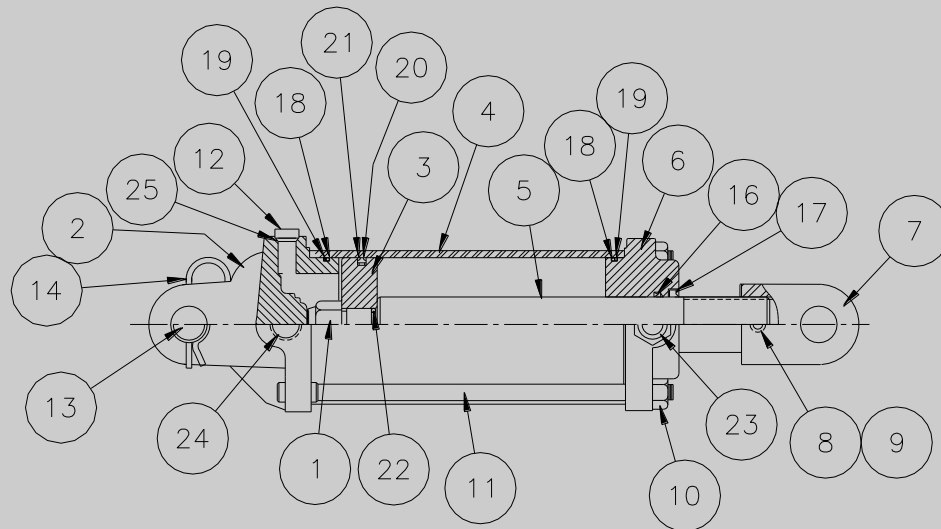


ITEM	PART NO,	SERIAL NO OR YR.	DESCRIPTION	QTY.
1	16-061-094		PISTON ROD	1
2	16-061-095		TUBE	1
3	16-061-096		PISTON	1
4	16-061-097		GLAND	1
5	16-061-098		CLEVIS ASSY	1
6	16-061-099		BUTT	1
7	16-061-100		TIE ROD ASSY	4
8	16-061-101		BUSHING	4
9	16-061-102		PORT PLUG	3
*10	16-061-103		LOCKNUT, 1-14	1
*11	16-061-104		O-RING,	1
*12	16-061-105		O-RING	2
*13	16-061-106		U-CUP	1
*14	16-061-107		CROWN SEAL	1
*15	16-061-108		BACK-UP, WASHER	2
*16	16-061-109		WIPER	1
17	16-061-110		STROKE CONTROL	1

* THESE PARTS MAKE UP SEAL KIT (16-061-111)

4 X 8 TIE BOLT HYDRAULIC CYLINDER (FOR WINGS)

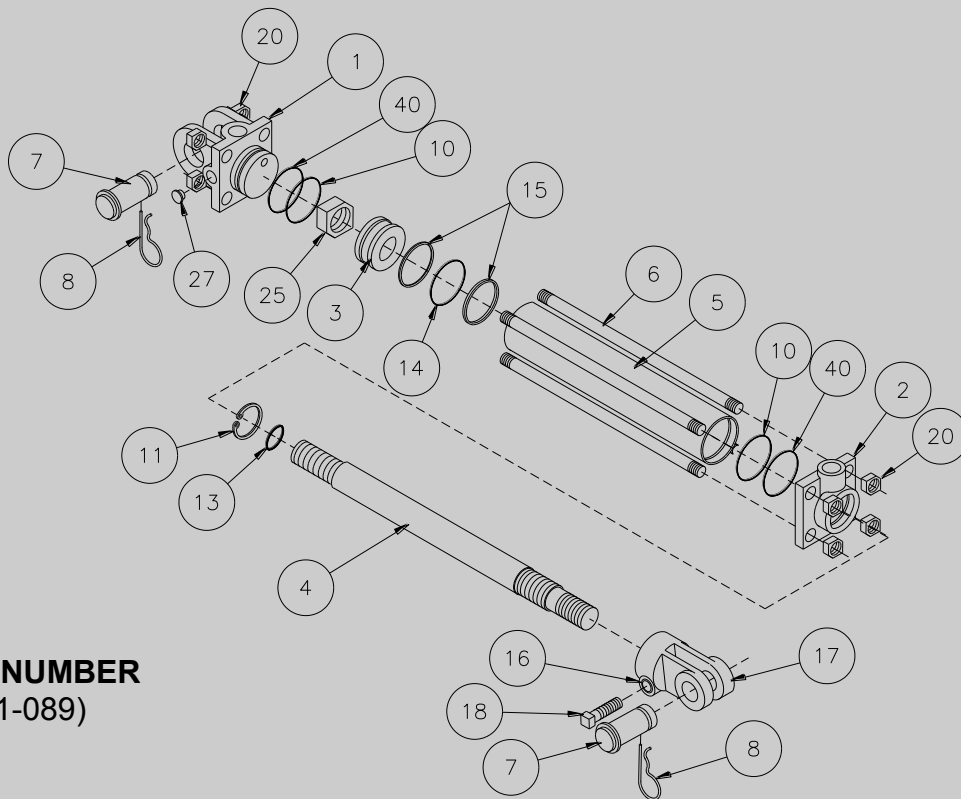
(21-061-001) (-2001) (Iowa Industries Cylinder)



ITEM	PART NO	DESCRIPTION	QTY
1	21-061-005	LOCKNUT	1
2	21-061-006	BOTTOM MACHINE (4 X 8)	1
3	21-061-007	PISTON (4 X 8)	1
4	21-061-008	CASE (4 X 8)	1
5	21-061-009	SHAFT (4 X 8)	1
6	21-061-010	HEAD MACHINE (4 X 8)	1
7	21-061-011	CLEVIS MACHINE (4 X 8)	1
8	21-061-012	SETSCREW	1
9	21-061-013	NYLON PLUG	1
10	68-010300	HEX NUT, 5/8	4
11	21-061-014	TIE ROD 5/8	4
12	21-061-015	PLUG ASSEMBLY	1
13	21-061-016	CLEVIS PIN	1
14	21-061-017	COTTER PIN	2
15	21-061-018	DECAL	1
*16	21-061-019	U-CUP (1 1/2 DIA)	1
*17	21-061-020	WIPER (1 1/2 DIA)	1
*18	21-061-021	O-RING	2
*19	21-061-022	BACK-UP	2
*20	21-061-023	PISTON SEAL	1
*21	21-061-0024	O-RING	1
*22	21-061-027	O-RING	1
23	21-061-028	ADAPTOR ASSEMBLY	1
24	21-061-056	BREATHER	1
25	21-061-025	O-RING	3

4 X 8 TIE BOLT HYDRAULIC CYLINDER (FOR WINGS)

(21-061-087) (2002-2007) (Monach Cylinder)

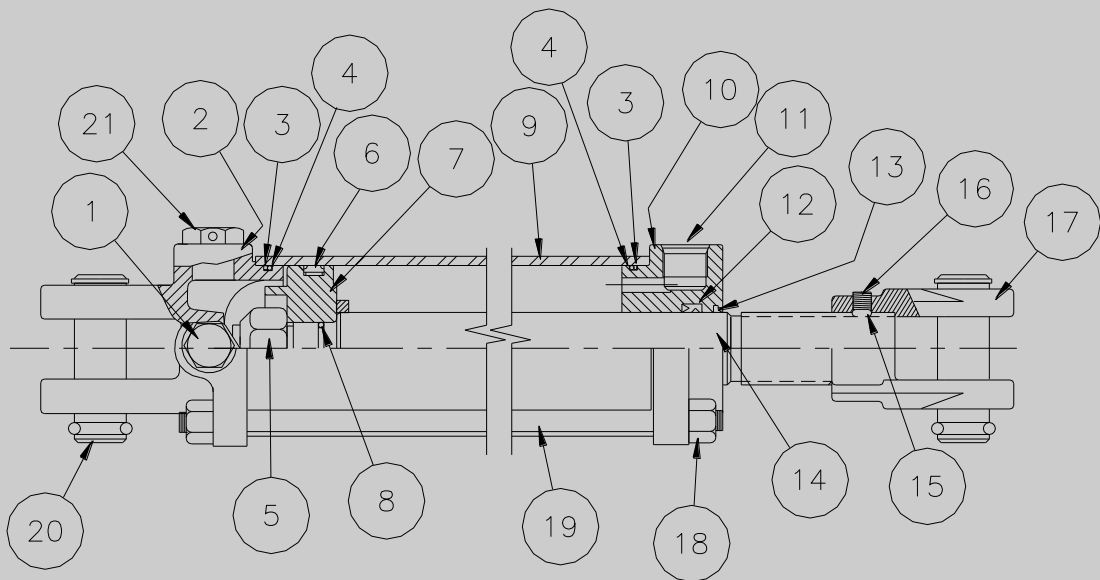


SEAL KIT NUMBER
(21-061-089)

ITEM	PART NO	DESCRIPTION	QTY
1	21-061-090	CLEVIS CAP	1
2	21-061-091	ROD CAP	1
3	21-061-092	PISTON	1
4	21-061-093	ROD	1
5	21-061-094	TUBE	1
6	21-061-095	TIE ROD	4
7	49-061-010	CLEVIS PIN	2
8	49-061-011	CLEVIS PIN CLIP	2
10	21-061-104	END CAP ORING	2
11	21-061-105	ROD WIPER SEAL	1
13	21-061-106	ROD DUST SEAL	1
14	21-061-107	PISTON SEAL	1
15	21-061-108	PISTON WEAR RING	2
16	49-061-012	NYLON THREAD PROTECTOR	1
17	21-061-099	ROD CLEVIS	1
18	49-061-014	SETSCREW	1
20	21-061-101	TIE ROD NUT	8
25	21-061-102	PISTON NUT	25
27	49-061-017	PORT PLUG	1
40	21-061-109	END CAP BACKUP WASHERS	2

4 X 8 TIE BOLT HYDRAULIC CYLINDER (FOR WINGS)

(21-061-110) (2008-2013) (Energy Cylinder)

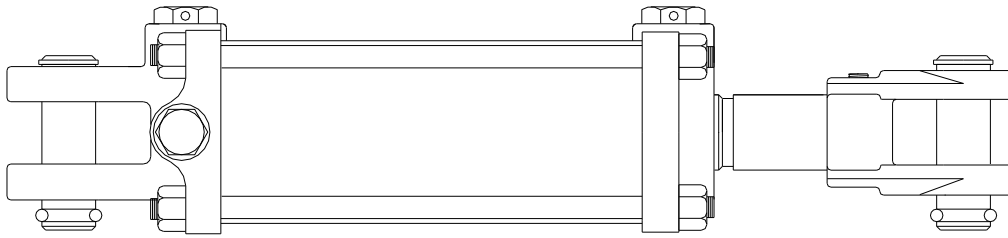


ITEM	PART NO	DESCRIPTION	QTY
1	21-061-015	PLUG ORING BOSS 3/4-16	2
2	16-061-040	BOTTOM CLEVIS, 4 DIA	1
3	21-061-068	BACK UP RING 3.75 X 4.00	2
4	21-061-065	ORING NT 3.75 X 4.00	2
5	23-061-004	LOCKNUT, 1 1/4-12	1
6	21-061-074	PSP PISTON SEAL, 4" BORE	1
7	16-061-041	PISTON, 4" DIA	1
8	16-061-042	ORING, 1.125 X 1.250	1
9	21-061-111	WALL, 4 ID X 0.187W X 10.187	1
10	23-061-036	GUIDE, 4 OD - 1.50 ID	1
11	07-061-042	PLUG ORING BOSS 3/4-16	1
12	23-061-037	UCUP LIP, 1.50 X 1.875 X 0.312	1
13	23-061-038	WIPER RING, 1.5	1
14	21-061-112	ROD, 1.50 D X 15.390	1
15	33-061-036	BALL NYLON, .250 G2	1
16	54-020010	SETSCREW 3/8-16 X .375	1
17	16-061-048	ROD CLEVIS, 1.50-12UNF	1
18	21-061-070	HEX NUT, 5/8-18 G5	8
19	21-061-113	TIE ROD, .584 D X 13.25	4
20	21-061-071	CLEVIS PIN, W/CLIP 1" DIA	1
21	21-061-056	BREATHER , 3/4-16 UNF	1

4 X 8 X 1.5 HYDRAULIC CYLINDER (BAILEY)

(21-061-114)

(Used on Machines From 2014 to Present)



Bailey's Hydraulic Cylinder (21-061-114) will replace Energy's Hydraulic Cylinder (21-061-110).

Bailey will not sale any repair parts except for a Seal Kit.

USE SEAL KIT # 21-061-216
