



Parts Manual

45F Paper Roll Clamp

Serial Numbers 682206 through 682245

Manual Number 685999

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How To Use This Manual

Introduction

This manual illustrates service replacement parts for standard production Cascade 45F Roll Clamp.

The parts manuals for attachments designed by the Application Engineering Department have an A.E.D. designation on the cover of the manual.

This standard attachment manual is not interchangeable with an A.E.D. manual since it does not reflect the special engineering of an A.E.D. attachment.

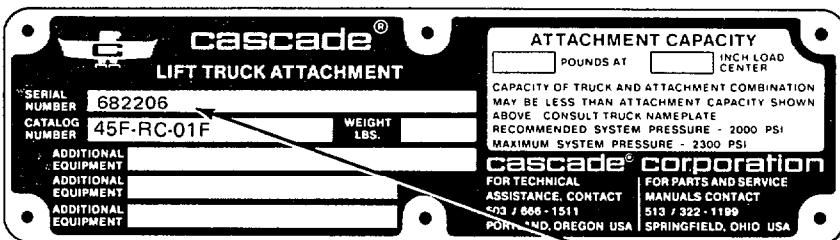
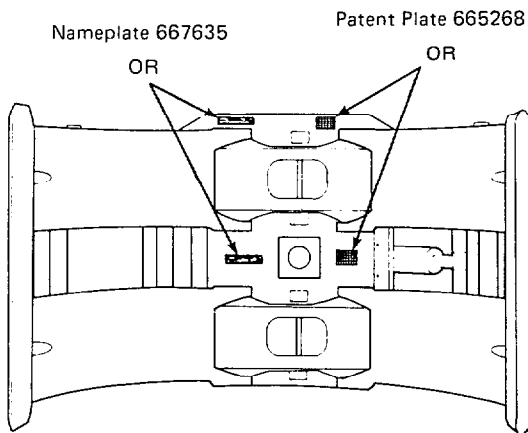
To locate a service replacement part for a standard attachment, follow these steps.

1. Locate the Nameplate

The nameplate is attached to the right front of the arm frame. If the nameplate is missing, all necessary information is stamped into the frame at the same location.

2. Note the Serial Number

Record the six-digit Serial Number. See the example.



3. Refer to Serial Number Index

Locate your Serial Number in the Serial Number Index on the following page.

IMPORTANT: DO NOT USE THIS MANUAL TO ORDER PARTS FOR AN A.E.D. ATTACHMENT. Contact Cascade Corporation to obtain the correct parts manual. You must supply the serial number and all additional equipment numbers to order the correct manual.

4. Ordering

Retail Customers - Cascade Service Replacement Parts and Service Literature are sold through authorized lift truck dealers. To order, contact the lift truck dealer of your choice.

Lift Truck Dealers Try SNAP (Sales Network Access Program). This program will allow dealers to order parts or get price and availability through your present computer. Call 513-322-1199 for information. Or to order Service Replacement Parts and Service Literature, contact:

Cascade Parts Depot
2501 Sheridan Avenue
P.O. Box 360
Springfield, Ohio 45505
Telephone: 513-322-1199
Telex: 279563
FAX: 513-325-9270

5. Parts Log

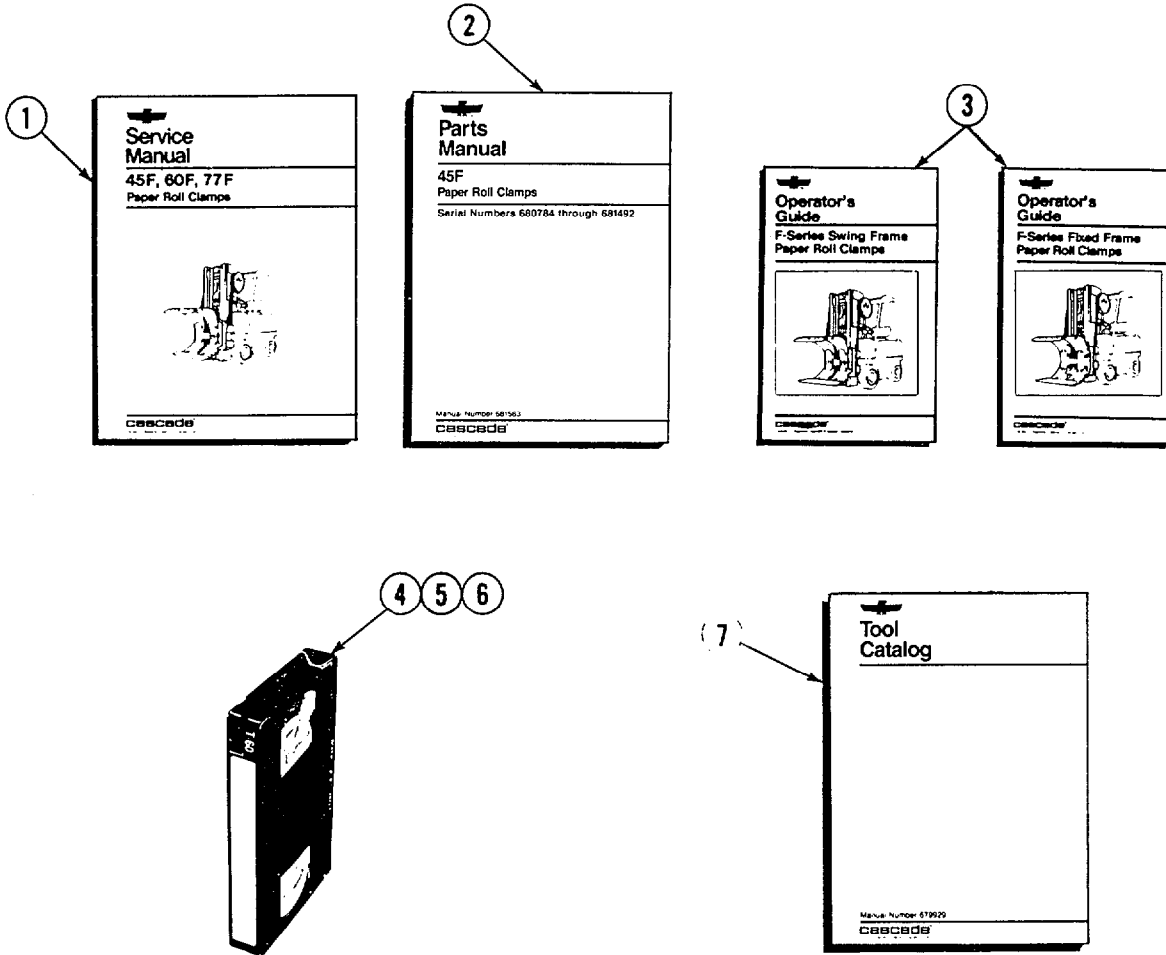
We have supplied a parts ordering log located on the last page. Use this log as a permanent record of parts ordered from this manual.

Serial Number Index

Serial Number	Maximum Handling Capacity	Frame Group Page	Common Components Page	Drive Group Page	Hosing Group Page	Cylinders Page	Arms Page	Bumper Group Page	Mounting Group Page	Optional Group Page
682206	45"	1	2	4	7	10.11	14.15	16	19	21.22.24
682207	45"	1	2	4	7	10.11	14.15	16	20	21.22.24
682208	45"	1	2	4	7	10.11	14.15	16	18	21.22.24
682209	45"	1	2	4	7	10.11	14.15	16	17	21.22.24
682210	45"	1	2	4	7	10.11	14.15	16	—	21.22.24
682211	45"	1	2	4	6	11.12	14.15	16	19	21.22.24
682212	45"	1	2	4	6	11.12	14.15	16	20	21.22.24
682213	45"	1	2	4	6	11.12	14.15	16	18	21.22.24
682214	45"	1	2	4	6	11.12	14.15	16	17	21.22.24
682215	45"	1	2	4	6	11.12	14.15	16	—	21.22.24
682216	51"	1	2	4	7	10.11	14.15	16	19	21.22.24
682217	51"	1	2	4	7	10.11	14.15	16	20	21.22.24
682218	51"	1	2	4	7	10.11	14.15	16	18	21.22.24
682219	51"	1	2	4	7	10.11	14.15	16	17	21.22.24
682220	51"	1	2	4	7	10.11	14.15	16	—	21.22.24
682221	51"	1	2	4	6	11.12	14.15	16	19	21.22.24
682222	51"	1	2	4	6	11.12	14.15	16	20	21.22.24
682223	51"	1	2	4	6	11.12	14.15	16	18	21.22.24
682224	51"	1	2	4	6	11.12	14.15	16	17	21.22.24
682225	51"	1	2	4	6	11.12	14.15	16	—	21.22.24
682226	45"	1	3	4	7	10.11	13.15	16	19	21.22.24
682227	45"	1	3	4	7	10.11	13.15	16	20	21.22.24
682228	45"	1	3	4	7	10.11	13.15	16	18	21.22.24
682229	45"	1	3	4	7	10.11	13.15	16	17	21.22.24
682230	45"	1	3	4	7	10.11	13.15	16	—	21.22.24
682231	45"	1	3	4	6	11.12	13.15	16	19	21.22.24
682232	45"	1	3	4	6	11.12	13.15	16	20	21.22.24
682233	45"	1	3	4	6	11.12	13.15	16	18	21.22.24
682234	45"	1	3	4	6	11.12	13.15	16	17	21.22.24
682235	45"	1	3	4	6	11.12	13.15	16	—	21.22.24
682236	51"	1	3	4	7	10.11	13.15	16	19	21.22.24
682237	51"	1	3	4	7	10.11	13.15	16	20	21.22.24
682238	51"	1	3	4	7	10.11	13.15	16	18	21.22.24
682239	51"	1	3	4	7	10.11	13.15	16	17	21.22.24
682240	51"	1	3	4	7	10.11	13.15	16	—	21.22.24
682241	51"	1	3	4	6	11.12	13.15	16	19	21.22.24
682242	*51"	1	3	4	6	11.12	13.15	16	20	21.22.24
682243	*51"	1	3	4	6	11.12	13.15	16	18	21.22.24
682244	*51"	1	3	4	6	11.12	13.15	16	17	21.22.24
682245	*51"	1	3	4	6	11.12	13.15	16	—	21.22.24

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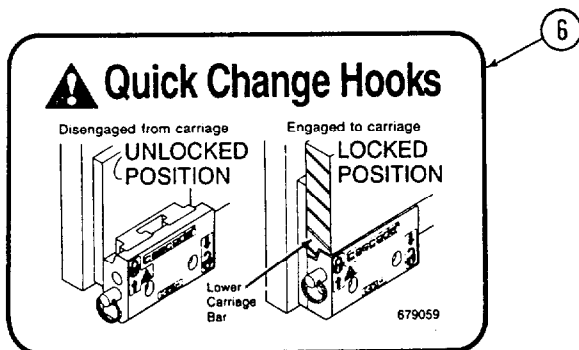
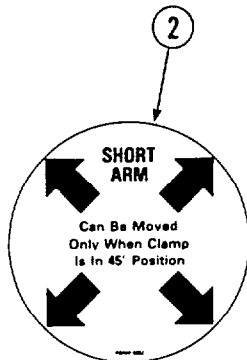
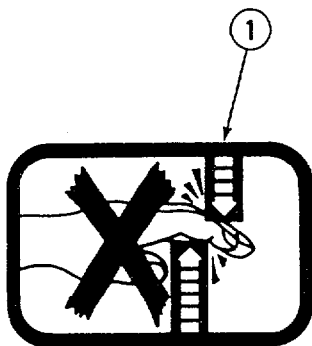
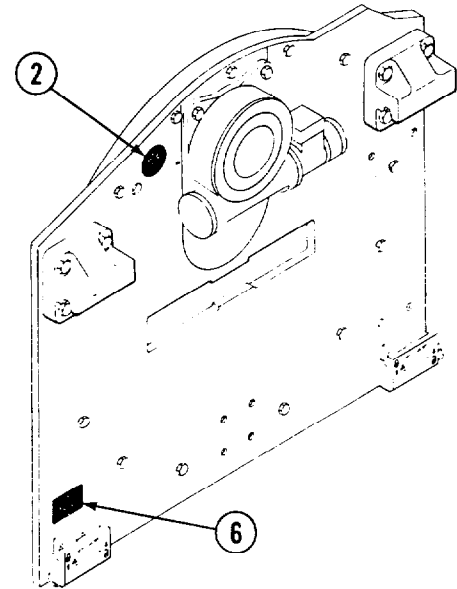
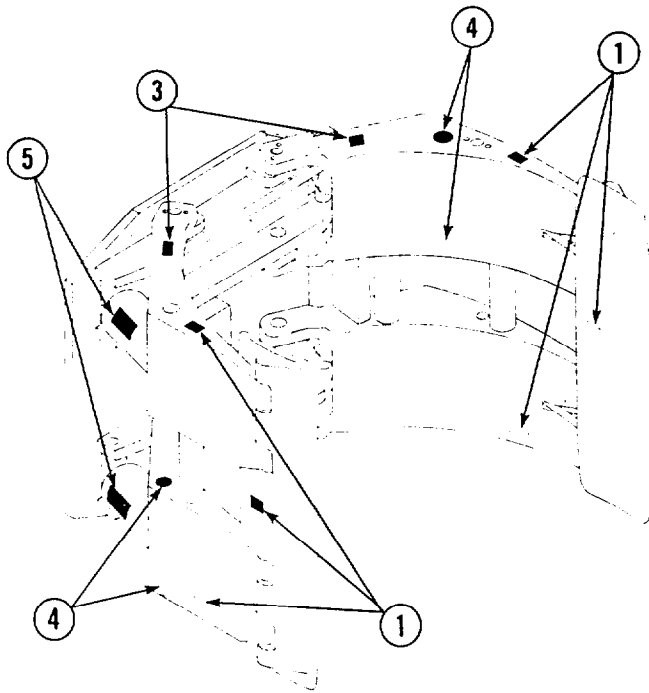
Publications



45F		
REF	PART NO.	DESCRIPTION
1	674512	Service Manual
2	685999	Parts Manual
3	674509	Operator's Guide – Fixed Frame
	676268	Operator's Guide – Swing Frame
4	677542	Driver Training Video – 3/4"
	677555	Driver Training Video – VHS
	677556	Driver Training Video – Beta
5	678362	Troubleshooting Video – 3/4"
	678363	Troubleshooting Video – VHS
	678364	Troubleshooting Video – Beta
6	680666	Servicing Cylinders – 3/4"
	680664	Servicing Cylinders – VHS
	680665	Servicing Cylinders – Beta
7	679929	Tool Catalog

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Safety Decals



45F			
REF	QTY	PART NO.	DESCRIPTION
1	6	665595	No Hand Hold Decal
2	1	660269	Short Arm Rotation Position Decal
3	4	656038	Caution Decal
4	4	679150	No Step Decal
5	4	665677	Trapped Pressure Decal
6	1	679059	Quick Change Hook Decal

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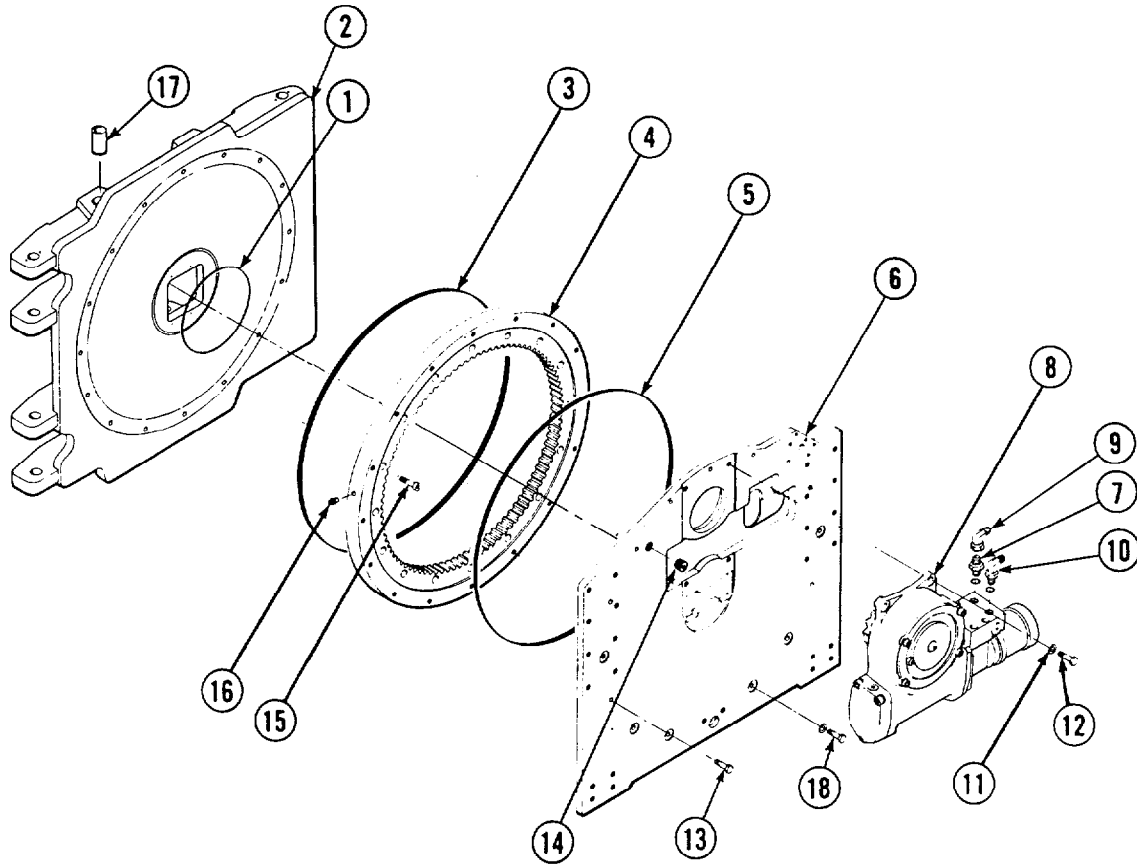
Recommended Spare Parts List

45F Paper Roll Clamps				
PART NO.	DESCRIPTION	ATTACHMENTS SERVICED		
		1-5	6-15	16-25
674843	FRAME GROUP Bushings	8	16	16
674837	COMMON COMPONENTS Shim	8	16	16
680639	Pin (Non adjustable bumper only)	1	2	2
673385	Drive Pin	4	8	8
674835	Pin	1	2	2
674832	Pin (adjustable bumper only)	1	2	2
660200	Shim	16	32	32
674608	DRIVE GROUP Worm	0	1	2
670506	Pinion	0	1	2
670581	Bearing	0	1	2
7214	Snap Ring	2	4	4
643423	O-Ring	1	2	2
675329	Drive Motor	0	1	1
675394	Drive Motor Service Kit	1	2	2
668184	Sealant	1	2	2
675638	Bearing Service Kit	1	2	2
675637	Bearing Service Kit	1	2	2
656300	Gear Box Lube	1	2	2
681585	REVOLVING CONNECTION Shaft Service Kit	1	2	2
555227	SHORT AND LONG ARM CYLINDER Cylinder Service Kit	2	4	4
557212	Check Valve	2	4	4
674701	SHORT AND LONG ARM Pin	2	4	4
674702	Contact Pad	0	1	2
669344	STOP KIT Stop Kit	1	2	2
685660	PAINT 12 oz. Aerosol Can Heritage White	1	2	2
678236	12 oz. Aerosol Can Cascade Black	1	2	2
668209	12 oz. Aerosol Can Cascade Yellow	1	2	2
685999	PUBLICATIONS Parts Manual	1	1	1
674512	Service Manual	1	1	1
674509	Operator's Guide	1	1	1
679929	Tool Catalog	1	1	1
★	VIDEOS Paper Roll Clamp Troubleshooting	1	1	1
★	Servicing Cascade Cylinder	1	1	1
★	Driver Training	1	1	1

★ See page ii for part number.

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Frame Group

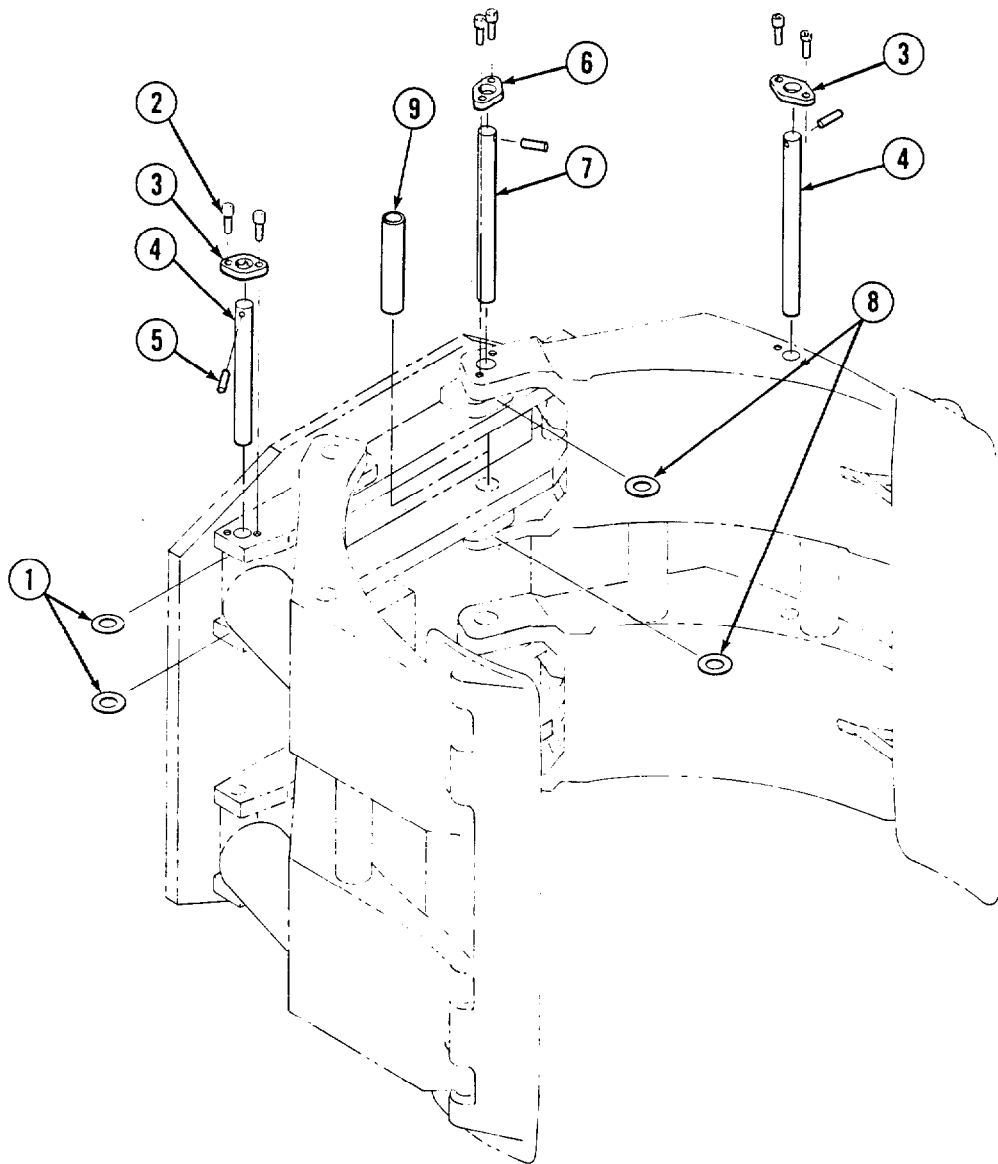


45F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		682189	Frame Group – 45" Roll ♦	9	1	605761	Fitting, 8-8
		682192	Frame Group – 51" Roll ♦	10	1	601250	Fitting, 8-8
1	1	670931	Seal	11	4	6290	Lockwasher
2	1	682433	Faceplate – 45" Roll ♦	12	4	661742	Capscrew, 1/2 NC x 1.25 GR5
	1	682434	Faceplate – 51" Roll ♦	13	9	678395	Capscrew, 1/2 NC x 1.75 GR5
3	1	670513	Seal	14	1	6605	Plug
*■4	1	672828	Bearing Assembly	*15	16	669322	Capscrew, 1/2 NC x 1.5
5	1	670514	Seal	16	1	7401	Grease Fitting
6	1	680679	Baseplate	17	8	674843	Bushing
7	1	601377	Fitting, 8-8	18	7	670682	Capscrew
●8	1	675628	Drive Group				

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- Includes items 3 and 5.
- See page 4 for replacement parts breakdown.
- * Included in Bearing Service Kit 672481.
- ♦ Maximum clamp handling capacity.

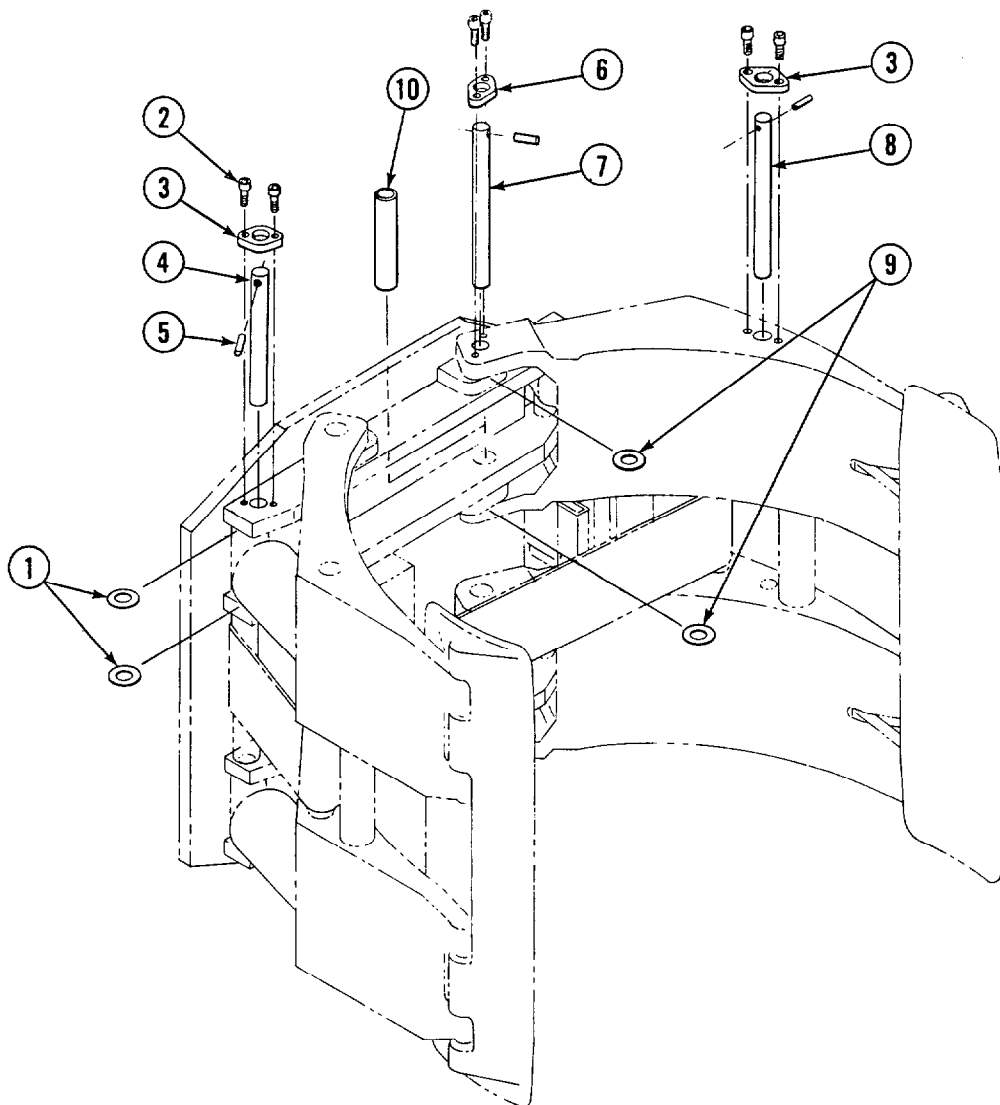
Common Components Group



45F			
REF	QTY	PART NO.	DESCRIPTION
		680634	Components Group
1	8	674837	Shim
2	24	4466	Capscrew, 3/8 NC x .50
3	8	674827	Retainer
4	8	680639	Pin
5	12	673385	Drive Pin
6	4	674828	Retainer
7	4	674835	Pin
8	16	660200	Shim
9	4	681669	Spacer

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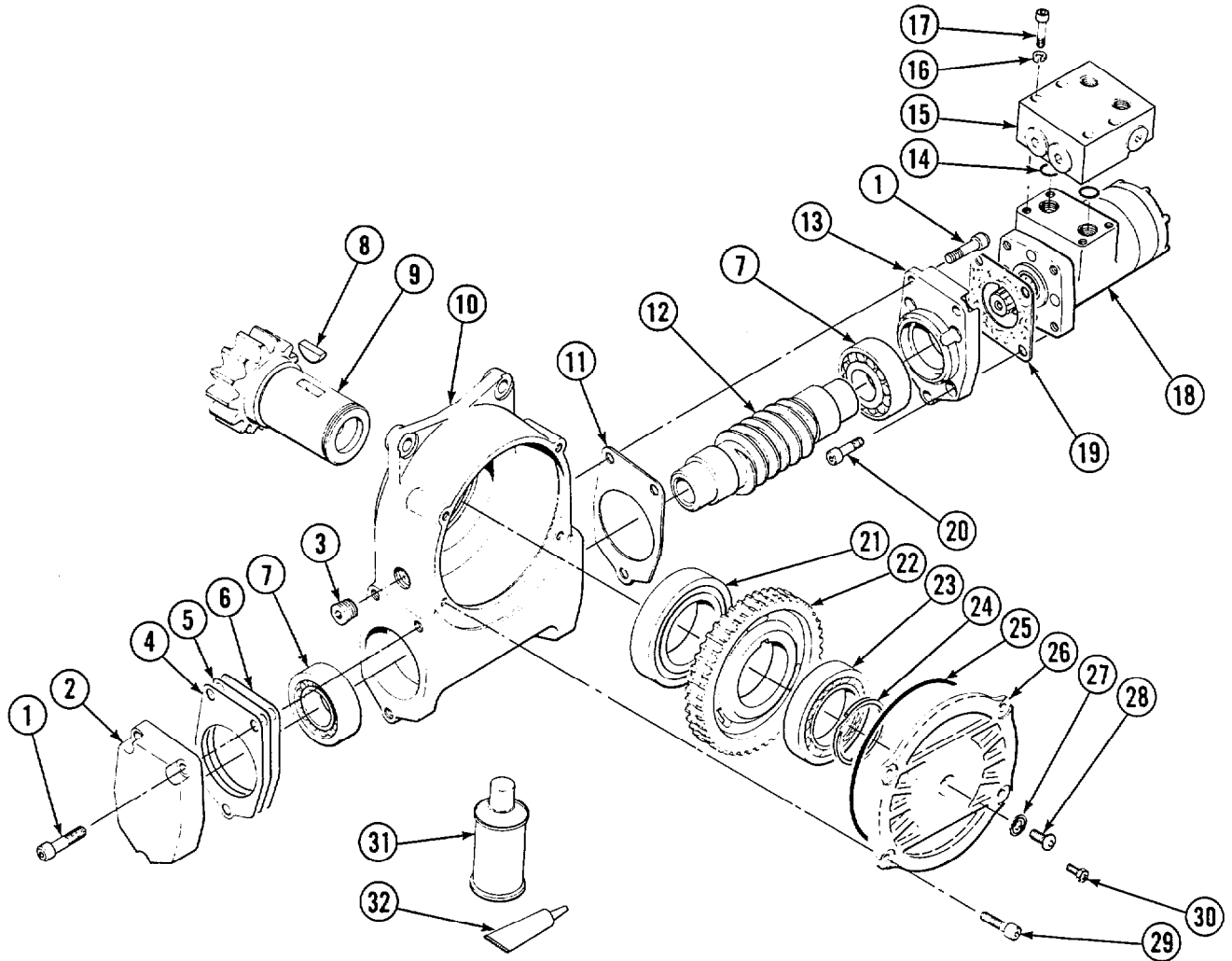
Common Components Group Adjustable Bumper



45F			
REF	QTY	PART NO.	DESCRIPTION
		674866	Components Group
1	8	674837	Shim
2	24	4466	Capscrew, 3/8 NC x .50
3	8	674827	Retainer
4	4	674831	Pin
5	12	673385	Drive Pin
6	4	674828	Retainer
7	4	674835	Pin
8	4	674832	Pin
9	16	660200	Shim
10	4	681669	Spacer

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Drive Group



45F							
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
		675628	Drive Group with Motor	■18	1	675329	Drive Motor
		★675631	Drive Group without Motor	19	1	670575	Gasket
1	6	607071	Capscrew, 7/16 NC x 1.0 GR8	20	4	4468	Capscrew, 3/8 NC x .75 GR8
2	1	676855	Cover	21	1	670580	Bearing
3	1	6609	Plug	22	1	675609	Worm Gear
4	●	670574	Shim - .010" (Brown)	23	1	670581	Bearing
5	●	671757	Shim - .015" (Pink)	24	1	7214	Snap Ring
6	●	671758	Shim - .020" (Yellow)	25	1	643423	O-Ring
7	2	670579	Bearing	26	1	670567	Cover
8	1	670582	Key	27	1	603680	Seal
9	1	670506	Pinion	28	1	4874	Capscrew, 3/8 NC x .50 GR8
10	1	670565	Housing	29	4	671535	Capscrew
11	1	670574	Shim - .010" (Brown)	30	1	644010	Relief Fitting
12	1	675608	Worm	31	1	656300	Gear Box Lube - 48 oz.
13	1	670570	Adapter	32	1	668184	Sealant
14	2	2705	Seal			670578	Shim Service Kit, (Items 4,5,6 and 32)
■15	1	670549	Check Valve			675637	Service Kit, (Items 21 & 32)
16	4	6444	Lockwasher, 5/16 ID			675638	Service Kit, (Items 4-7 & 32)
17	4	607059	Capscrew, 5/16 NC x 1.75 GR8			675343	Drive Motor ServiceKit(Items4,14,18,19,32)

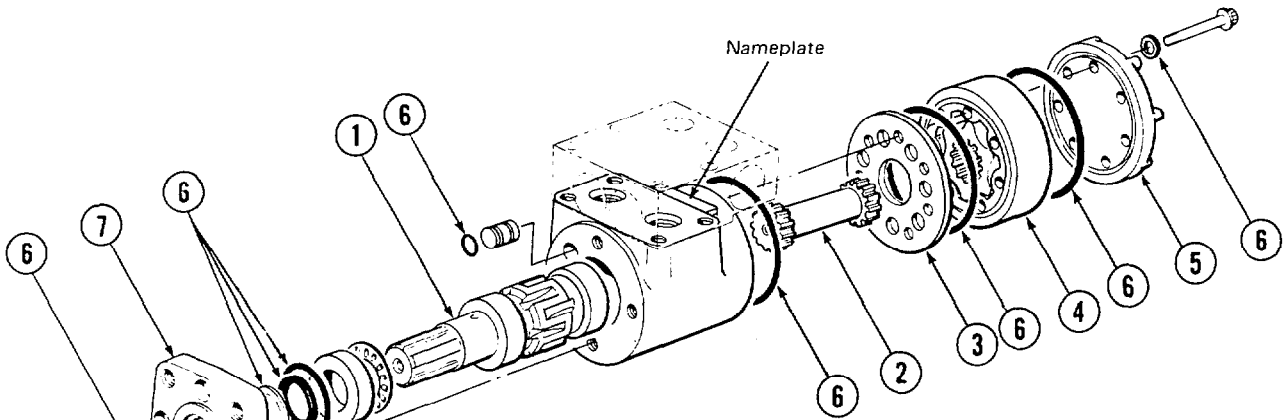
● Quantity as required.

■ See page 5 for replacement parts breakdown.

★ Includes all items except 15, 17 and 18.

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Drive Motor



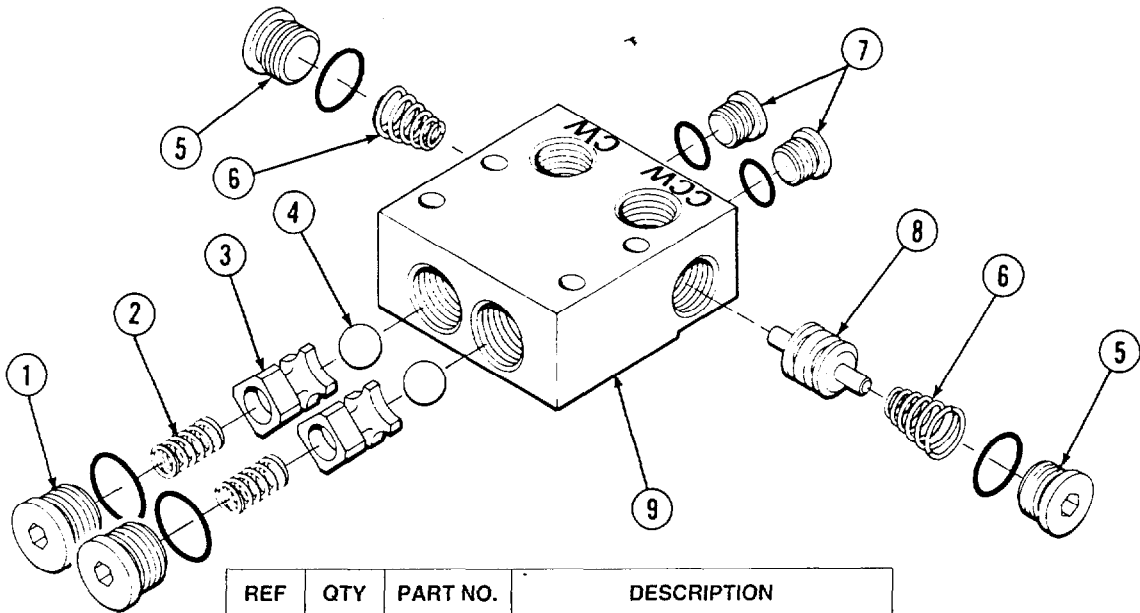
REF	QTY	PART NO.	DESCRIPTION
		675329	Drive Motor
1	1	675478	Shaft
2	1	675477	Drive
3	1	675479	Spacer Plate
*4	1	675480	Geroter Set (101-1768-007)
	1	685075	Geroter Set (101-1768-009)
5	1	675482	End Cap
6	1	675394	Service Kit (Fits both models)
*7	1	685089	Flange (101-1768-007)
	1	685090	Flange (101-1768-009)

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Cascade provides service replacement parts for the listed parts only. Due to cost, if other parts need replacement, the complete drive motor should be replaced.

*See Nameplate under valve for correct part number of Geroter Set and Flange.

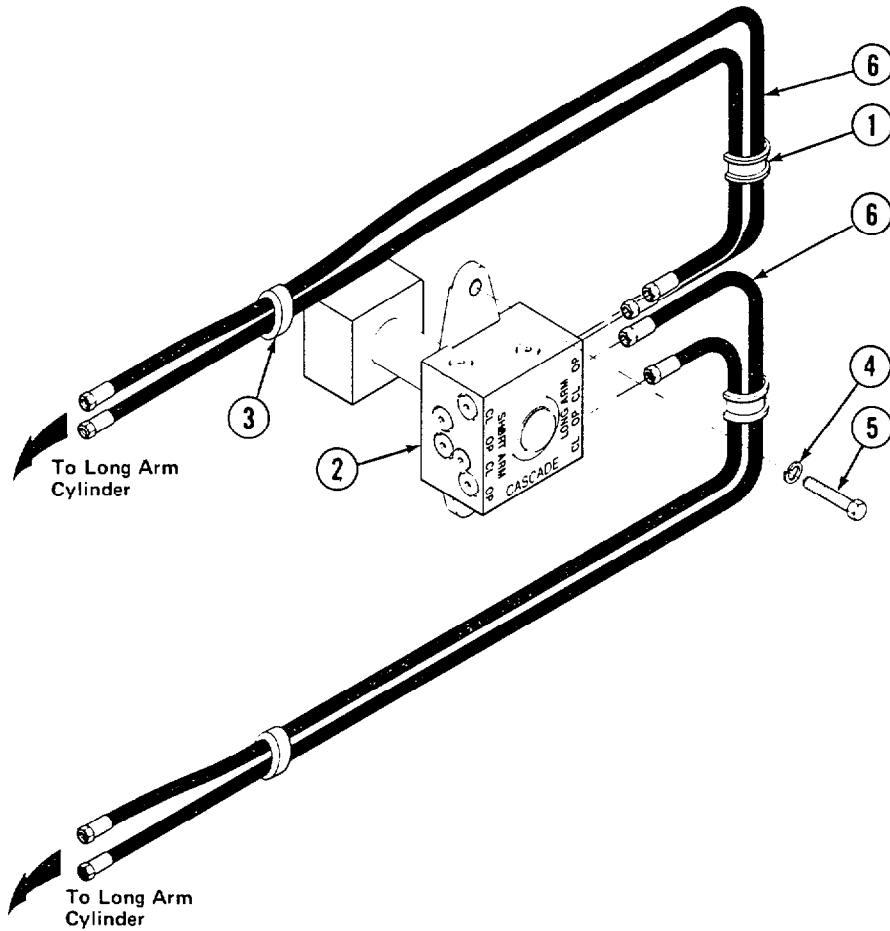
Check Valve



REF	QTY	PART NO.	DESCRIPTION
		670549	Check Valve Assembly
1	2	609453	Plug
2	2	670552	Spring
3	2	670551	Guide
4	2	7020	Ball
5	2	602580	Plug
6	2	673989	Spring
7	2	604510	Plug
8	1	670553	Spool
9	1	670550	Body

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Hosing Group Fixed Short Arm

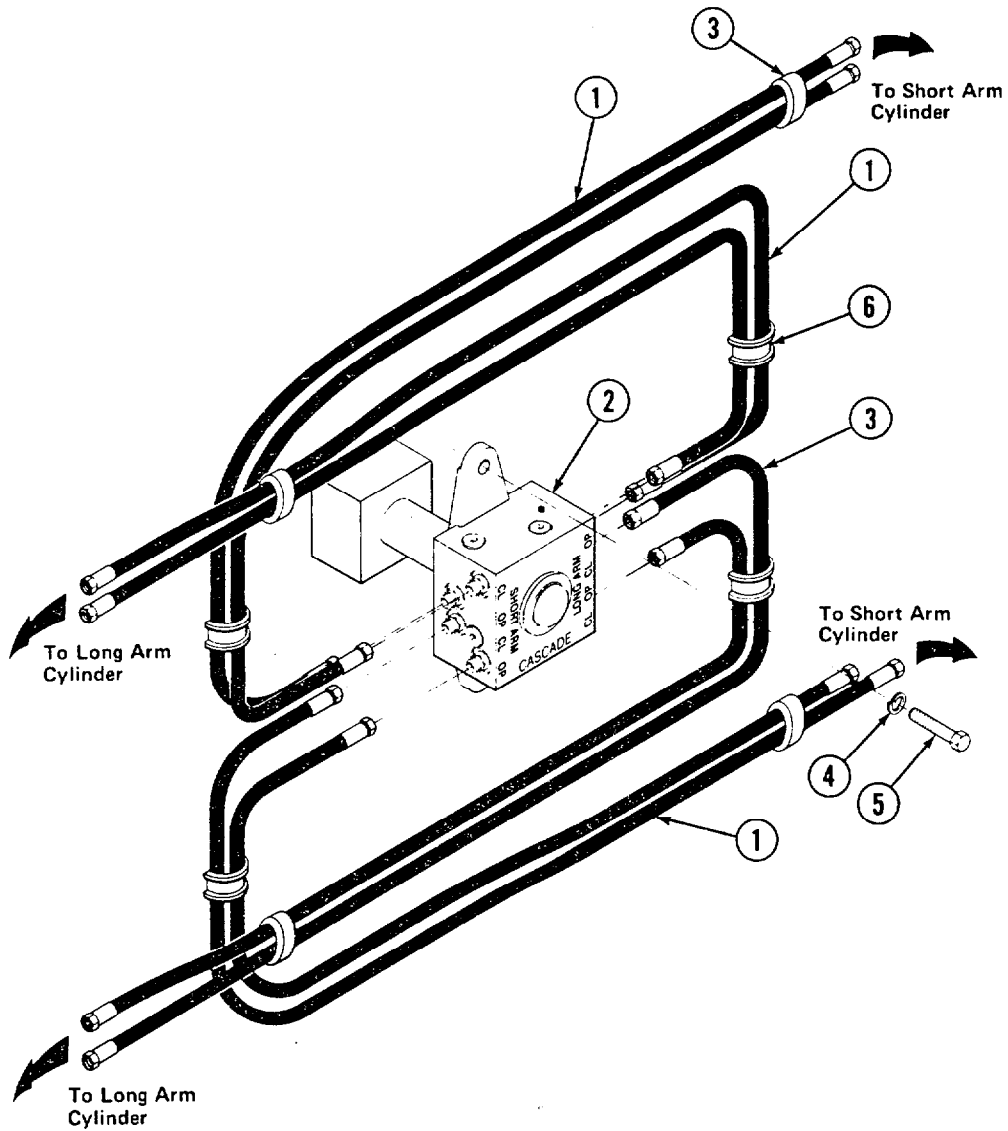


45F			
REF	QTY	PART NO.	DESCRIPTION
		682191	Hosing Group
1	2	680113	Insert
● 2	1	682077	Revolving Connection
3	2	673416	Segment
4	2	6288	Lockwasher
5	2	3603	Cap screw, 3/8 NC x 1.00
6	4	680115	Hose

● See page 8 for replacement parts breakdown.

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Hosing Group Positioned Short Arm

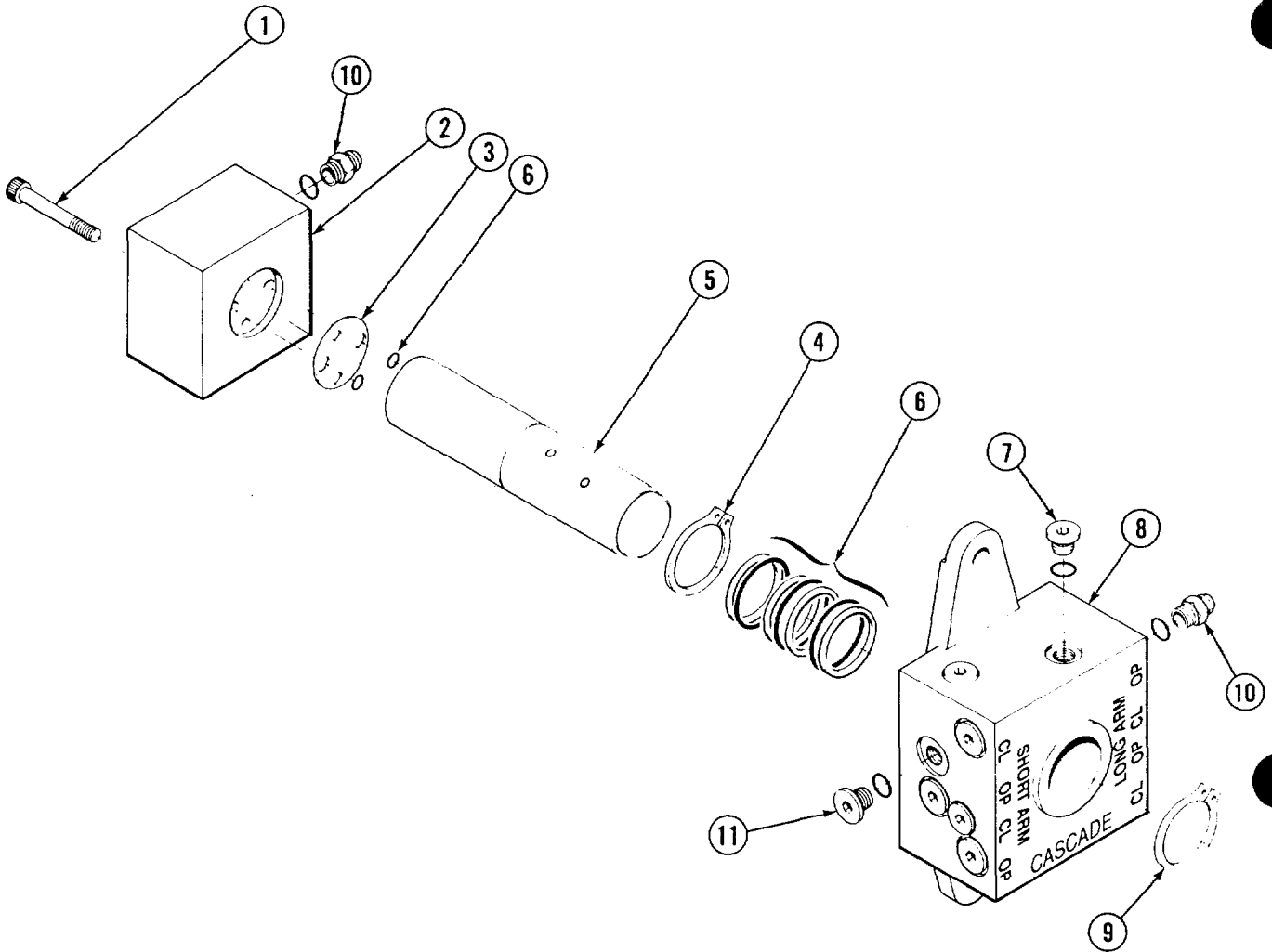


45F			
REF	QTY	PART NO.	DESCRIPTION
		682190	Hosing Group
1	8	680115	Hose
● 2	1	682075	Revolving Connection
3	4	673416	Segment
4	2	6288	Lockwasher
5	2	3603	Cap screw, 3/8 NC x 1.00
6	4	680113	Insert

● See page 9 for replacement parts breakdown.

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Revolving Connection Fixed Short Arm

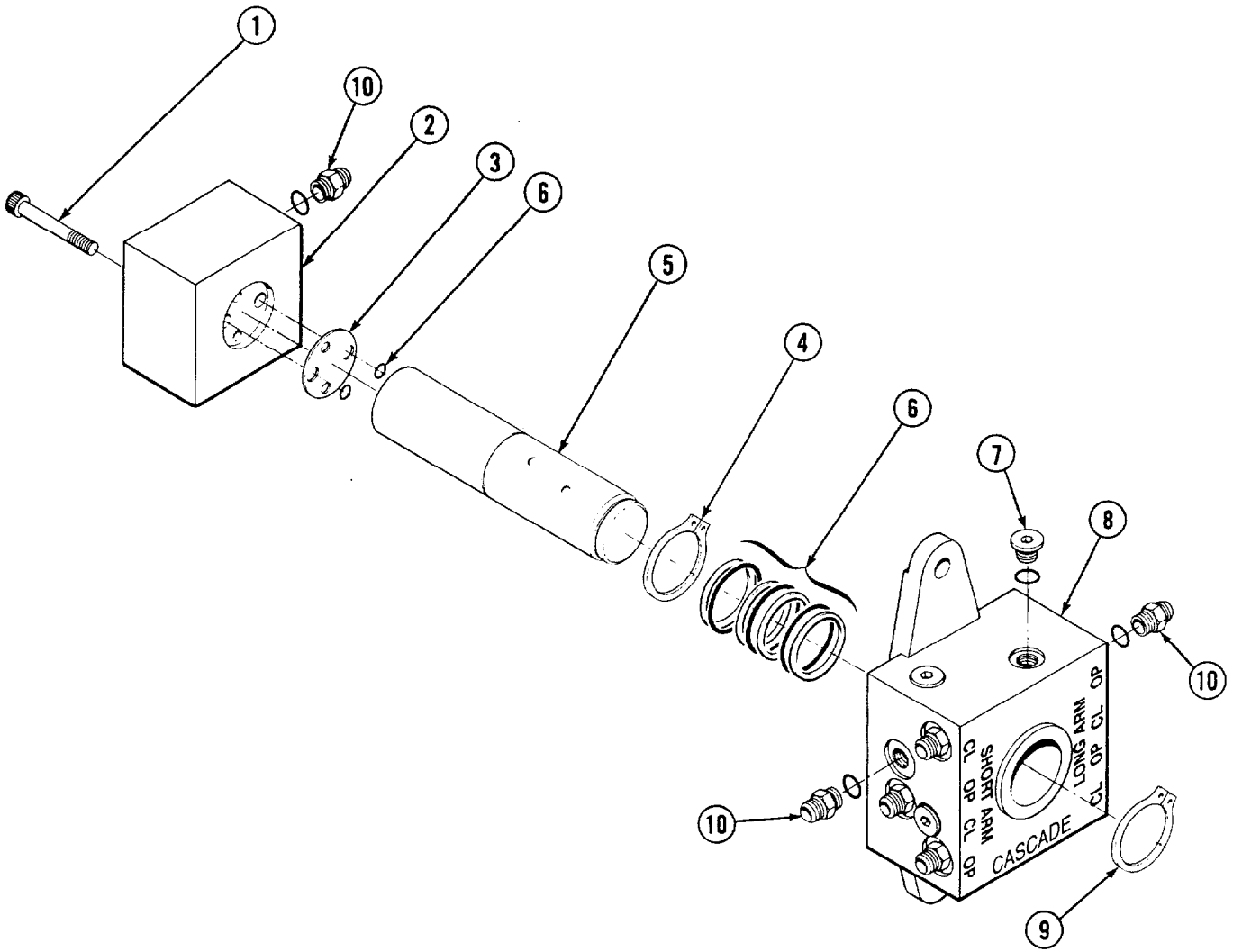


45F			
REF	QTY	PART NO.	DESCRIPTION
		●682077	Revolving Connection
1	2	768796	Capscrew, M8 x 35-8.8
2	1	682076	End Block
3	1	681593	Shim
4	1	7341	Snap Ring
5	1	681284	Shaft
6	1	681585	Service Kit
7	6	663694	Plug
8	1	681282	Body
9	1	3138	Snap Ring
10	6	604511	Fitting, 6-6
11	4	604510	Plug, 6

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●Revolving Connection Group 682075 may be used in place of Group 682077 by replacing four 604511 fittings with four 604510 plugs.

Revolving Connection Positioned Short Arm

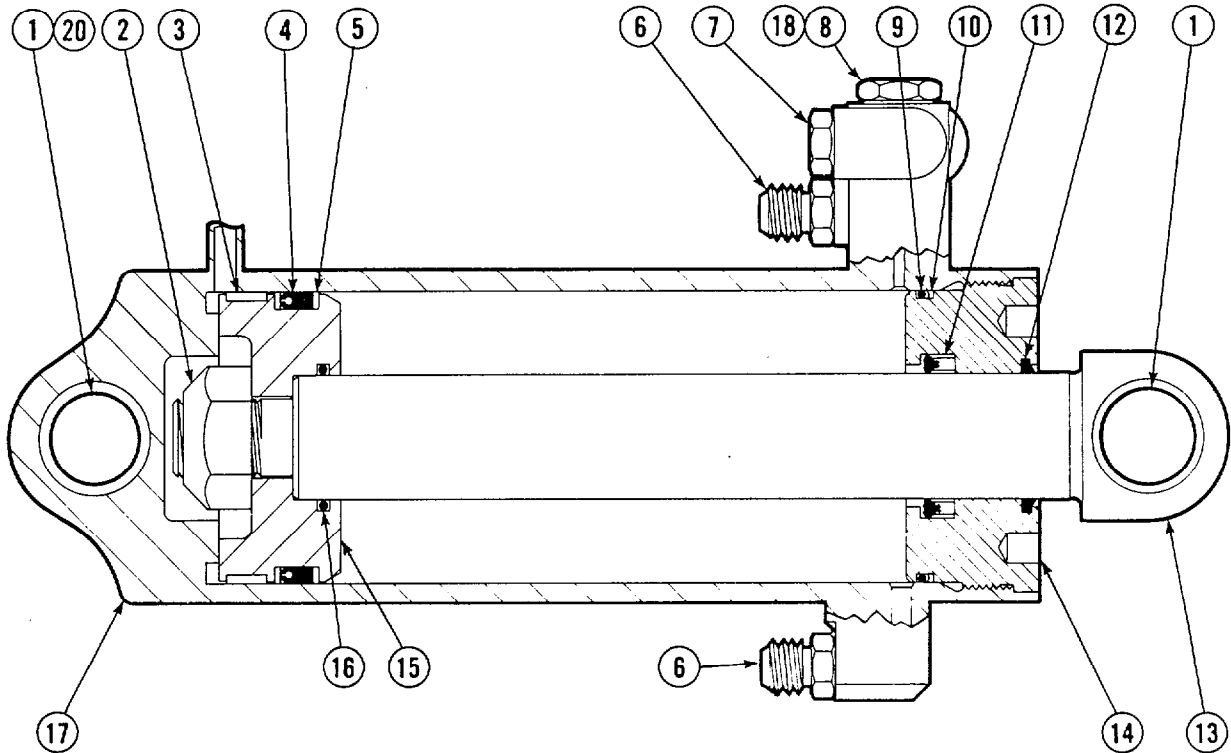


45F			
REF	QTY	PART NO.	DESCRIPTION
		●682075	Revolving Connection
1	2	768798	Capscrew, M8 x 45-8.8
2	1	682076	End Block
3	1	681593	Shim
4	1	7341	Snap Ring
5	1	681284	Shaft
6	1	681585	Service Kit
7	6	663694	Plug
8	1	681282	Body
9	1	3138	Snap Ring
10	10	604511	Fitting, 6-6

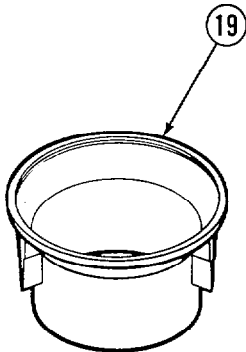
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●Revolving Connection Group 682077 may be used in place of Group 682075 by replacing four 604510 plugs with four 604511 fittings.

Short Arm Cylinder



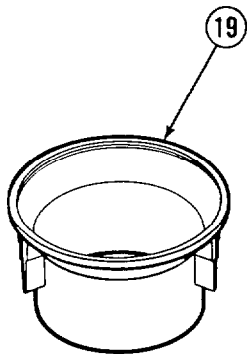
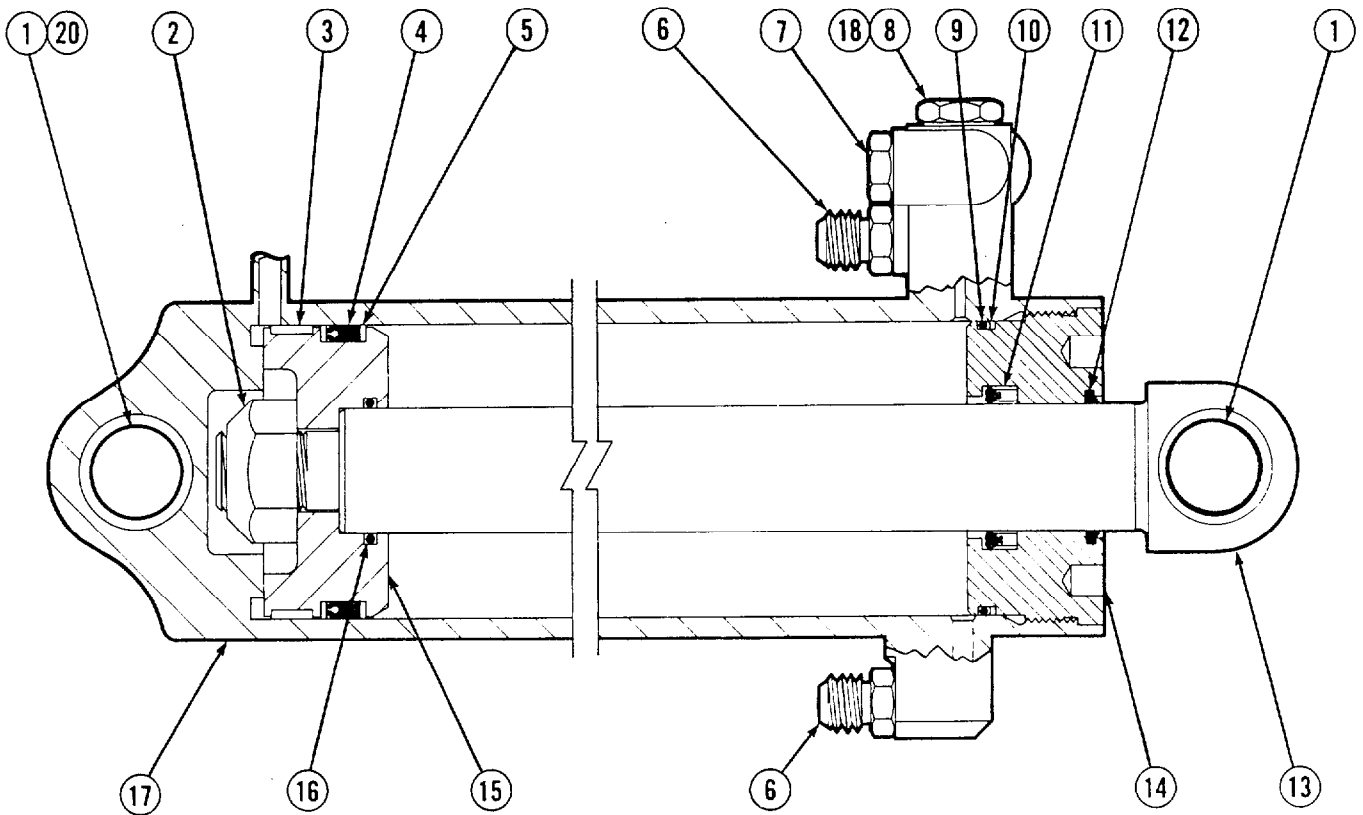
45F				
REF	QTY	45" Roll	51" Roll	DESCRIPTION
		PART NO.	PART NO.	
		555155	555156	Cylinder Assembly
1	3	674840	674840	Bearing
2	1	667990	667990	Nut
● 3	1	660767	660767	Bearing
● 4	1	555726	555726	Seal
● 5	2	638293	638293	Back-up Ring
6	2	604511	604511	Fitting, 6-6
7	1	556852	556852	Fitting, 6
8	1	557212	557212	Check Valve
● 9	1	2797	2797	O-Ring
● 10	3	615140	615140	Back-up Ring
● 11	1	554598	554598	Seal
● 12	1	628047	628047	Wiper
13	1	555243	555240	Rod
14	1	555207	555207	Retainer
15	1	555226	555226	Piston
● 16	1	2722	2722	O-Ring
17	1	555242	555239	Shell
18	1	667516	667516	Service Kit
19	1	672909	672909	Seal Loader
20	1	674848	674848	Spacer
		555227	555227	Service Kit



- Included in Service Kit 555227.
- Maximum clamp handling capacity.

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Long Arm Cylinder

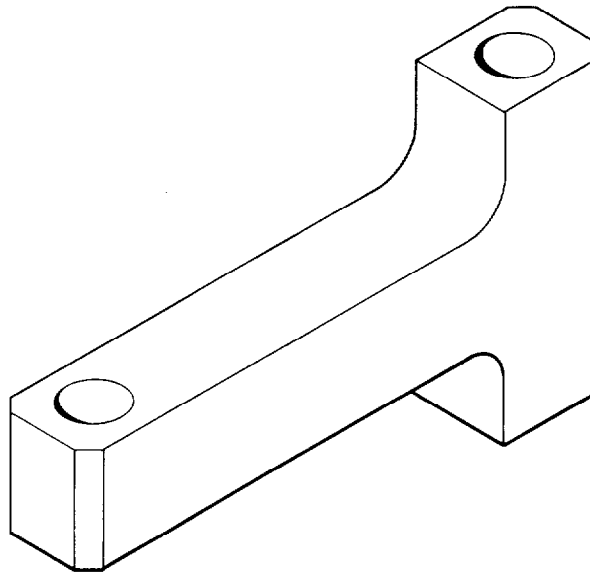


45F			
REF	QTY	PART NO.	DESCRIPTION
		555153	Cylinder Assembly
1	3	674840	Bearing
2	1	667990	Nut
• 3	1	660767	Bearing
• 4	1	555726	Seal
• 5	2	638293	Back-up Ring
6	2	604511	Fitting, 6-6
7	1	556852	Fitting, 6
8	1	557212	Check Valve
• 9	1	2797	O-Ring
• 10	1	615140	Back-up Ring
• 11	1	554598	Seal
• 12	1	628047	Wiper
13	1	555220	Rod
14	1	555207	Retainer
15	1	555226	Piston
• 16	1	2722	O-Ring
17	1	555219	Shell
18	1	667516	Service Kit
19	1	672909	Seal Loader
20	1	674848	Spacer
		555227	Service Kit

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• Included in Service Kit 555227.

Short Arm Link

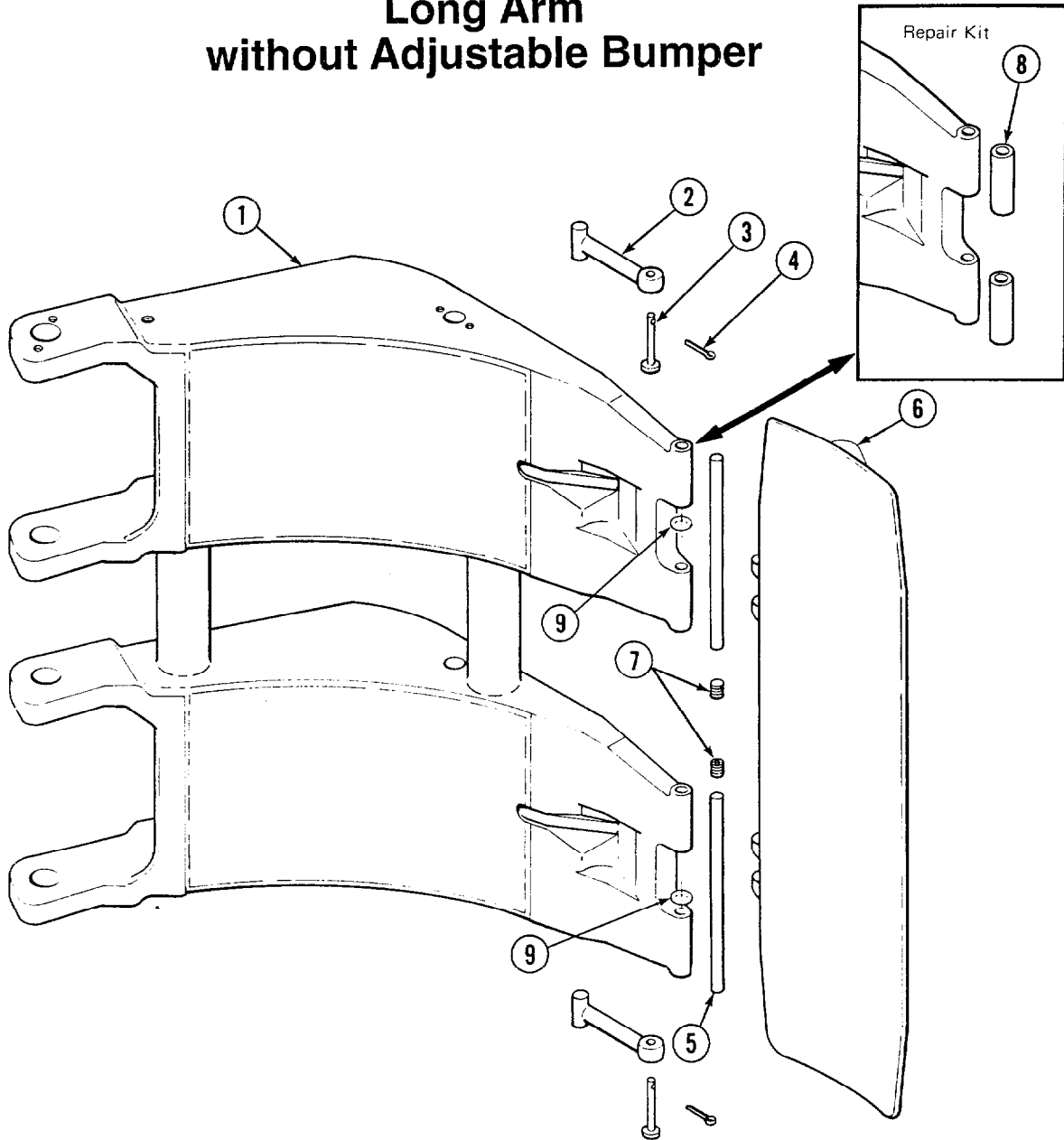


45F			
REF	QTY	PART NO.	DESCRIPTION
1	2	674851	Link – 45" Roll
	2	674852	Link – 51" Roll

□ Maximum clamp handling capacity.

3074d-229-10

Long Arm without Adjustable Bumper

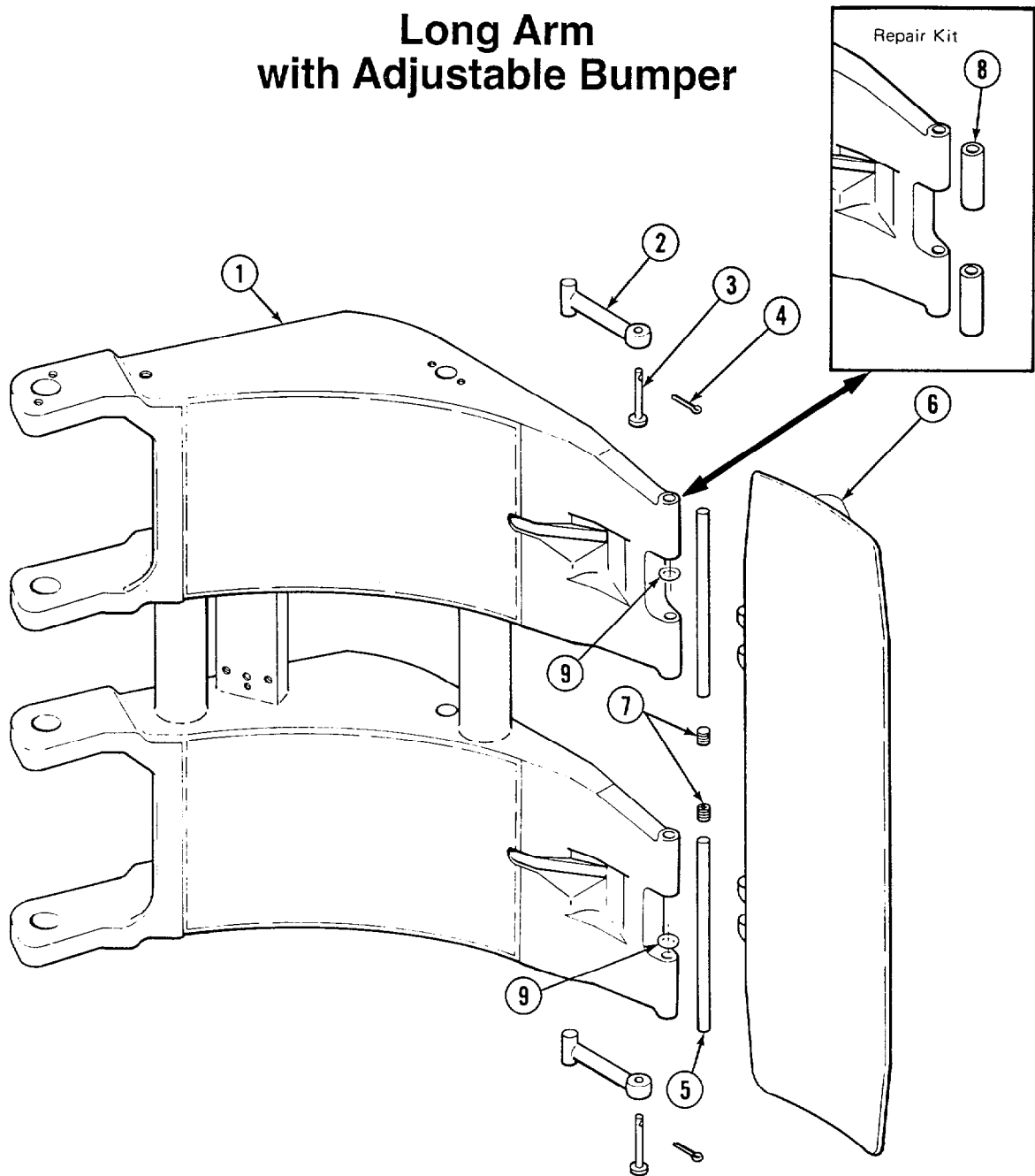


45F					
		45" Roll■	51" Roll■		
REF	QTY	PART NO.	PART NO.	DESCRIPTION	
		674716	674786	Arm Assembly	
1	1	674717	674784	Arm	
2	2	674700	674700	Link	
3	2	674265	674265	Clevis Pin	
4	2	6525	6525	Cotter Pin	
5	2	674701	674701	Pin	
6	1	674702	674702	Contact Pad	
7	2	6609	6609	Plug	
8	1	674928	674928	Arm Tip Repair Kit	
9	●	667910	667910	Washer	

- Maximum clamp handling capacity.
- Quantity as required.

30748-234-11

Long Arm with Adjustable Bumper

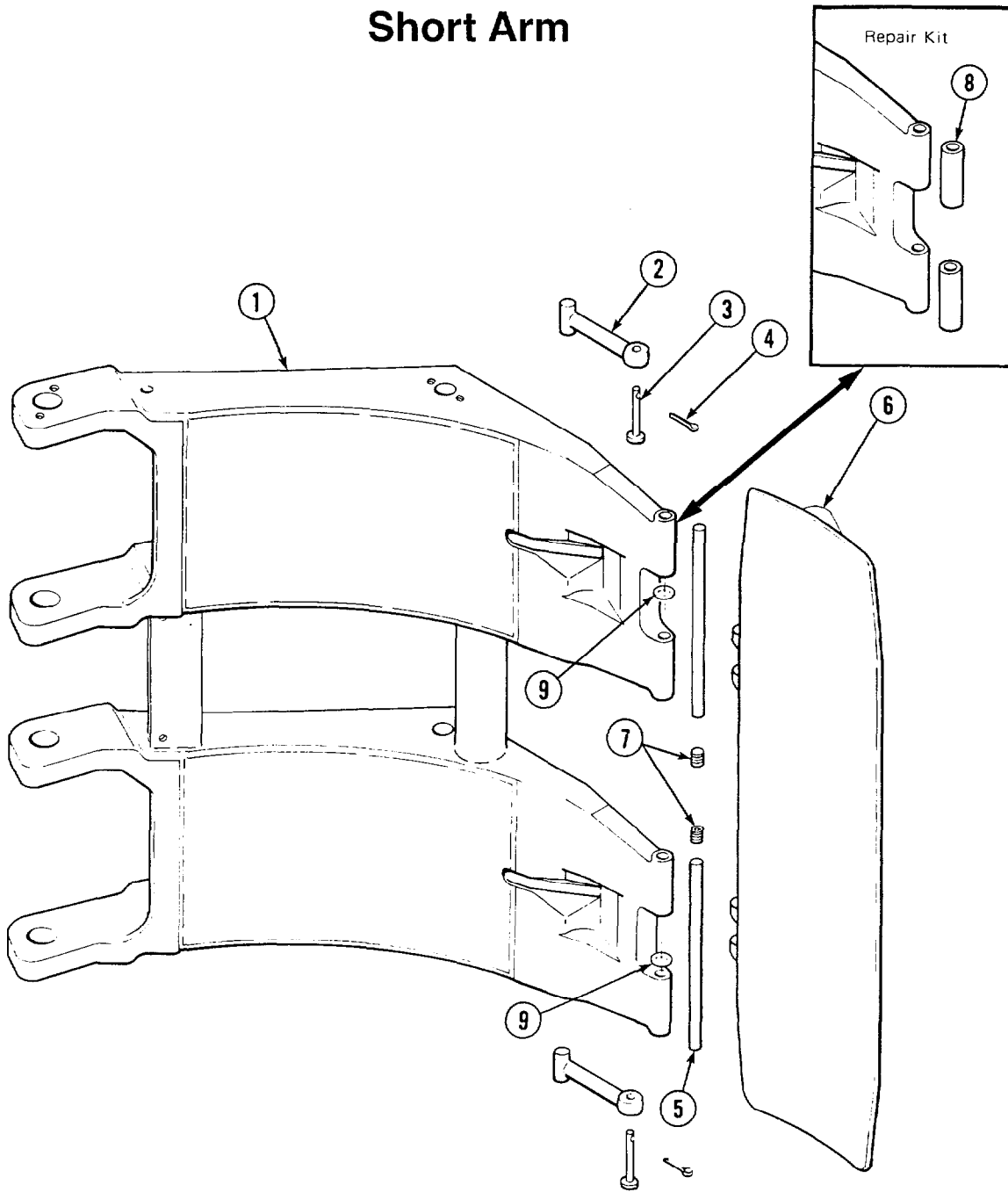


45F				
		45" Roll■	51" Roll■	
REF	QTY	PART NO.	PART NO.	DESCRIPTION
		680433	680435	Arm Assembly
1	1	680437	680439	Arm
2	2	674700	674700	Link
3	2	674265	674265	Clevis Pin
4	2	6525	6525	Cotter Pin
5	2	674701	674701	Pin
6	1	674702	674702	Contact Pad
7	2	6609	6609	Plug
8	1	674928	674928	Arm Tip Repair Kit
9	●	667910	667910	Washer

30748-240 10

- Maximum clamp handling capacity.
- Quantity as required.

Short Arm

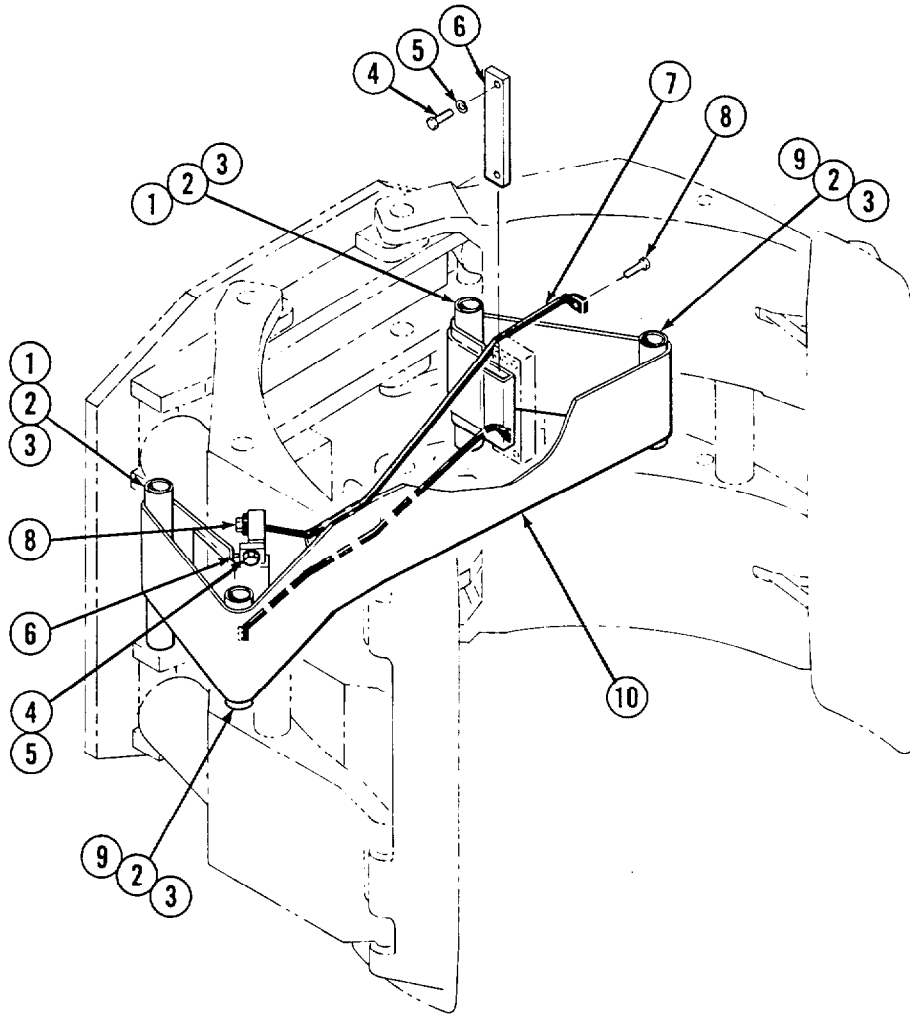


45F				
		45" Roll■	51" Roll■	
REF	QTY	PART NO.	PART NO.	DESCRIPTION
		674704	674771	Arm Assembly
1	1	674705	674769	Arm
2	2	674700	674700	Link
3	2	674265	674265	Clevis Pin
4	2	6525	6525	Cotter Pin
5	2	674701	674701	Pin
6	1	674702	674702	Contact Pad
7	2	6609	6609	Plug
8	1	674928	674928	Arm Tip Repair Kit
9	●	667910	667910	Washer

3074p-239 10

- Maximum clamp handling capacity.
- Quantity as required.

Adjustable Bumper Group



45F			
REF	QTY	PART NO.	DESCRIPTION
		674864	Bumper Group – 45" Roll■
		674865	Bumper Group – 51" Roll■
1	1	674846	Roller
2	6	674848	Bearing
3	6	674837	Shim
4	4	3655	Capscrew, 1/2 NC x 1.5
5	4	6455	Lockwasher
6	2	674850	Bar
7	2	676418	Tie Down
8	4	3577	Capscrew
9	2	674847	Roller
10	1	674841	Belt – 45" Roll■
	1	674842	Belt – 51" Roll■

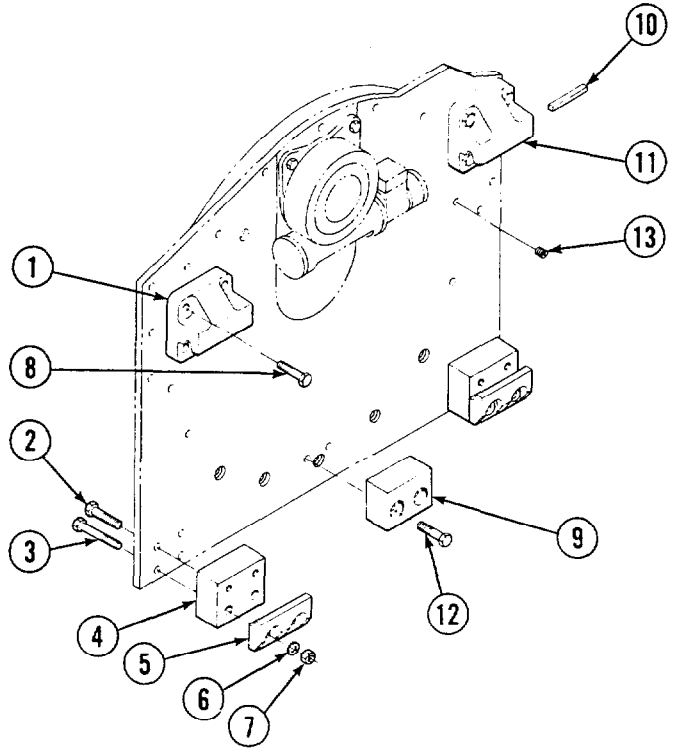
■ Maximum clamp handling capacity.

307-In-231 10

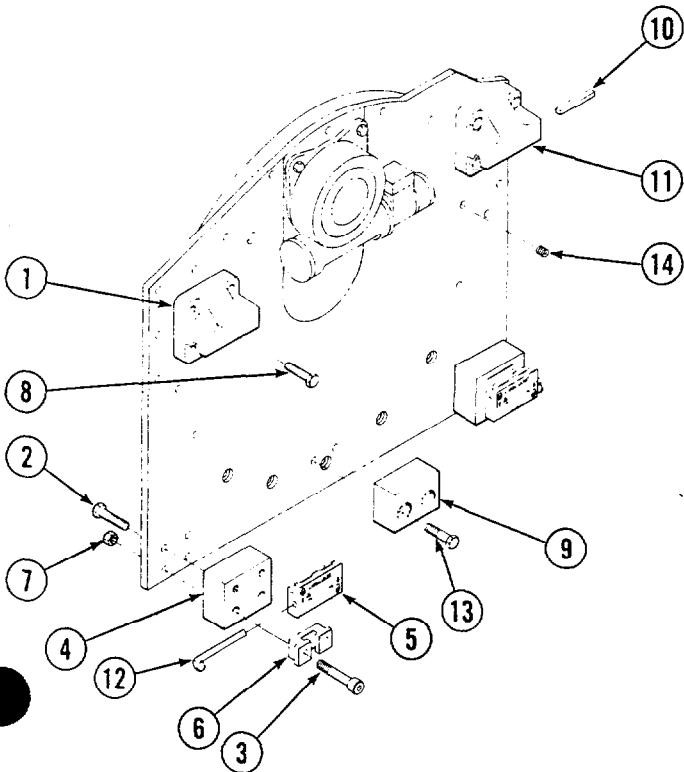
Bolt-On Mounting Group

45F Class III, 0°			
REF	QTY	PART NO.	DESCRIPTION
		680632	Mounting Group
1	1	670527	Upper Hook-L.H.
2	4	641284	Capscrew, 5/8 NC x 2.25 GR5
3	4	669305	Capscrew, 5/8 NC x 5.00 GR5
4	2	682068	Spacer
5	2	675969	Lower Hook
6	4	667225	Washer
7	4	676281	Nut, 5/8 NC GR5
8	8	667369	Capscrew
9	1	382067	Center Spacer
10	2	677828	Capscrew
11	1	669344	Stop Kit
12	1	670528	Upper Hook-R.H.
13	2	631385	Plug, 5/8"

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Quick Change Mounting Group



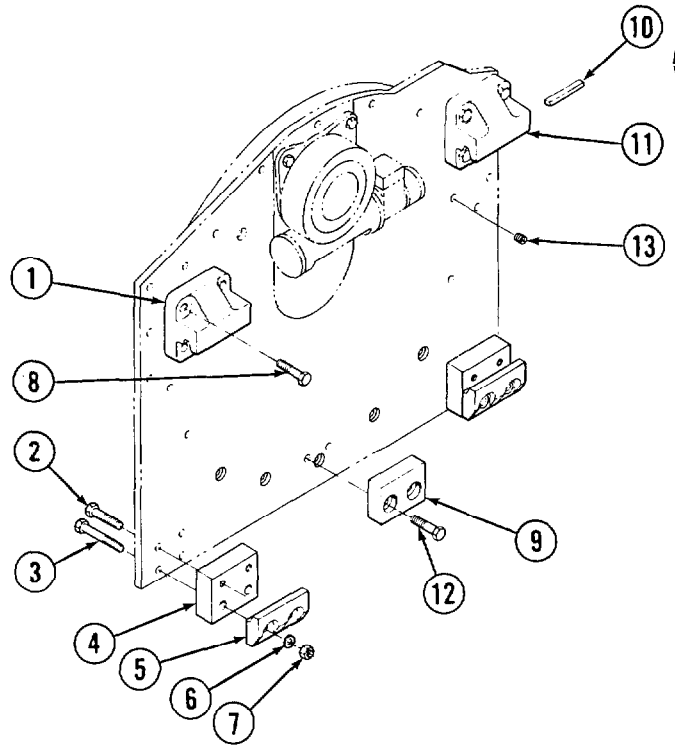
45F Class III, 0°			
REF	QTY	PART NO.	DESCRIPTION
		680688	Mounting Group
1	1	670527	Upper Hook-L.H.
2	4	641284	Capscrew, 5/8 NC x 2.25 GR5
3	4	607096	Capscrew, 5/8 NC x 5.00 GR8
4	2	682068	Spacer
5	2	675957	Hook
6	2	675958	Guide
7	4	676281	Nut, 5/8 NC GR5
8	8	667369	Capscrew
9	1	682067	Center Spacer
10	2	677828	Capscrew
11	1	669344	Stop Kit
12	1	670528	Upper Hook-R.H.
13	2	678832	Pin
14	2	631385	Plug, 5/8"

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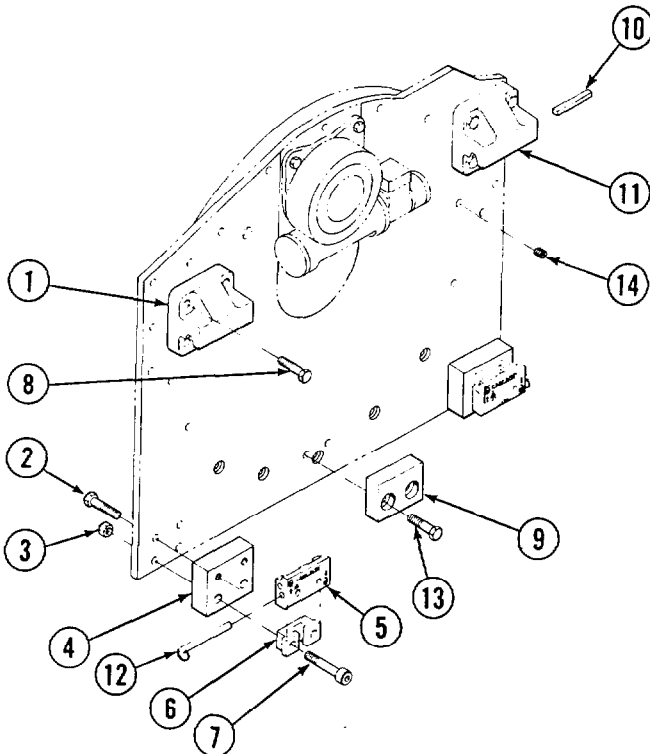
Bolt-On Mounting Group

45F Class III, 4°			
REF	QTY	PART NO.	DESCRIPTION
		680631	Mounting Group
1	1	670527	Upper Hook-L.H.
2	4	3709	Capscrew, 5/8 NC x 1.50
3	4	674261	Capscrew, 5/8 NC x 3.75 GR5
4	2	676037	Spacer
5	2	675969	Lower Hook
6	4	667225	Washer
7	4	676281	Nut, 5/8 NC GR5
8	8	667369	Capscrew
9	1	680683	Center Spacer
10	1	669344	Stop Kit
11	1	670528	Upper Hook-R.H.
12	2	677828	Capscrew
13	2	631385	Plug, 5/8"

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Quick Change Mounting Group

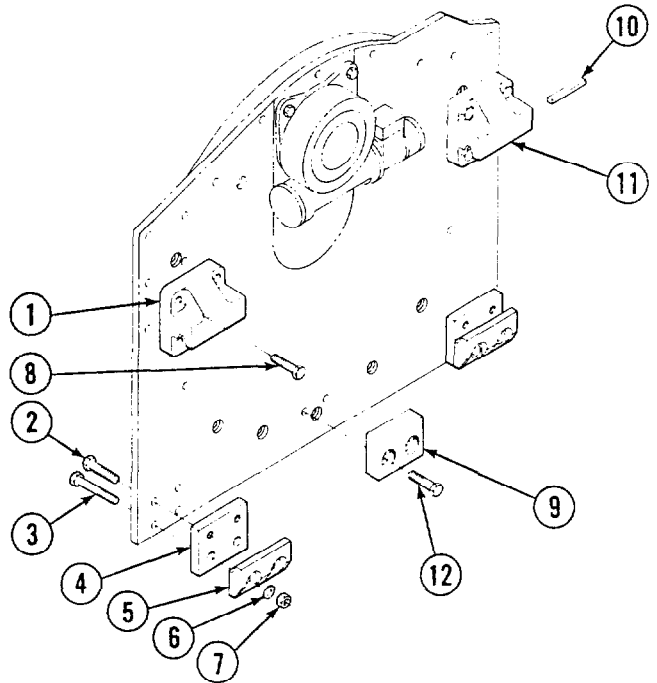


45F Class III, 4°			
REF	QTY	PART NO.	DESCRIPTION
		680687	Mounting Group
1	1	670527	Upper Hook-L.H.
2	4	3709	Capscrew, 5/8 NC x 1.50
3	4	682100	Capscrew, 5/8 NC x 3.75 GR8
4	2	676037	Spacer
5	2	675957	Hook
6	2	675958	Guide
7	4	676281	Nut, 5/8 NC GR5
8	8	667369	Capscrew
9	1	680683	Center Spacer
10	1	669344	Stop Kit
11	1	670528	Upper Hook-R.H.
12	2	678832	Pin
13	2	677828	Capscrew
14	2	631385	Plug, 5/8"

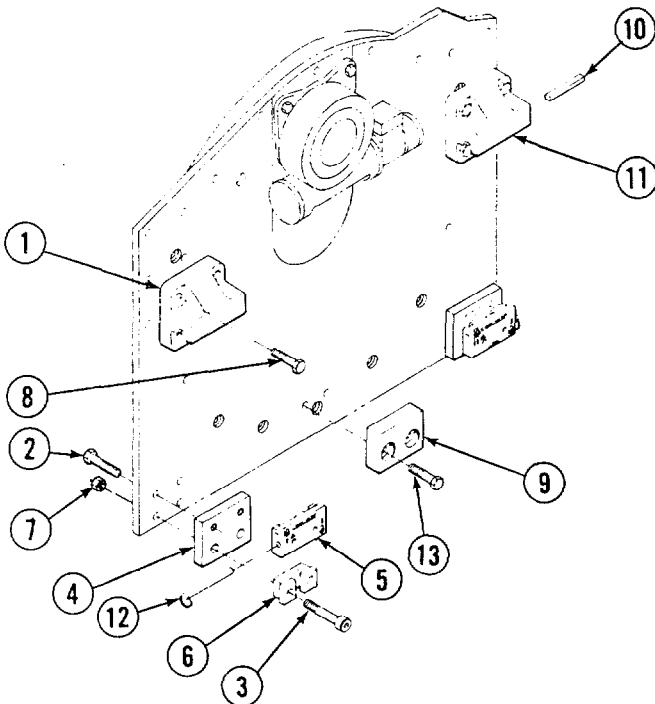
3174-233 10

Bolt-On Mounting Group

45F Class II, 4°			
REF	QTY	PART NO.	DESCRIPTION
		680629	Mounting Group
1	1	670523	Upper Hook-L.H.
2	4	3708	Capscrew, 5/8 NC x 1.25
3	4	640299	Capscrew, 5/8 NC x 2.75 GR5
4	2	676036	Spacer
5	2	675968	Lower Hook
6	4	667225	Washer
7	4	676281	Nut, 5/8 NC GR5
8	8	667765	Capscrew
9	1	680681	Center Spacer
10	1	669344	Stop Kit
11	1	670524	Upper Hook-R.H.
12	2	680684	Capscrew



Quick Change Mounting Group

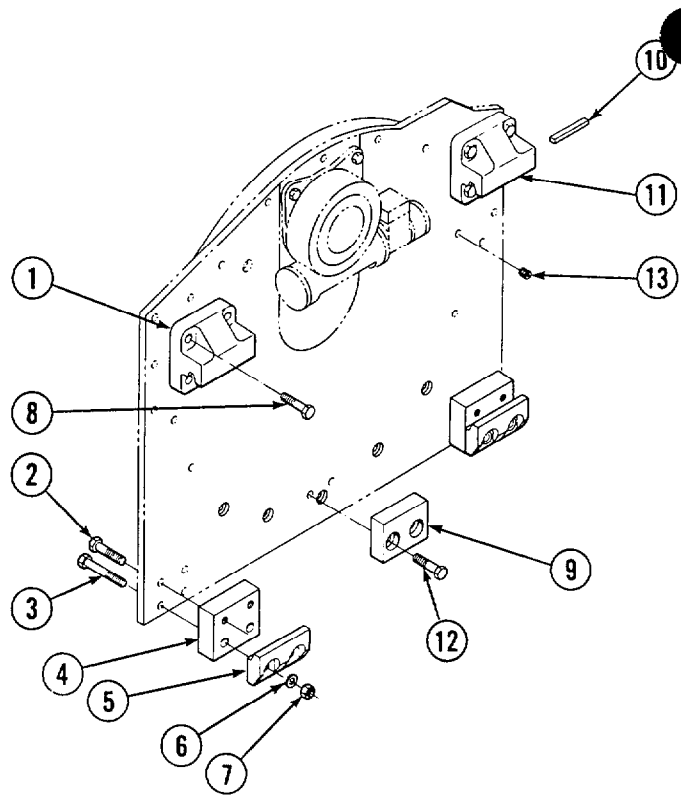


45F Class II, 4°			
REF	QTY	PART NO.	DESCRIPTION
		680685	Mounting Group
1	1	670523	Upper Hook-L.H.
2	4	3708	Capscrew, 5/8 NC x 1.25
3	4	679826	Capscrew
4	2	676036	Spacer
5	2	675514	Hook
6	2	675515	Guide
7	4	676281	Nut, 5/8 NC GR5
8	8	667765	Capscrew
9	1	680681	Center Spacer
10	1	669344	Stop Kit
11	1	670524	Upper Hook-R.H.
12	2	678832	Pin
13	2	680684	Capscrew

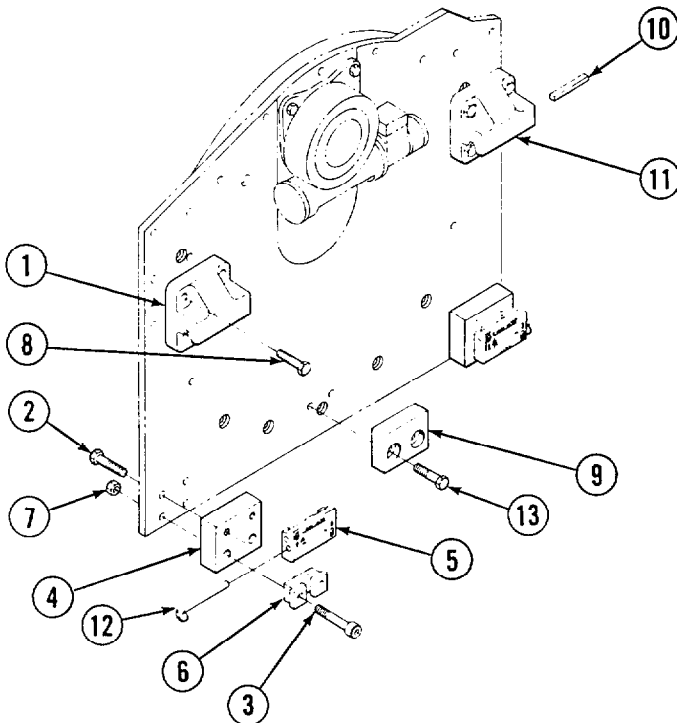
Bolt-On Mounting Group

45F Class II, 0°			
REF	QTY	PART NO.	DESCRIPTION
		680630	Mounting Group
1	1	670523	Upper Hook-L.H.
2	4	3709	Capscrew, 5/8 NC x 1.50
3	4	674261	Capscrew, 5/8 NC x 3.75 GR5
4	2	676037	Spacer
5	2	675968	Lower Hook
6	4	667225	Washer
7	4	676281	Nut, 5/8 NC GR5
8	8	667765	Capscrew
9	1	680683	Center Spacer
10	1	669344	Stop Kit
11	1	670524	Upper Hook-R.H.
12	2	677828	Capscrew

3074-235-11



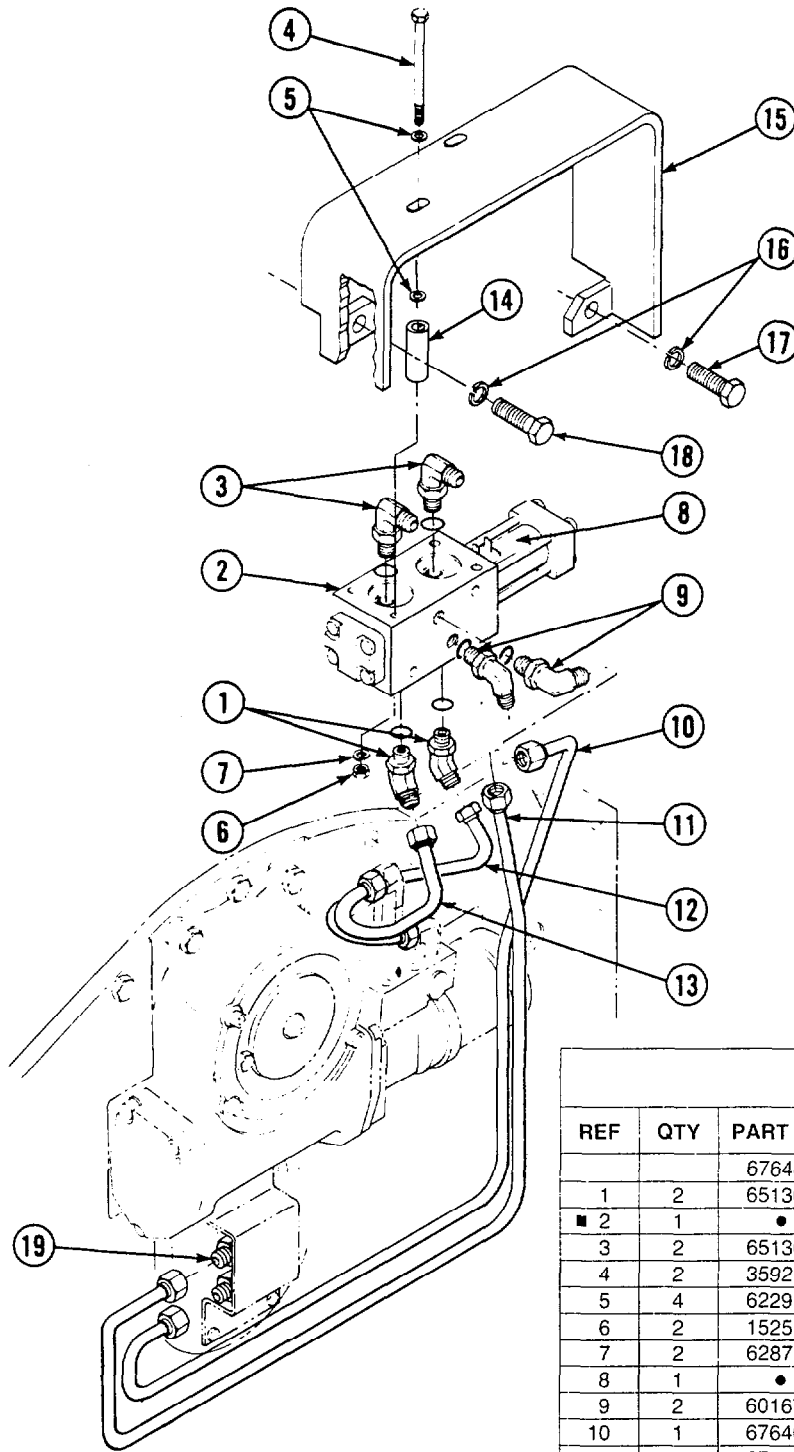
Quick Change Mounting Group



45F Class II, 0°			
REF	QTY	PART NO.	DESCRIPTION
		680686	Mounting Group
1	1	670523	Upper Hook-L.H.
2	4	3709	Capscrew, 5/8 NC x 1.50
3	4	679827	Capscrew
4	2	676037	Spacer
5	2	675514	Hook
6	2	675515	Guide
7	4	676281	Nut, 5/8 NC GR5
8	8	667765	Capscrew
9	1	680683	Center Spacer
10	1	669344	Stop Kit
11	1	670524	Upper Hook-R.H.
12	2	678832	Pin
13	2	677828	Capscrew

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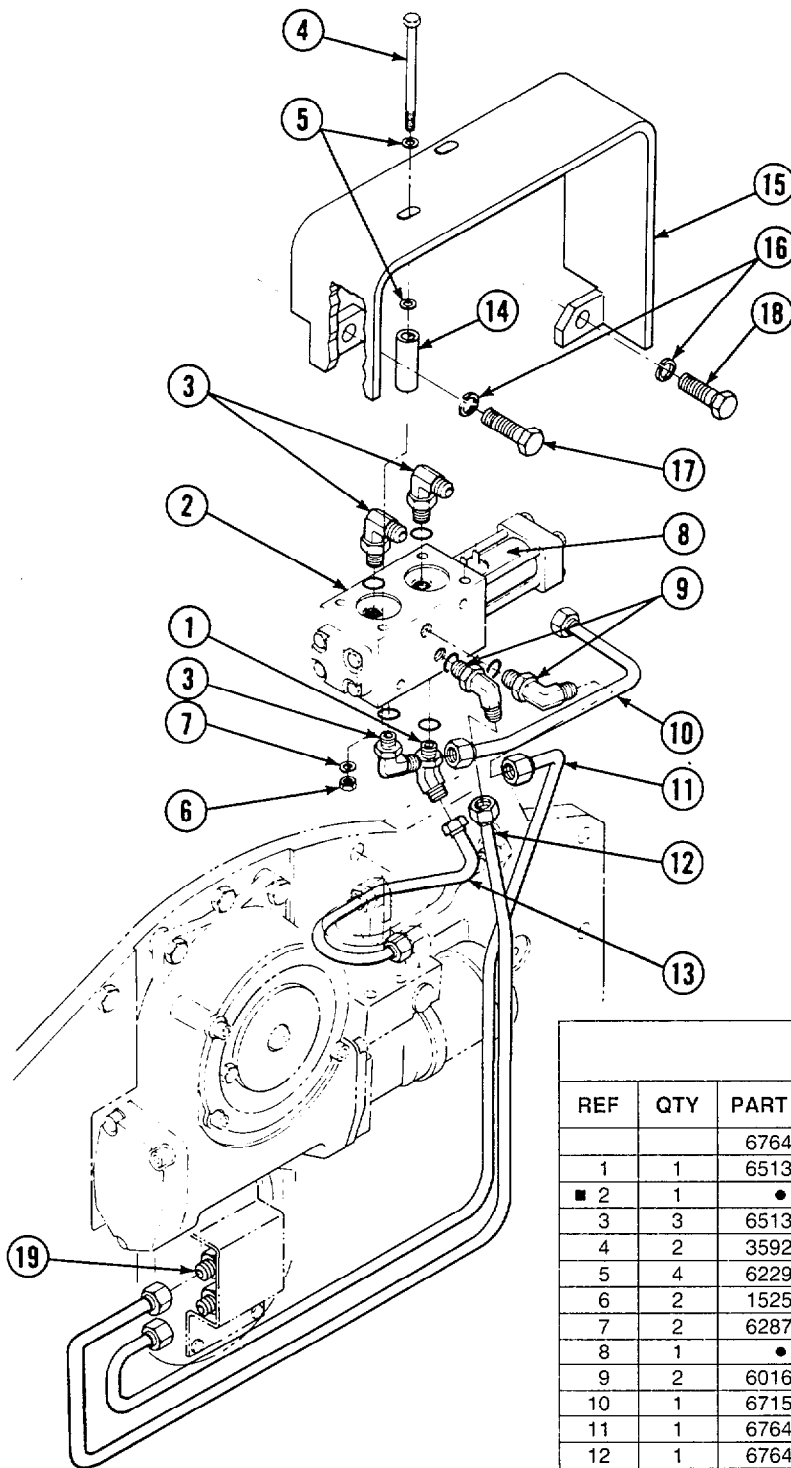
Solenoid Adaption Option



45F			
REF	QTY	PART NO.	DESCRIPTION
		676405	Solenoid Adaption Group
1	2	651302	Fitting, 8-6
■ 2	1	●	Solenoid Valve
3	2	651303	Fitting, 8-6
4	2	3592	Capscrew, 5/16 NC x 5.50
5	4	6229	Washer, 5/16 ID
6	2	15251	Nut, 5/16 NC
7	2	6287	Lockwasher, 5/16 ID
8	1	●	Coil
9	2	601676	Fitting, 6-6
10	1	676407	Tube
11	1	676408	Tube
12	1	671516	Tube
13	1	671512	Tube
14	2	665115	Tube
15	1	675411	Guard
16	2	6290	Lockwasher, 1/2 ID
17	1	601854	Capscrew, 1/2 NC x 1.0
18	1	636408	Capscrew, 1/2 NC x 2.0
19	2	604511	Fitting, 6-6

- See page 23.
- Includes item 8.

Solenoid Adaption Option for 180° Stop Group

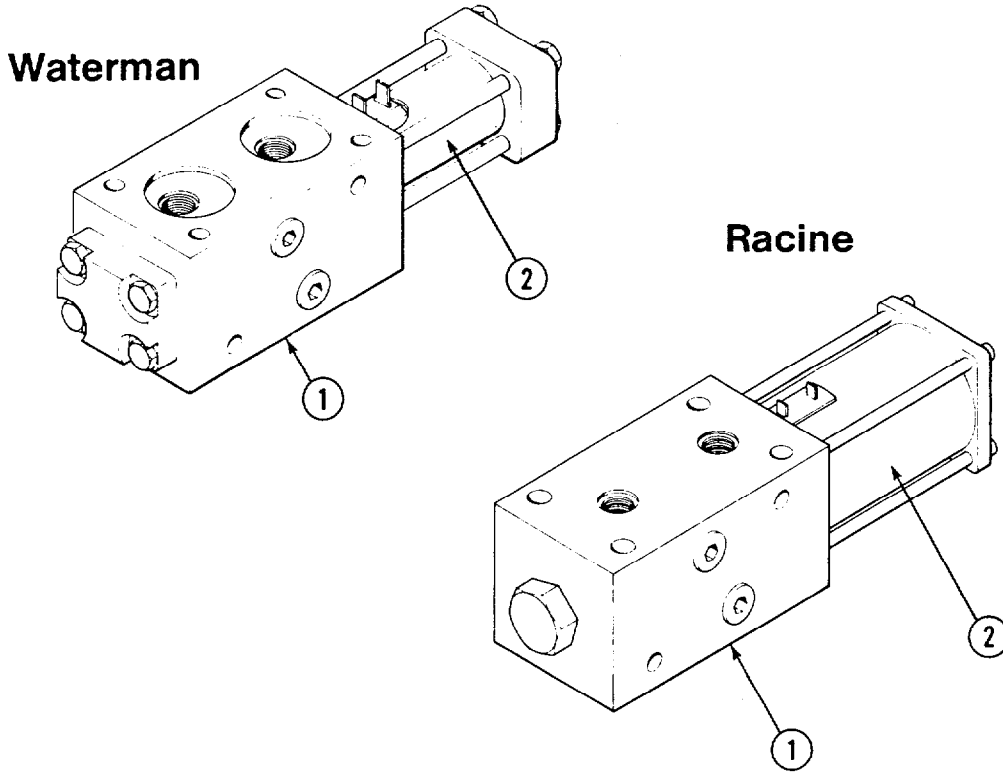


45F			
REF	QTY	PART NO.	DESCRIPTION
		676406	Solenoid Adaption Group
1	1	651302	Fitting, 8-6
■ 2	1	•	Solenoid Valve
3	3	651303	Fitting, 8-6
4	2	3592	Capscrew, 5/16 NC x 5.50
5	4	6229	Washer, 5/16 ID
6	2	15251	Nut, 5/16 NC
7	2	6287	Lockwasher, 5/16 ID
8	1	•	Coil
9	2	601676	Fitting, 6-6
10	1	671513	Tube
11	1	676407	Tube
12	1	676408	Tube
13	1	671516	Tube
14	2	665115	Tube
15	1	675411	Guard
16	2	6290	Lockwasher, 1/2 ID
17	1	601854	Capscrew, 1/2 NC x 1.0
18	1	636408	Capscrew, 1/2 NC x 2.0
19	2	604511	Fitting, 6-6

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- See page 23.
- Includes item 8.

Solenoid Valves



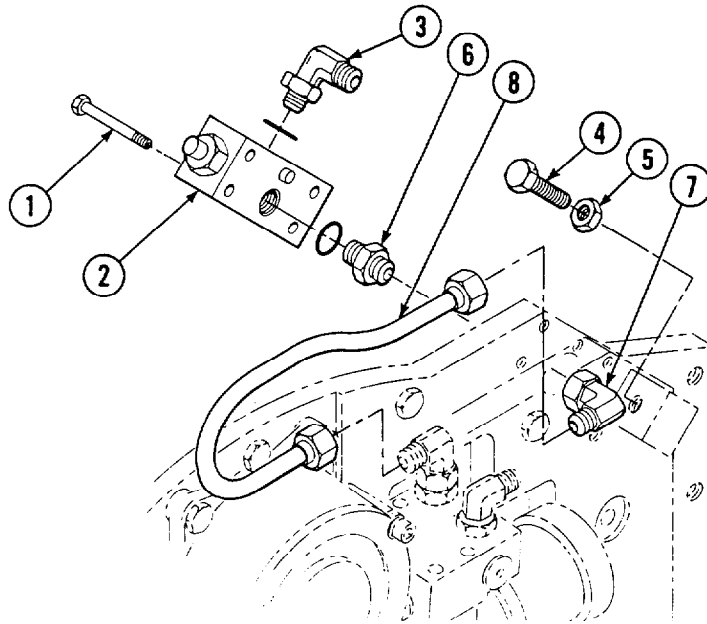
Note: Racine and Waterman Solenoid Valve assemblies are interchangeable as a unit. Coils must match valve.

REF	QTY	Waterman PART NO.	Racine PART NO.	DESCRIPTION
• 1	1	614089	614089	Solenoid Valve - 12V
	1	614091	614091	Solenoid Valve - 24V
	1	614092	614092	Solenoid Valve - 36V
	1	614093	614093	Solenoid Valve - 48V
	1	614094	-	Solenoid Valve - 72V
2	1	611458	665044	Coil - 12V
	1	611460	665045	Coil - 24V
	1	611461	665046	Coil - 36V
	1	614097	665047	Coil - 48V
	1	614098	-	Coil - 72V
	1	685072	685012	Seal Kit

• Includes item 2.

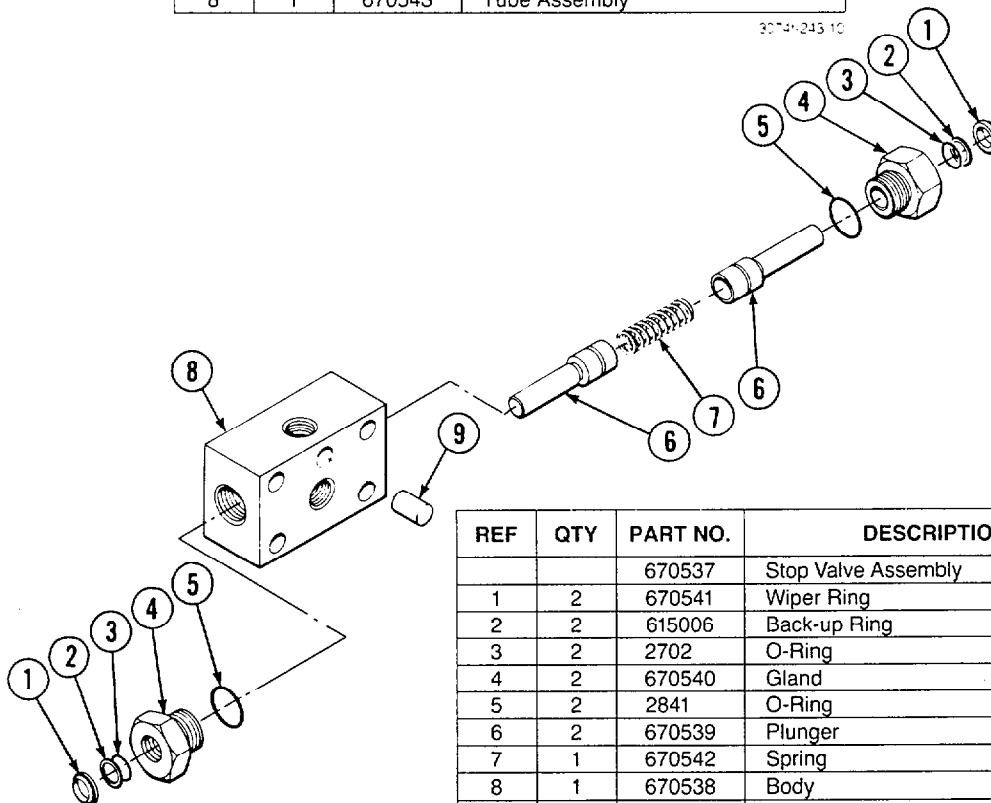
3174-231-1

180° Stop Group



45F			
REF	QTY	PART NO.	DESCRIPTION
		670545	Stop Group
1	4	670544	Capscrew, 3/8 NC x 1.75
2	1	670537	Valve Assembly
3	1	651303	Fitting
4	2	3710	Capscrew, 5/8 NC x 1.75
5	2	5932	Nut, 5/8 NC
6	1	662187	Fitting
7	1	605761	Fitting
8	1	670543	Tube Assembly

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REF	QTY	PART NO.	DESCRIPTION
		670537	Stop Valve Assembly
1	2	670541	Wiper Ring
2	2	615006	Back-up Ring
3	2	2702	O-Ring
4	2	670540	Gland
5	2	2841	O-Ring
6	2	670539	Plunger
7	1	670542	Spring
8	1	670538	Body
9	1	611210	Pin

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Do you have questions you need answered right now? Call your nearest Cascade Parts Department.

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