



# Parts Manual

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## 70D Pivot Arm Paper Roll Clamp

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Serial Numbers 662708 through 662715

Manual Number 673922

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# HOW TO USE THIS MANUAL

## INTRODUCTION

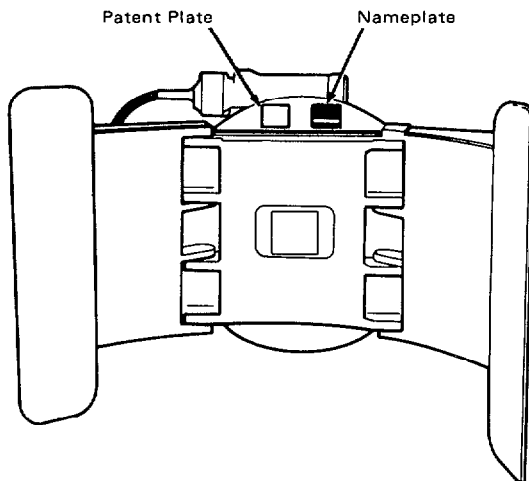
This manual illustrates service replacement parts for standard production 70D Cascade Pivot Arm Paper Roll Clamps.

The parts manuals for attachments designed by the Application Engineering Department have an S.E.L. designation on the cover of the manual. A standard attachment manual is not interchangeable with an S.E.L. Manual since it does not reflect the special engineering of an S.E.L. attachment.

To locate a replacement part for a standard attachment, complete the following steps.

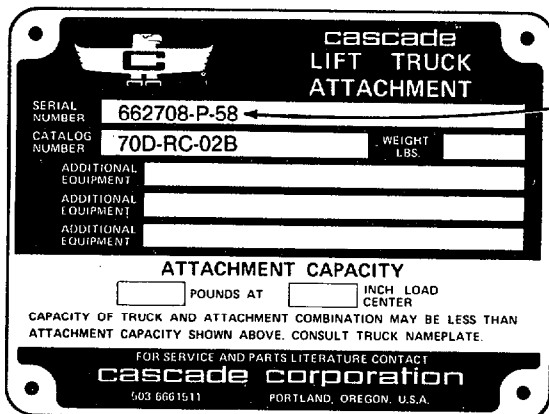
### 1. Locate the Nameplate

The nameplate is attached to the front of the rotator 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 alpha-numeric serial number.



### 3. Refer to the Serial Number Index

The Serial Number Index on page i contains a listing of serial numbers, beginning with the lowest number first.

Locate your serial number in this Index.

The columns to the right of the serial number will give you the correct page number for specific parts groups.

### EXAMPLE

The nameplate gives a serial number of 662708.

The columns to the right of this serial number in the Index will give you the correct page for a specific parts group.

For instance, the Valve Group for this clamp is on page 3 and the Mounting Group is on page 8.

### 4. Ordering

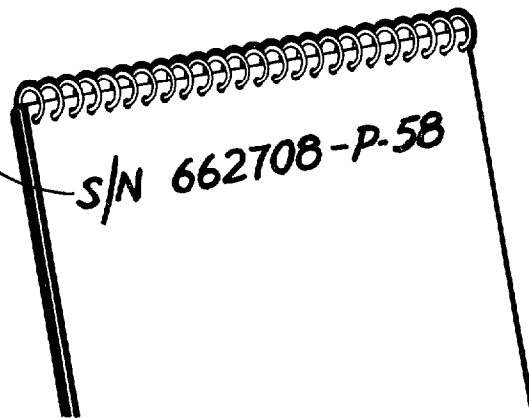
**Retail Customers.** Cascade Service Replacement Parts and Service Literature are sold through authorized lift truck dealers. To order, contact the lift truck dealer of your choice.

**Lift Truck Dealers.** To order Service Replacement Parts or Service Literature, contact:

Cascade Parts Depot  
2501 Sheridan Avenue  
P.O. Box 360  
Springfield, Ohio 45505  
(513) 322-1199

### 5. For Your Convenience

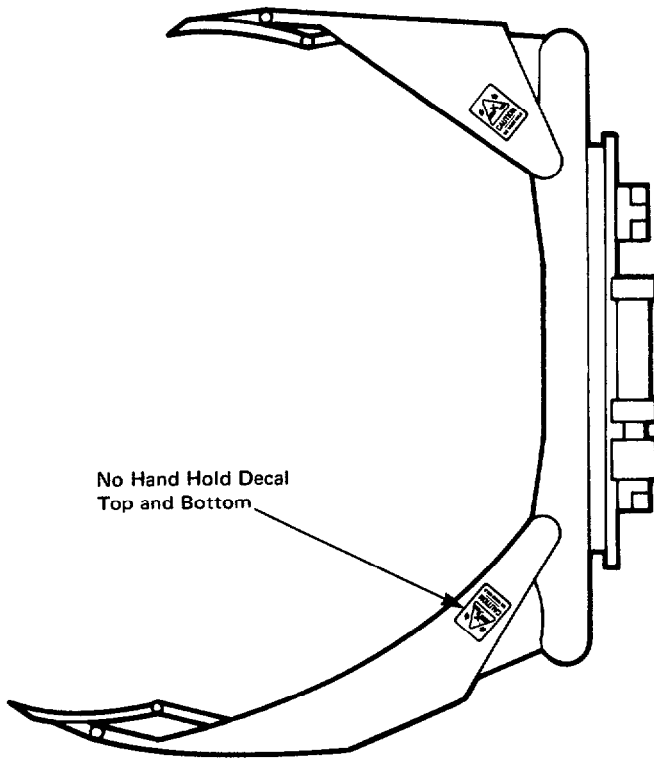
... we have supplied a parts ordering log located on the last page. Use this log as a permanent record of parts ordered from this manual.



# Serial Number Index

Serial Number (U.I. No.)	Model	Frame Group Page	Drive Group Page	Check Valve Page	Solenoid Adaption Page	Revolving Connection Page	Long Arm Cylinder Page	Short Arm Cylinder Page	Long Arm Page	Short Arm Page	Mounting Group Page	180° Stop Group Page
662708	70D	1	2	3	3A	4	5	5B	6	7	8	9
662709	70D	1	2	3	3A	4	5	5B	6	7	8	9
662710	70D	1	2	3	3A	4	5	5B	6	7	8A	9
662711	70D	1	2	3	3A	4	5	5B	6	7	8A	9
662712	70D	1	2	3	3A	4	5	5A	6	7	8	9
662713	70D	1	2	3	3A	4	5	5A	6	7	8	9
662714	70D	1	2	3	3A	4	5	5A	6	7	8A	9
662715	70D	1	2	3	3A	4	5	5A	6	7	8A	9

## Safety Decal



QTY.	PART NO.	DESCRIPTION
4	656038	No Hand Hold Decal



# Recommended Spare Parts List

## 70D Pivot Arm Paper Roll Clamp

Group & Description	70D	Attachments Serviced	
		1 - 5	6 - 19

### FRAME GROUP

Pin	651375	0	4
Bushing	628070	0	8
Shim	662220	4	14

### SHORT & LONG ARM GROUP

Pin	663904	2	4
Arm	See Serial No. Index	0	0
Contact Plate	648701	0	4

### DRIVE GROUP

Pinion	665571	0	1
Worm	655597	0	1
Bearing	13663	2	2
Worm Gear	625430	1	1
Bearing	662739	1	1
Bearing	13662	1	1
Snap Ring	7204	2	2
O-Ring (Cover Seal)	2833	1	1
Spring Washer Service Kit	● 655645	0	2
Pinion Seal	662737	1	2

● This part number is for a single washer — each attachment uses 16 spring washers.

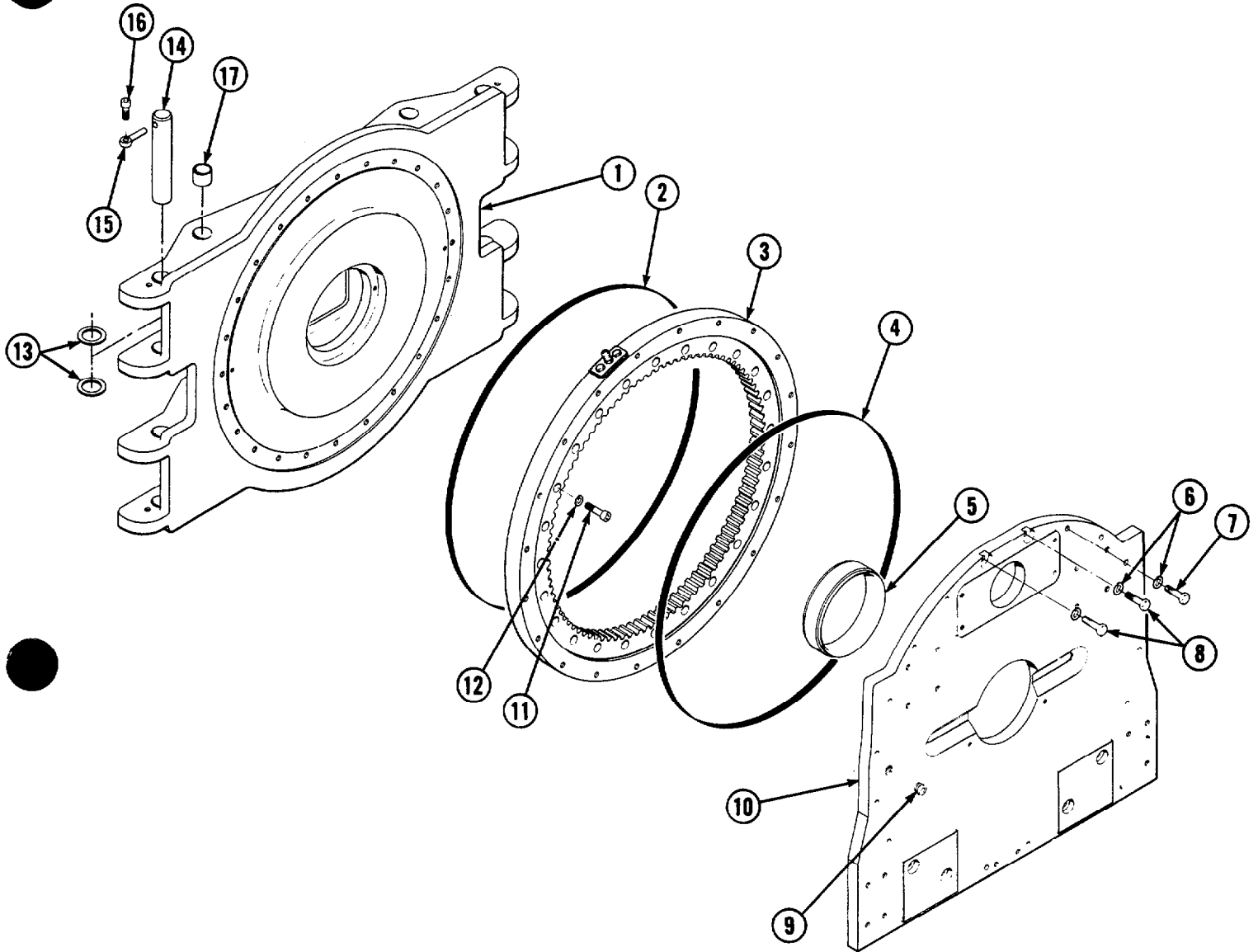
### CYLINDERS

Long Arm Service Kit	660049	2	4
Short Arm Service Kit	663761	1	2
Long Arm Cylinder	660036	0	1
Short Arm Cylinder	663719	0	1

### REVOLVING CONNECTION

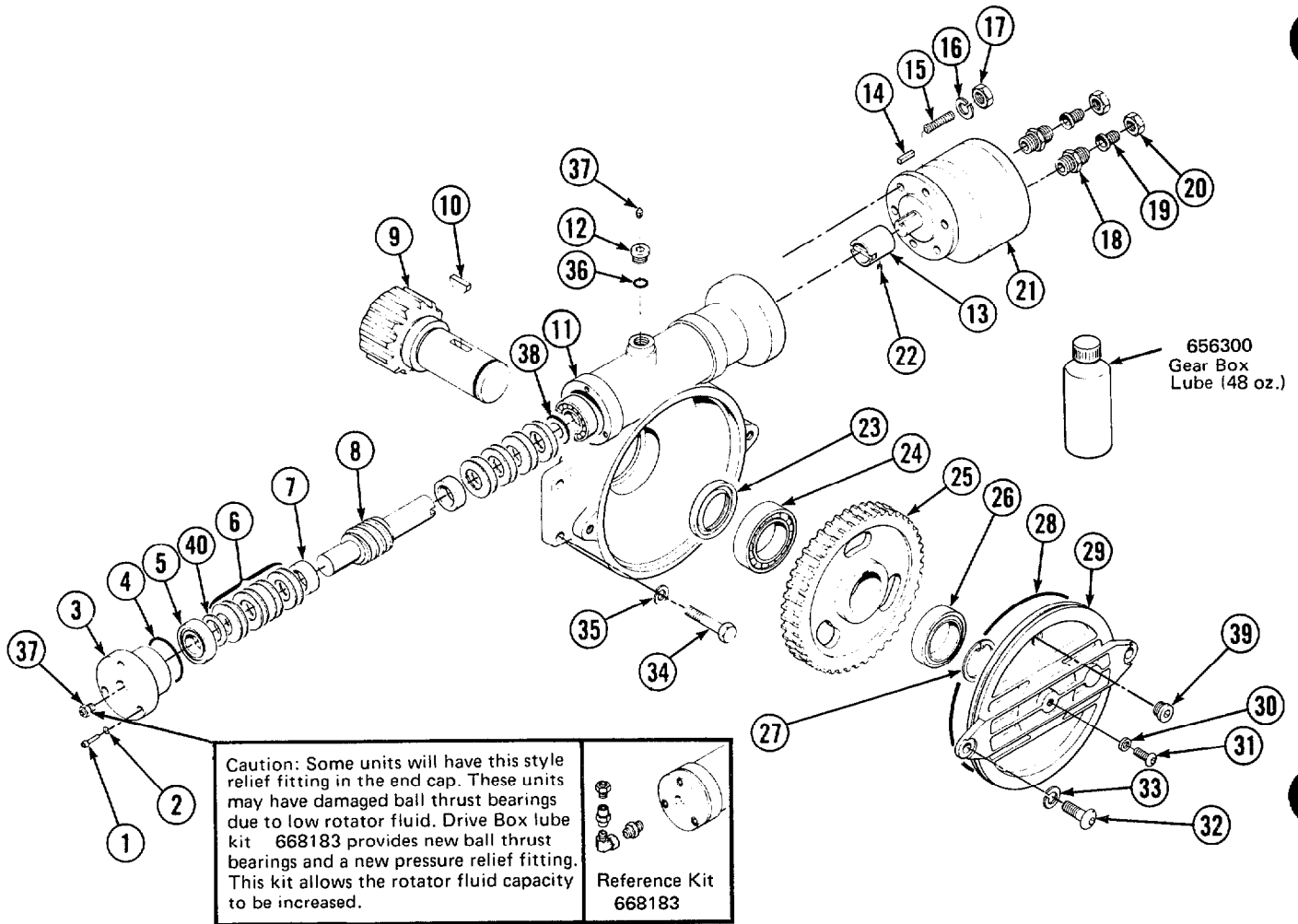
Revolving Conn.	655576	0	0
Valve Cartridge	661816	2	4
Cartridge Service Kit	656223	1	2
Shaft Service Kit	651876	1	2

# Rotator Frame

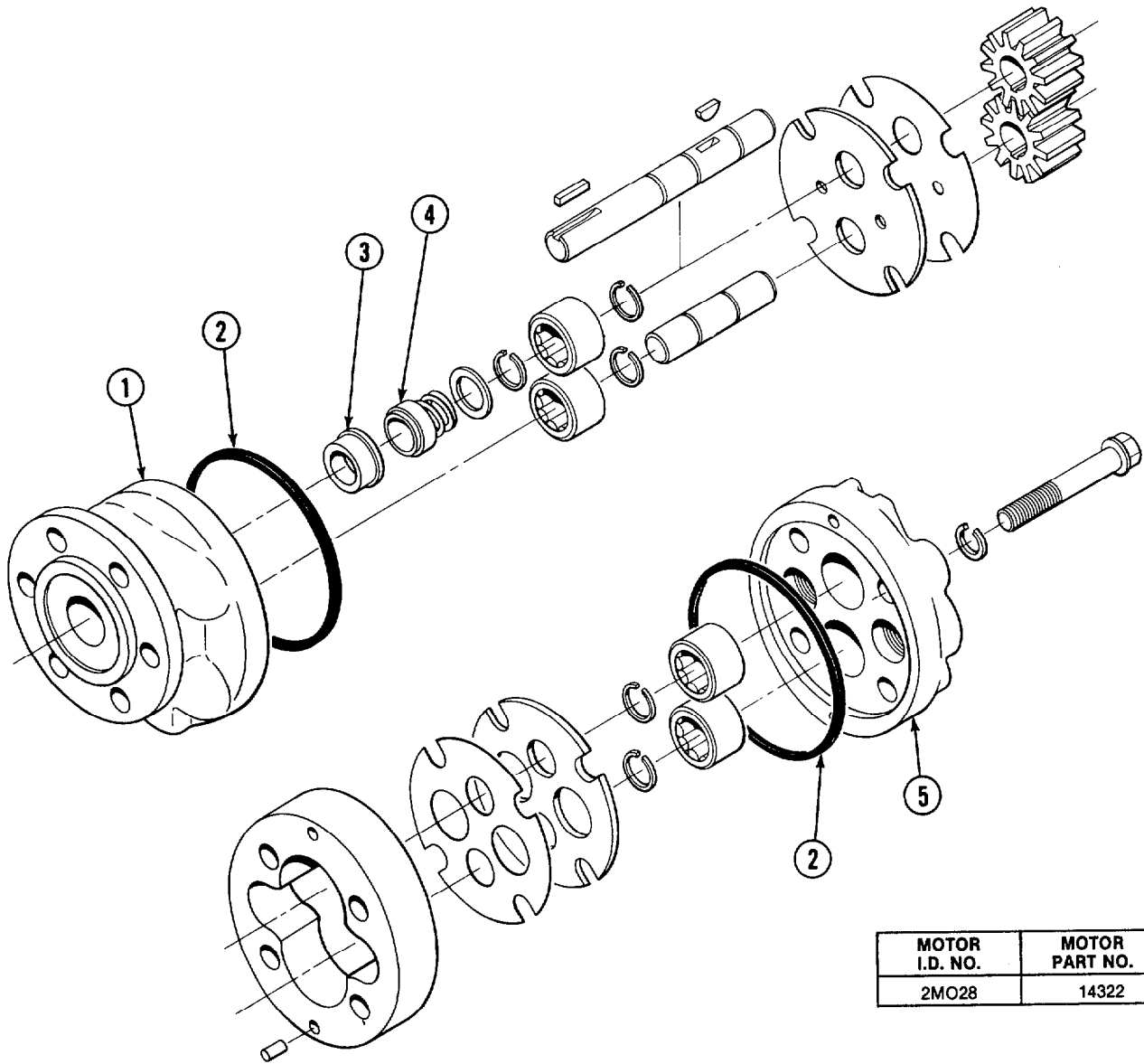


70D							
REF. NO.	QTY.	PART NO.	DESCRIPTION	REF. NO.	QTY.	PART NO.	DESCRIPTION
		662717	Revolving Frame Assembly	9	1	6605	Plug
1	1	663900	Revolving Frame	10	1	662728	Baseplate
2	1	625507	Seal	11	24	4508	Capscrew
3	1	662726	Bearing Assembly	12	24	6374	Lockwasher
4	1	625515	Seal	13	8	662220	Shim
5	1	631264	Seal	14	4	651375	Pin
6	20	6290	Lockwasher	15	4	651091	Eye Bolt
7	16	636408	Capscrew	16	4	651090	Shoulder Bolt
8	4	636407	Capscrew	17	12	628070	Bushing

# Rotator Drive Group



REF. NO.	QTY.	PART NO.	DESCRIPTION	REF. NO.	QTY.	PART NO.	DESCRIPTION
		662725	Drive Group w/2Mo 28 Motor	21	1	14322	Motor
		662727	Drive Assembly	22	1	5206	Setscrew
1	3	4441	Capscrew	23	1	662737	Seal
2	3	6370	Lockwasher	24	1	662739	Bearing
3	1	669211	End Cap	25	1	625430	Worm Gear
4	1	2787	O-Ring	26	1	13662	Bearing
5	2	13663	Ball Thrust Bearing	27	1	7204	Snap Ring
6	16	655645	Spring Washer	28	1	2833	O-Ring
7	2	662748	Small Spacer	29	1	668143	Cover
8	1	655597	Worm	30	1	603680	Seal
9	1	665571	Pinion	31	1	4874	Capscrew
10	1	13654	Woodruff Key	32	2	4884	Capscrew
11	1	662948	Gear Case	33	2	6292	Lockwasher
12	1	668154	Plug	34	4	3655	Capscrew
13	1	655598	Coupling Assembly	35	4	6290	Lockwasher
14	1	625434	Key	36	1	643375	O-Ring
15	6	610392	Stud	37	1	644010	Relief Fitting
16	6	6288	Lockwasher	38	2	667988	Thrust Washer
17	6	5702	Nut	39	1	609455	Plug
18	2	2313	Reducer				
19	2	2671	Adapter				
20	2	2618	Nut				



MOTOR I.D. NO.	MOTOR PART NO.
2MO28	14322

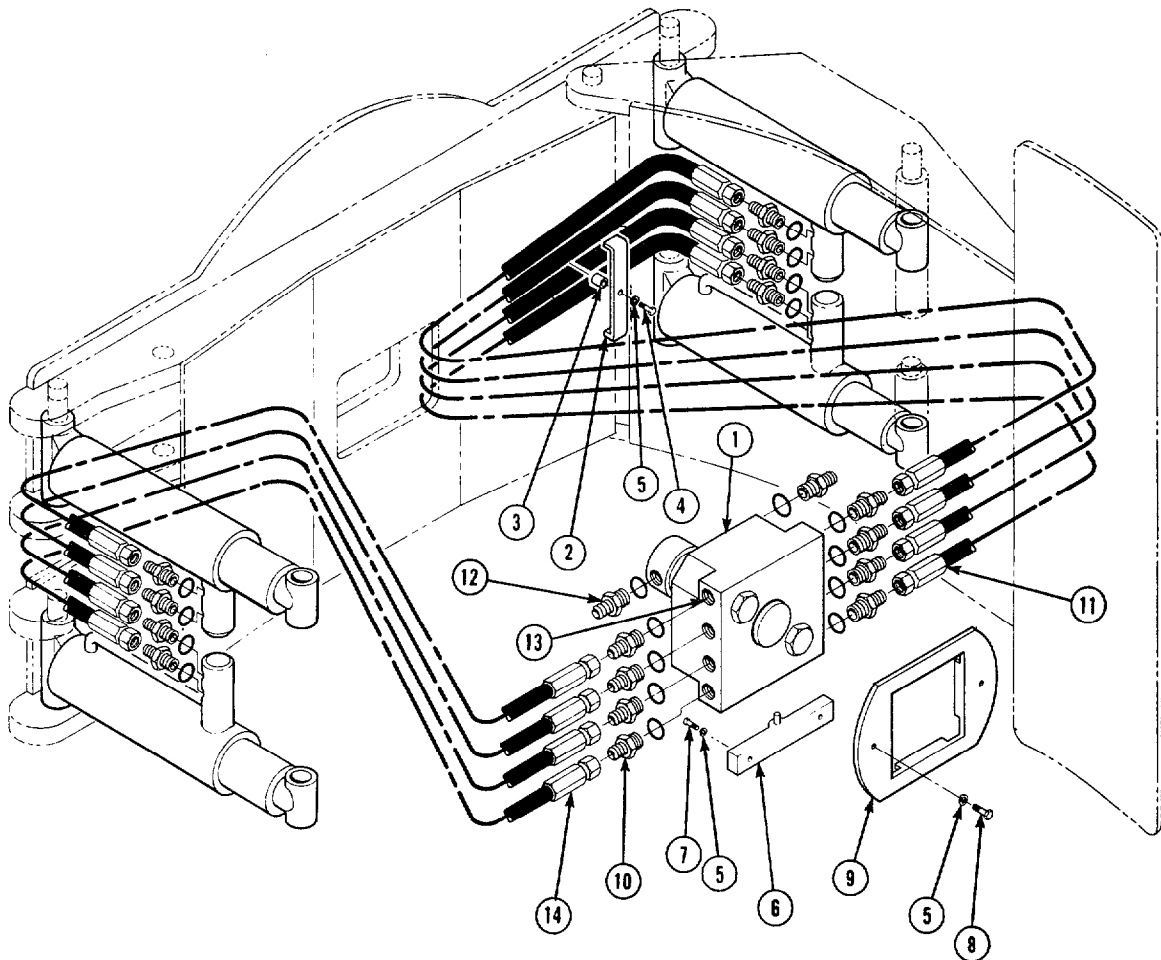
REF. NO.	QTY.	PART NO.	DESCRIPTION
1	1	660020	Adapter
2	2	•	O-Ring
3	1	•	Seal Seat
4	1	•	Seal Assembly
5	1	660024	Seal Kit

• Included in Seal Kit 660024

Cascade supplies replacement parts for the adapter, cover, and seal kit only. If additional parts are defective, the complete motor must be replaced.



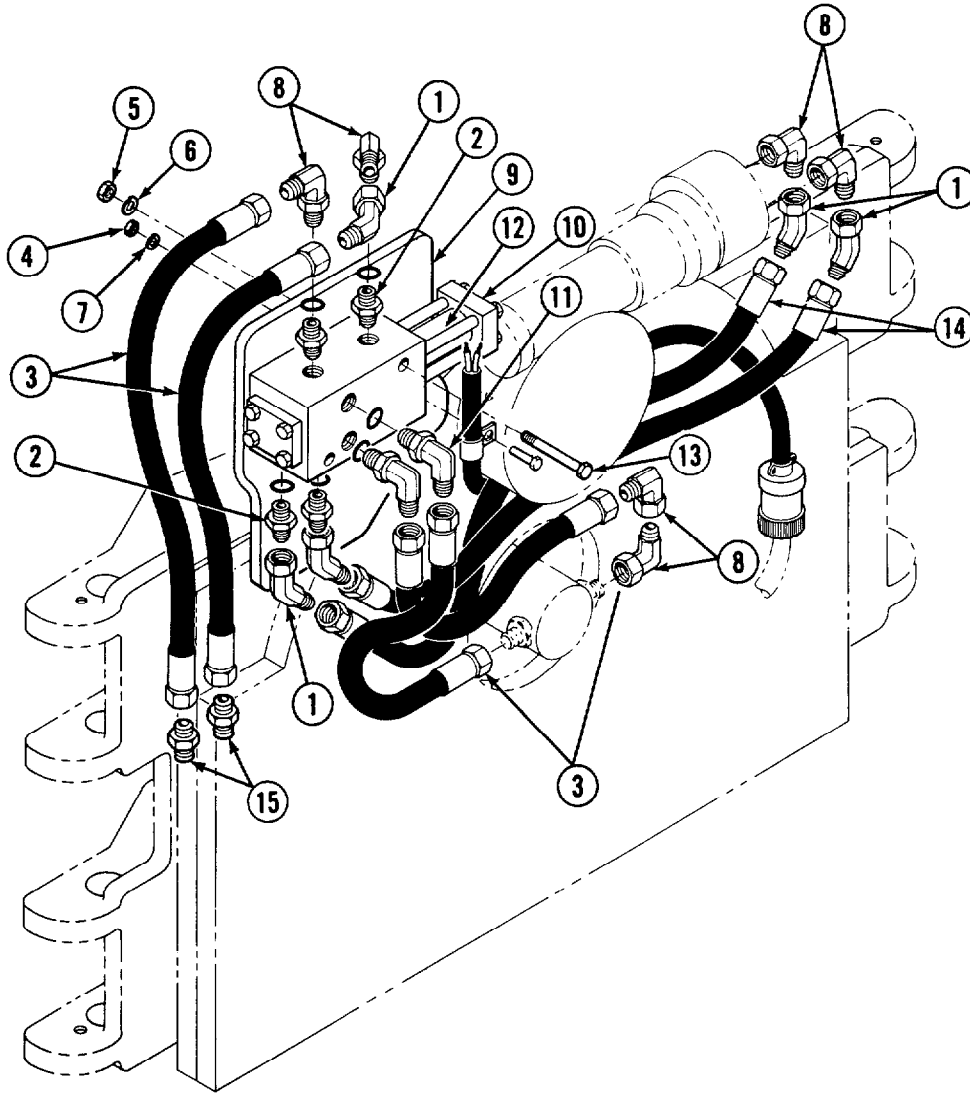
# Check Valve Group



REF. NO.	70D				DESCRIPTION
	Fixed Short Arm		Powered Short Arm		
	Qty.	Part No.	Qty.	Part No.	
		662719		662720	Check Valve Group
1	1	655576	1	655576	Revolving Connection
2	1	665114	2	665114	Clamp-Hose
3	1	665115	2	665115	Spacer
4	1	3609	2	3609	Capscrew
5	5	6288	6	6288	Lockwasher
6	1	662733	1	662733	Bar-Keeper
7	2	665255	2	665255	Capscrew
8	2	3601	2	3601	Capscrew
9	1	645599	1	645599	Retainer
10	8	604511	16	604511	Straight Connector
11	4	645618	4	645618	Hoses, Long Arm
12	2	601377	2	601377	Straight Connector
13	4	• 604510	—	—	Plug
14	—	—	4	645619	Hose, Short Arm

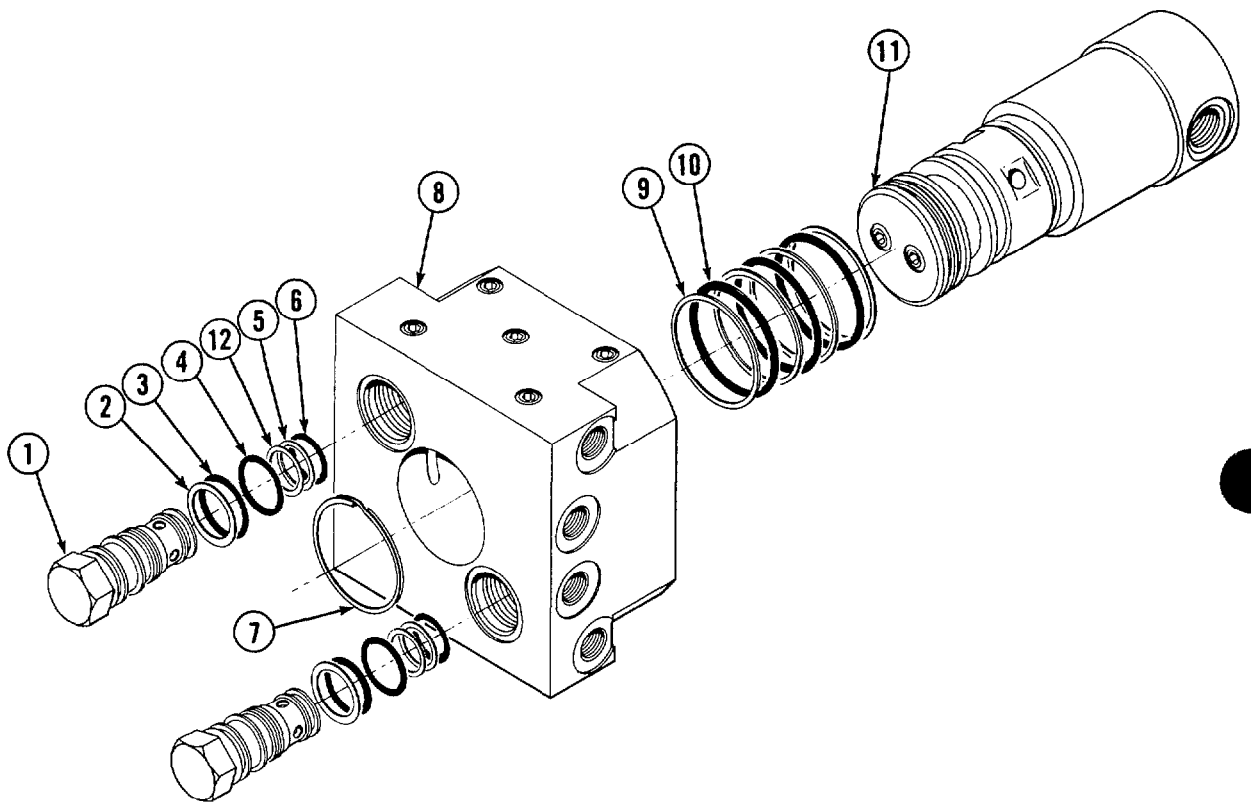
• Used in place of Hoses on Fixed Short Arm.

# Solenoid Adaption Group



70D			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		650428	Solenoid Adaption Group
1	5	605948	Elbow
2	4	605461	Connector
3	4	604937	Hose
4	1	5901	Nut
5	2	5900	Nut
6	2	6286	Lockwasher
7	1	6287	Lockwasher
8	6	605761	Elbow
9	1	631774	Plate
10	1	614089	Solenoid Valve - 12V
	1	614092	Solenoid Valve - 36V
	1	614093	Solenoid Valve - 48V
	1	614094	Solenoid Valve - 72V
11	2	651303	Elbow
12	1	611458	Coil - 12V
	1	611461	Coil - 36V
	1	614097	Coil - 48V
	1	614098	Coil - 72V
13	2	3563	Capscrew
14	2	604949	Hose
15	2	601377	Connector

# Revolving Connection



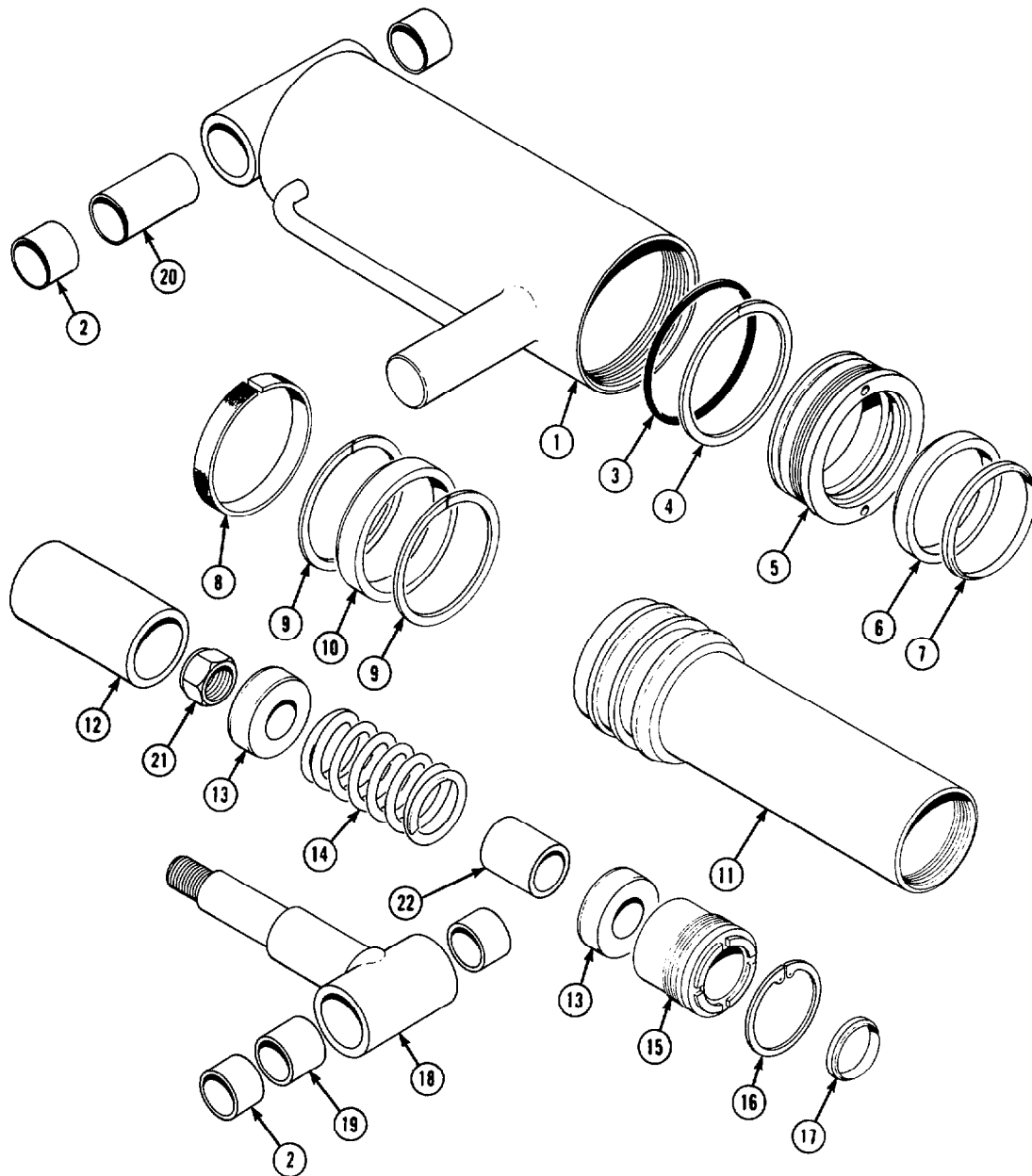
REF. NO.	QTY.	PART NO.	DESCRIPTION
		655576	Revolving Connection
1	2	661816	Valve Cartridge
•2	1	656035	Back-up Ring
•3	1	643374	O-Ring
•4	1	643373	O-Ring
•5	1	602733	Back-up Ring
•6	1	2708	O-Ring
7	1	7205	Snap Ring
8	1	659162	Body
••9	4	615128	Back-up Ring
••10	3	645592	O-Ring
11	1	662024	Shaft
•12	2	668927	Back-up Ring
		651876	Service Kit, Shaft Seals
		656223	Service Kit, Cartridge Seals

•1 Included in Cartridge Seal Service Kit 656223

••1 Included in Shaft Seal Service Kit 651876



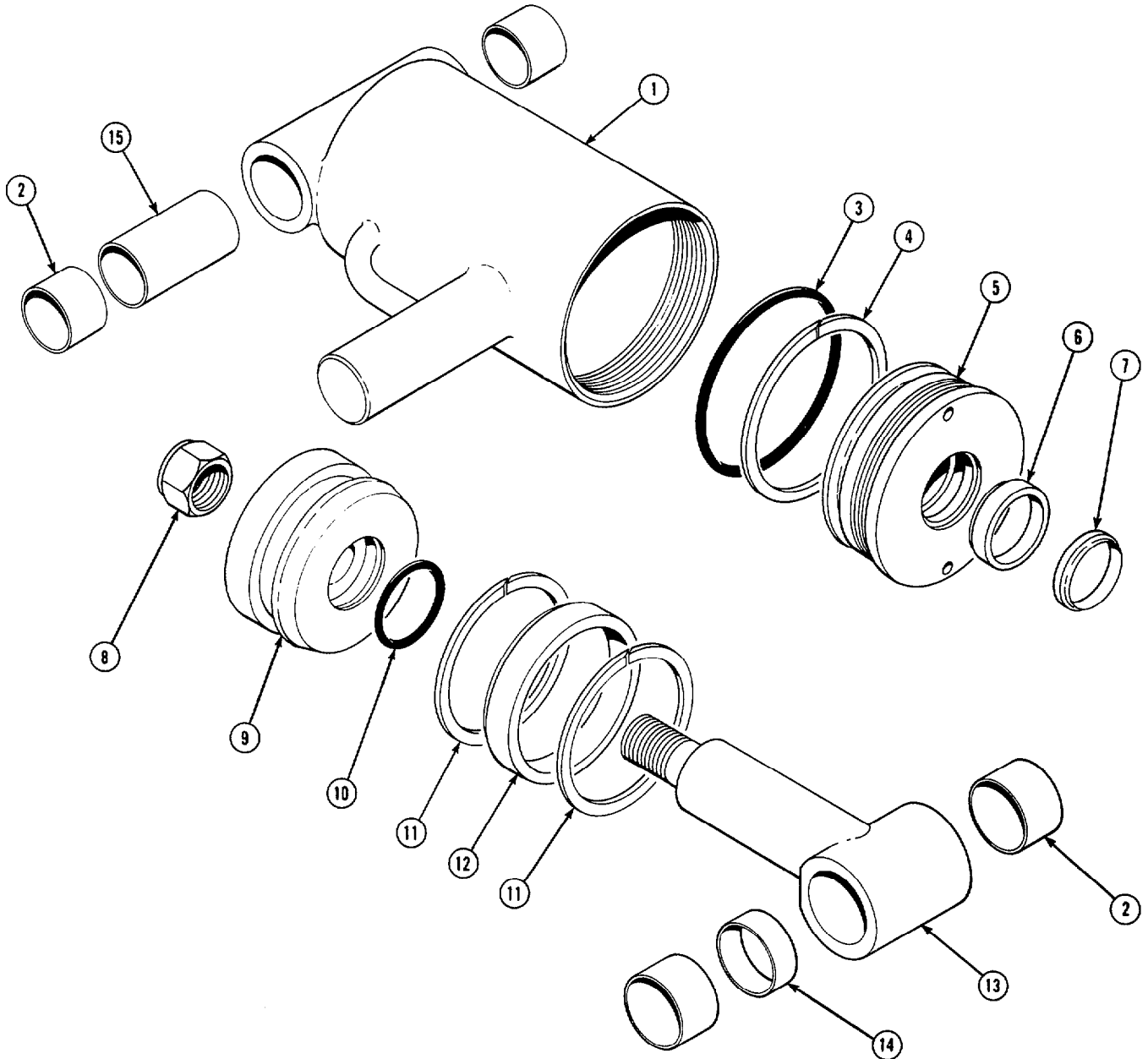
# Cylinder Assembly Long Arm



70D							
REF. NO.	QTY.	PART NO.	DESCRIPTION	REF. NO.	QTY.	PART NO.	DESCRIPTION
		660036	Cylinder Assembly	12	1	660043	Spacer
1	1	660037	Shell	13	2	660044	Piston
2	4	628070	Bushing	14	1	645574	Spring
• 3	1	2809	O-Ring	15	1	660048	Retainer
• 4	1	615152	Back-up Ring	16	1	659690	Snap Ring
5	1	660042	Retainer	• 17	1	644691	Wiper Ring
• 6	1	641480	Seal	18	1	660046	Rod
• 7	1	636861	Wiper Ring	19	1	660069	Sleeve
• 8	1	636956	Bearing	20	1	660062	Sleeve
• 9	2	636692	Nylon Ring	21	1	5884	Nut
• 10	1	641531	Seal	22	1	660045	Spacer
11	1	660039	Plunger Shell			660049	Kit, Cylinder Seal

• Included in Cylinder Seal Kit 660049

# Cylinder Assembly Short Arm

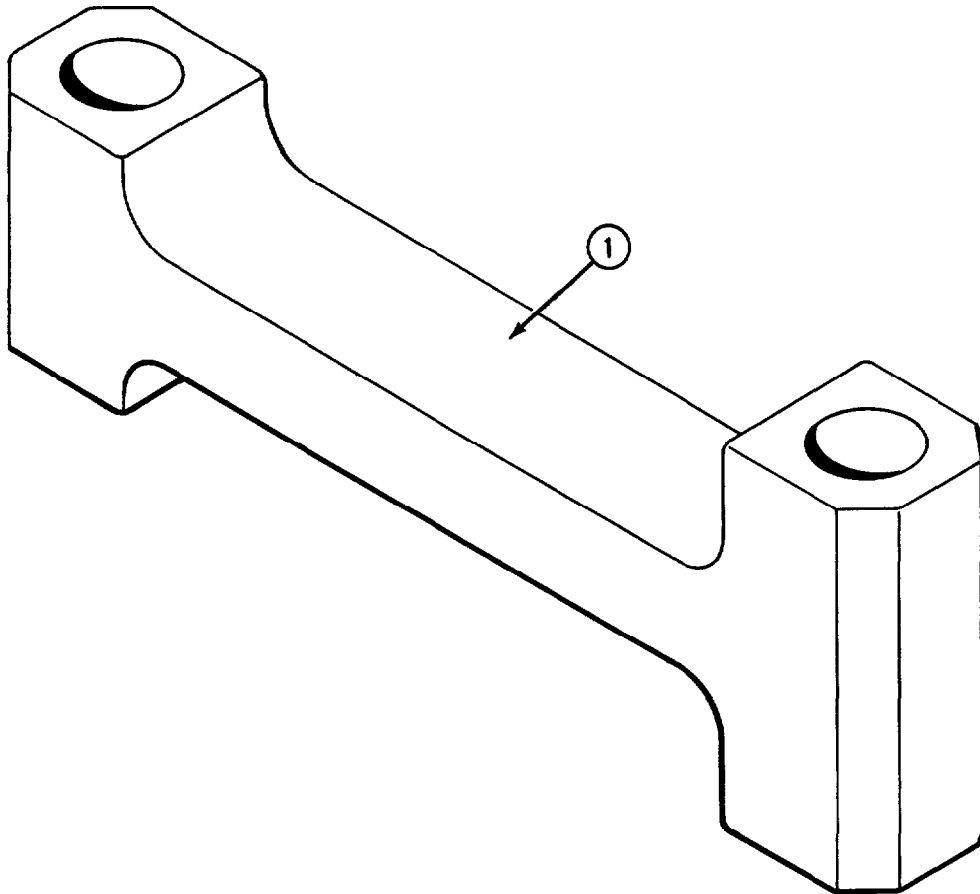


<b>70D</b>			
REF. NO.	QTY.	PART NO.	DESCRIPTION
	1	663719	Cylinder Assembly
1	1	660074	Shell
2	4	628070	Bushing
• 3	1	2805	O-Ring
• 4	1	615148	Ring, Back-up
5	1	663751	Retainer
• 6	1	662455	Seal, U-Cup
• 7	1	654718	Ring, Wiper
8	1	663642	Nut
9	1	663750	Piston
• 10	1	2719	O-Ring
• 11	2	660953	Ring, Nylon
• 12	1	662464	Seal, U-Cup
13	1	663752	Rod
14	1	660069	Sleeve
15	1	660062	Bushing

• Included in Seal Kit 663761

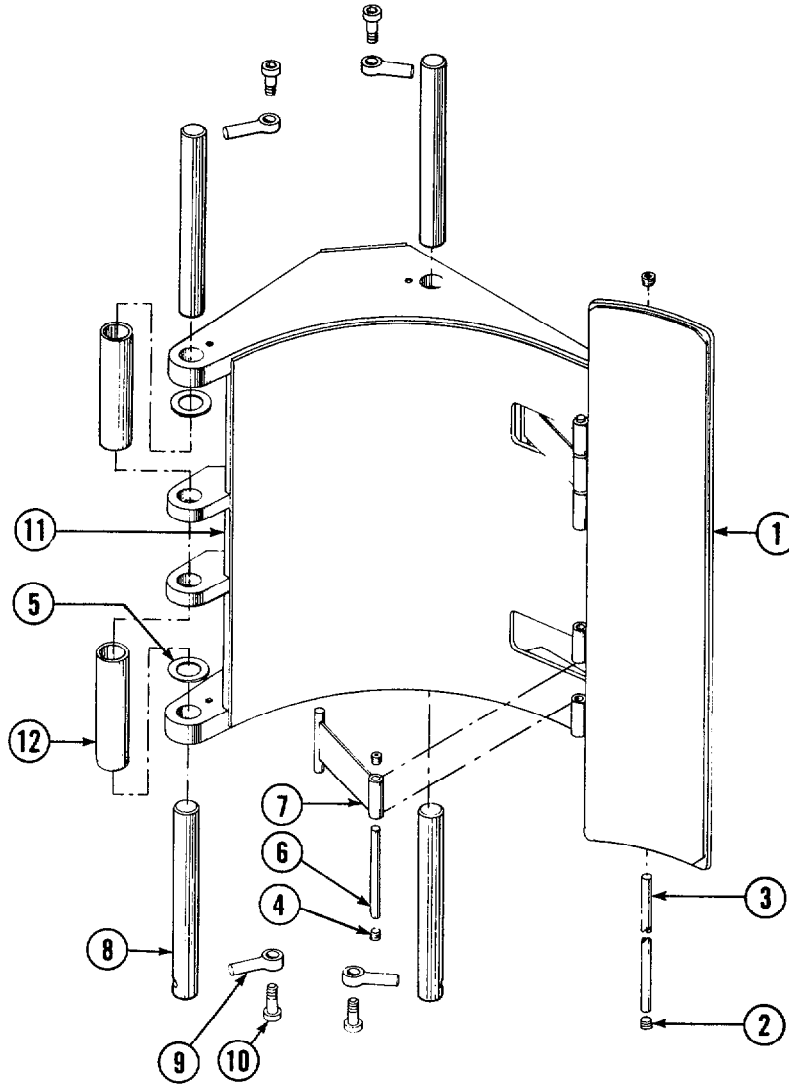


# Rod Assembly Fixed Short Arm No Articulation



REF. NO.	70D	DESCRIPTION
	PART NO.	
1	645645	Rod

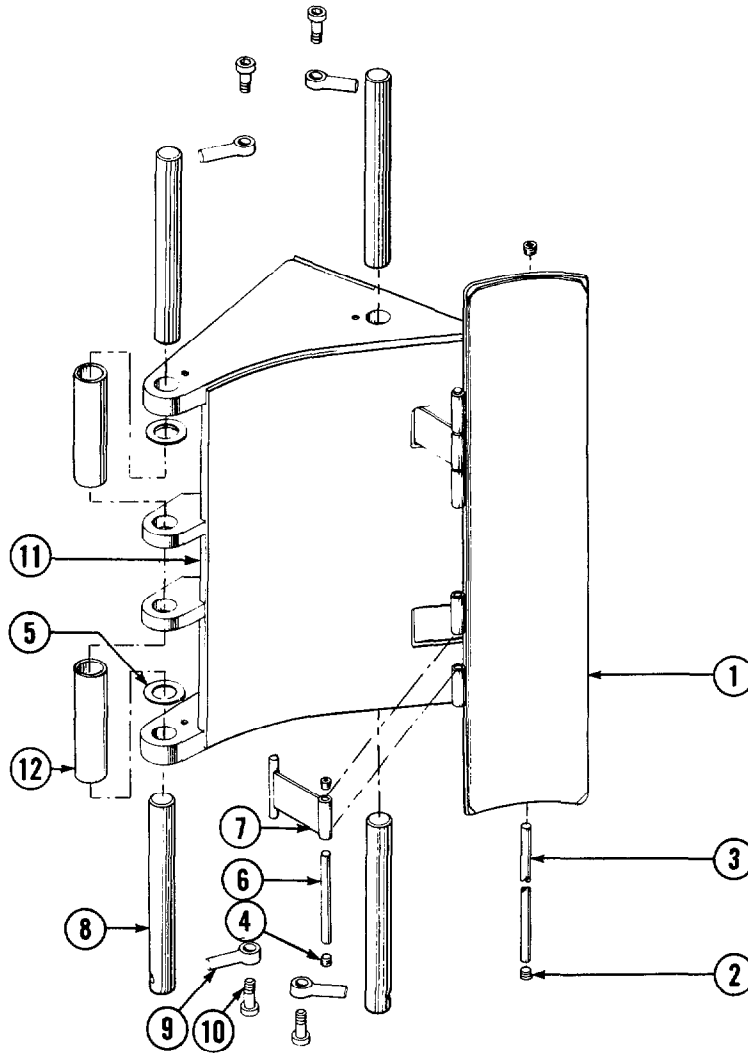
# Long Arm



70D			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		663902	Arm Assembly
1	1	● 648701	Contact Pad – Algrip
2	2	647175	Plug
3	1	648708	Pin
4	4	651113	Plug
5	2	662220	Shim
6	2	650846	Pin
7	2	645494	Link
8	4	663904	Pin, Pivot
9	4	651091	Eye Bolt
10	4	651090	Bolt, Shoulder
11	1	663903	Arm
12	4	663840	Tube-Spacer

● Replacement Algrip Contact Surface 645502

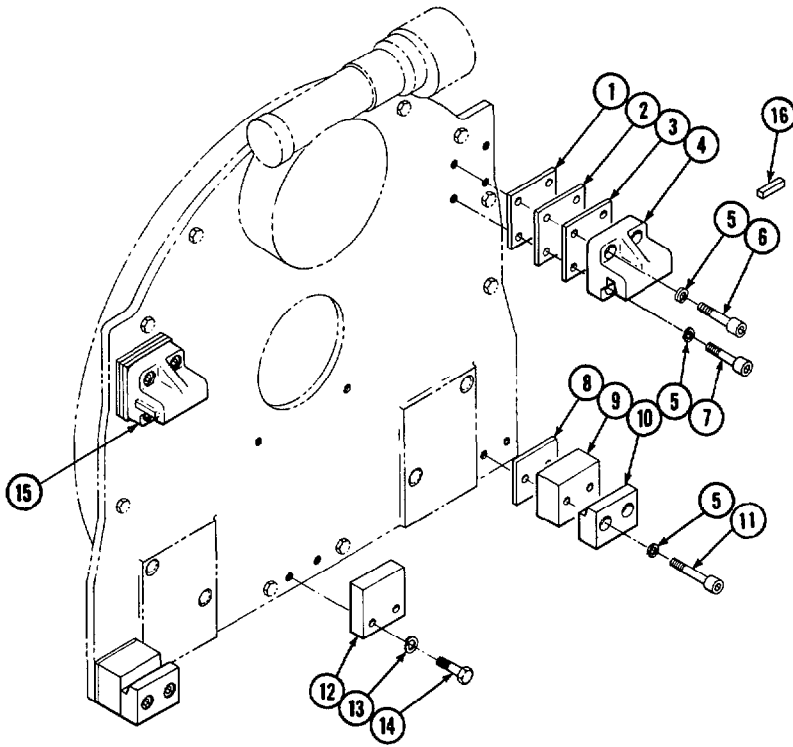
# Short Arm



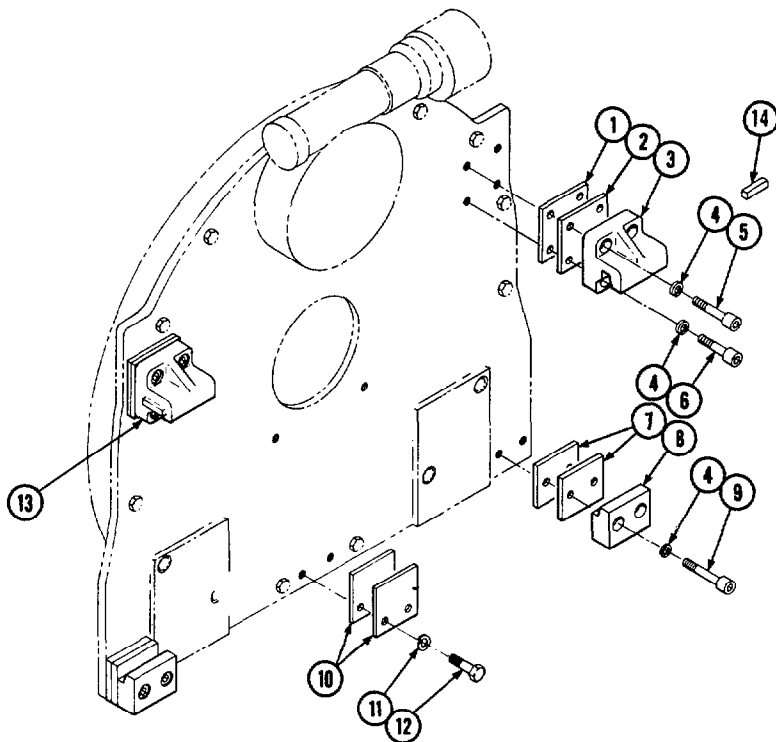
70D				
REF. NO.	QTY.	Fixed Arm	Powered Arm	DESCRIPTION
		PART NO.	PART NO.	
		663912		Arm Assembly – Fixed
			663905	Arm Assembly – Powered
1	1	● 648701	● 648701	Contact Plate – Algrip
2	2	647175	647175	Plug
3	1	648708	648708	Pin
4	4	651113	651113	Plug
5	2	662220	662220	Shim
6	2	650846	650846	Pin
7	2	649948	645515	Link
8	4	663904	663904	Pivot Pin
9	4	651091	651091	Eye Bolt
10	4	651090	651090	Shoulder Bolt
11	1	645478	645478	Arm
12	4	663840	663840	Tube - Spacer

● Replacement Algrip Contact Surface 645502

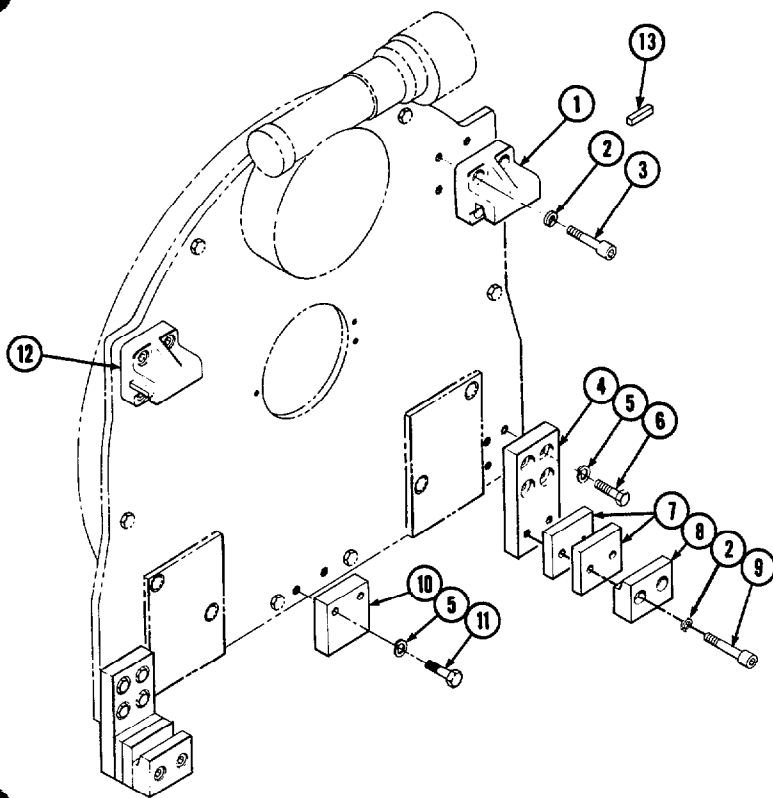
# Mounting Group



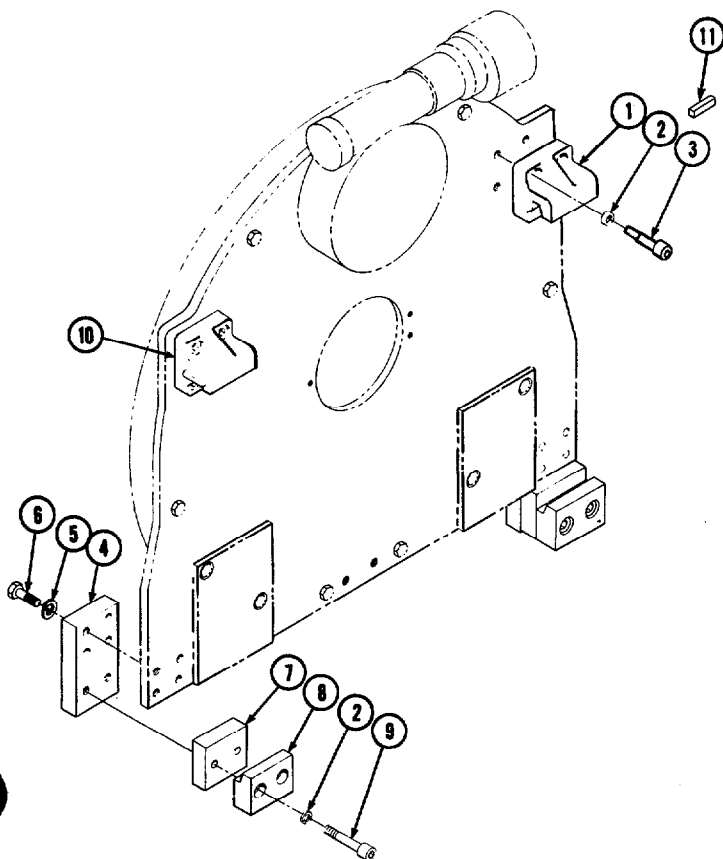
70D - CLASS III 0°			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		662722	Mounting Group
1	2	650089	Spacer
2	2	661496	Spacer
3	2	630519	Spacer
4	1	625452	Upper Hook R.H.
5	12	6447	Lockwasher
6	4	607089	Capscrew
7	4	607088	Capscrew
8	2	640499	Spacer
9	2	632904	Spacer
10	2	622126	Hook
11	4	607095	Capscrew
12	1	662745	Spacer
13	2	6292	Lockwasher
14	2	3714	Capscrew
15	1	662743	Upper Hook L.H.
16	1	669344	Stop Block Kit



70D - CLASS III 4°			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		662721	Mounting Group
1	2	630519	Spacer
2	2	650089	Spacer
3	1	625452	Upper Hook R.H.
4	12	6447	Lockwasher
5	4	607087	Capscrew
6	4	607086	Capscrew
7	4	627369	Spacer
8	2	622126	Hook
9	4	607089	Capscrew
10	2	630520	Spacer
11	2	6292	Lockwasher
12	2	3709	Capscrew
13	1	662743	Upper Hook L.H.
14	1	669344	Stop Block Kit

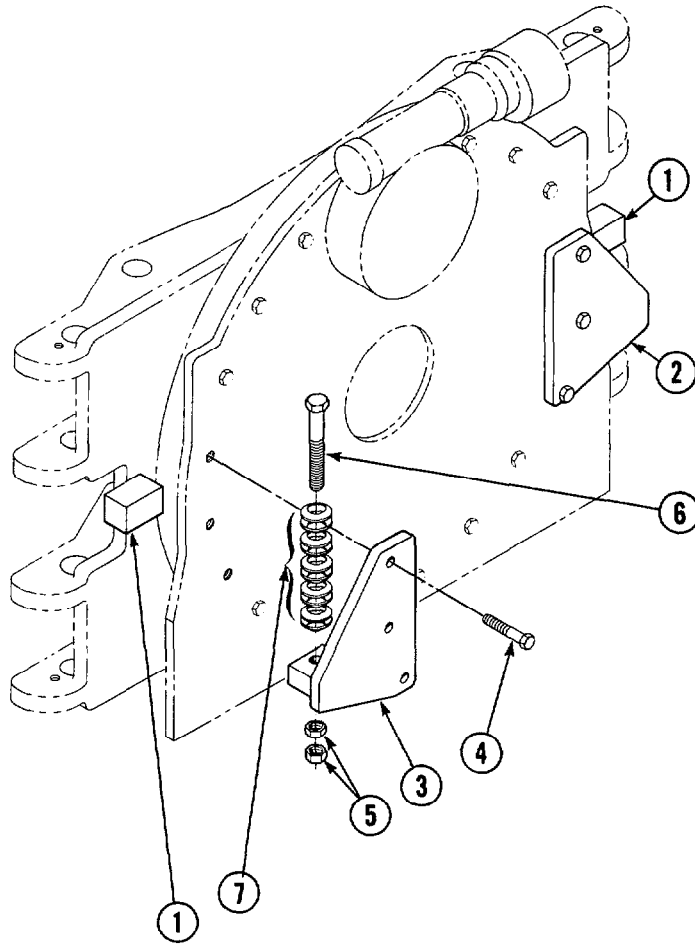


70D - CLASS IV 0°			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		662724	Mounting Group
1	1	650093	Upper Hook R.H.
2	12	6448	Lockwasher
3	8	607103	Capscrew
4	2	662749	Extension
5	10	6292	Lockwasher
6	8	638601	Capscrew
7	4	659582	Spacer
8	2	638750	Hook
9	4	607109	Capscrew
10	1	650094	Spacer
11	2	3713	Capscrew
12	1	666019	Upper Hook L.H.
13	1	669344	Stop Block Kit



70D - CLASS IV 4°			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		662723	Mounting Group
1	1	650093	Upper Hook R.H.
2	12	6448	Lockwasher
3	8	607103	Capscrew
4	2	662749	Extension
5	8	6292	Lockwasher
6	8	638601	Capscrew
7	2	662750	Spacer
8	2	638750	Hook
9	4	607110	Capscrew
10	1	666019	Upper Hook L.H.
11	1	669344	Stop Block Kit

# 180° Rotator Stop Group



70D			
REF. NO.	QTY.	PART NO.	DESCRIPTION
		664772	Stop Group
1	1	665251	Stop Block
2	1	665259	Stop R.H.
3	1	665258	Stop L.H.
4	6	633523	Capscrew
5	4	5933	Nuts
6	2	633711	Capscrew
7	40	662296	Spring Washer





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ASSOCIATION  
OF SERVICE  
MANAGERS