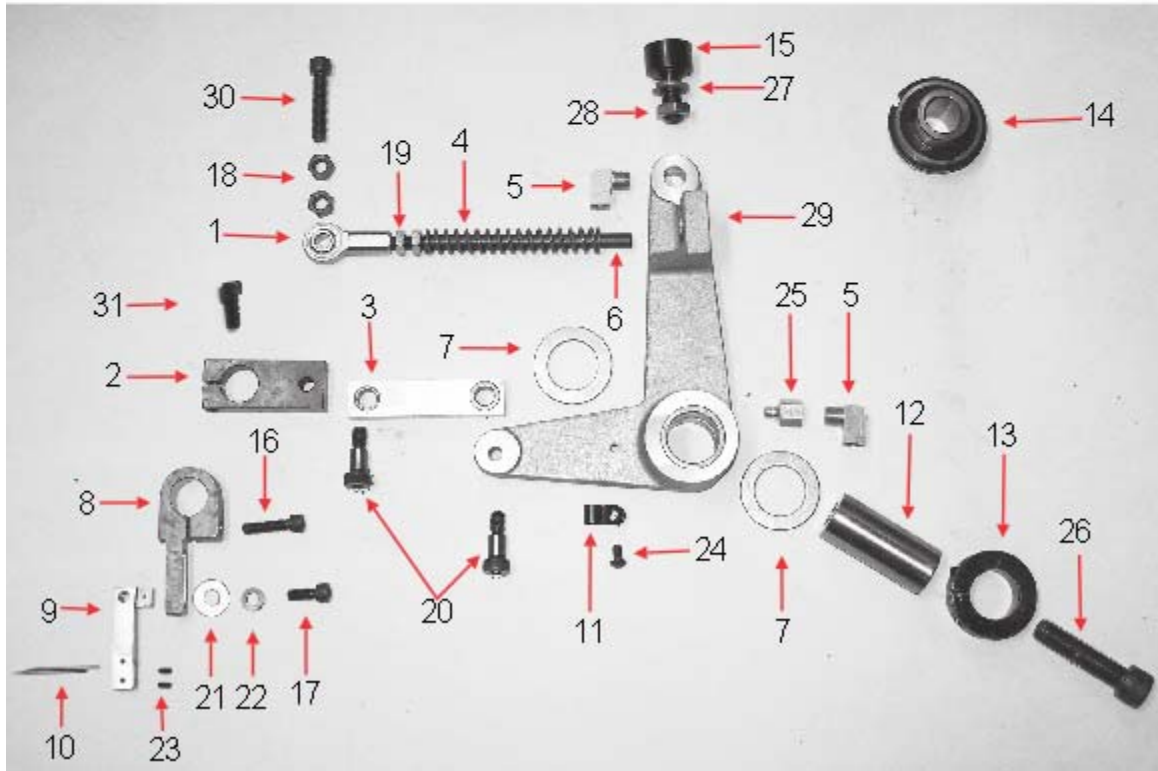
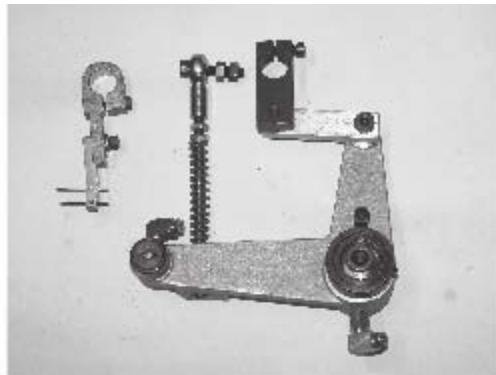


SECTION 1-2

# MSL HOPPER



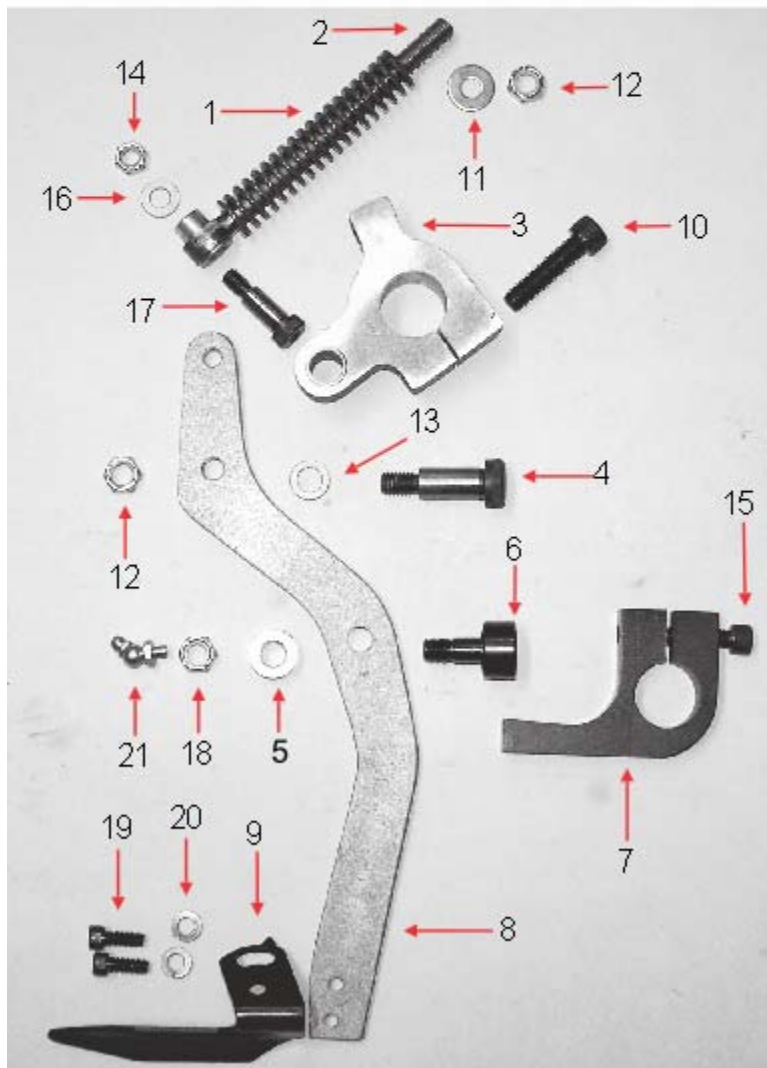
# NEEDLE ASSEMBLY



**NEEDLE ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 5020	ROD END	1
2	KMS 2093	NEEDLE BAR ARM	1
3	KMS 2045	NEEDLE BAR LINK	1
4	KMS 5024R	SPRING	1
5	KMS 0041	ELBOW FITTING	2
6	KMS 5023	SPRING ROD	1
7	KMS 2127	THRUST WASHER	2
8	KMS 2079	NEEDLE SUPPORT	1
	KMS 1817	NEEDLE SCALE	
9	KMS 1031	NEEDLE CARRIER	1
10	KMS 1032	PILE SUPPORT NEEDLE	2
11	KMS 0086	NYLON LOOP STRAP	1
12	KMS 1075	STUB SHAFT	1
13	KMS 5028	COLLAR	1
14	KMS 2094	NEEDLE SHAFT BEARING	2
15	KMS 1015	1" CAM FOLLOWER	1
16	H-187	SOCKET HD CAPSCREW	1
17	H-001	SOCKET HD CAPSCREW	1
18	H-169	HEX JAM NUT	2
19	H-126	JAM NUT	2
20	H-175	SHOULDER BOLT	2
21	H-150	FLAT WASHER	1
22	H-120	LOCK WASHER	1
23	H-242	SET SCREW	2
24	H-241	BUTTON HD CAPSCREW	1
25	ET 185	ADAPTOR	1
26	H-123	SOCKET HD CAPSCREW	1
27	H-153	LOCK WASHER	1
28	H-152	JAM NUT	1
29	KMS 2102	NEEDLE CAM LEVER	1
30	H-167	SOCKET HD CAPSCREW	1
31	H-250	SOCKET HD CAPSCREW	1

# LIFT HOOK ASSEMBLY

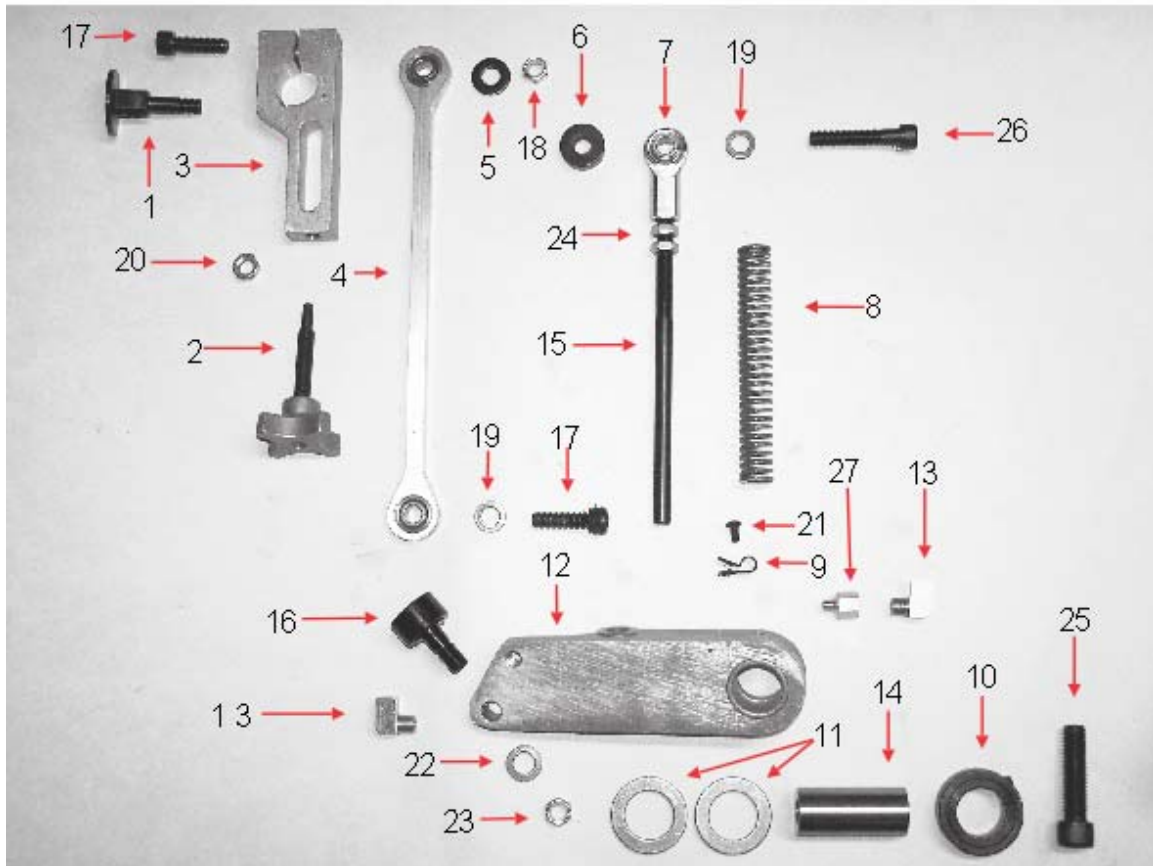
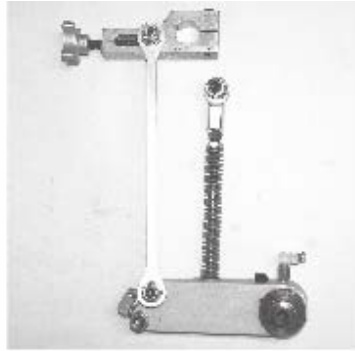


**LIFT HOOK ASSEMBLY**

Sheet 1 of 2

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2038	HELICAL SPRING	1
2	KMS 1056	ROD END	1
3	KMS 1050	LIFT HOOK LEVER ASSEMBLY	1
4	KMS 2039	SHOULDER BOLT	1
5	KMS 2121	COLLAR	1
6	KMS 1077	CAM FOLLOWER 7/8"	1
7	KMS 0150	LIFT HOOK BUMPER CAM	1
8	KMS 1022	LIFT HOOK LEG	1
	KMS 1816	LIFT HOOK LEG SCALE	1
9	KMS 2037	LIFT HOOK FOOT	1
10	H-114	SOCKET HD CAPSCREW	1
11	H-127	FLAT WASHER	1
12	H-170	NYLON JAM NUT	1
13	H-245	THRUST WASHER	1
14	H-163	NYLON JAM NUT	1
15	H-166	SOCKET HD CAPSCREW	1
16	H-239	THRUST WASHER	1
17	H-244	SHOULDER BOLT	1
18	H-172	NYLON JAM NUT	1
19	H-001	SOCKET HD CAPSCREW	2
20	H-120	LOCK WASHER	2
21	H-178	45° GREASE FITTING	1

# LIFT HOOK ASSEMBLY



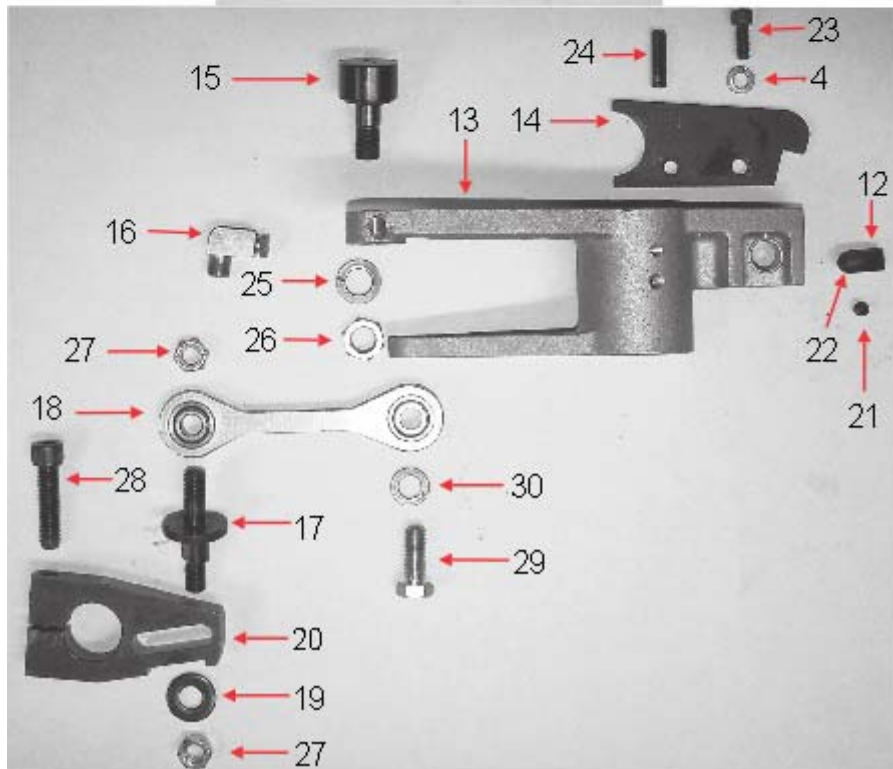
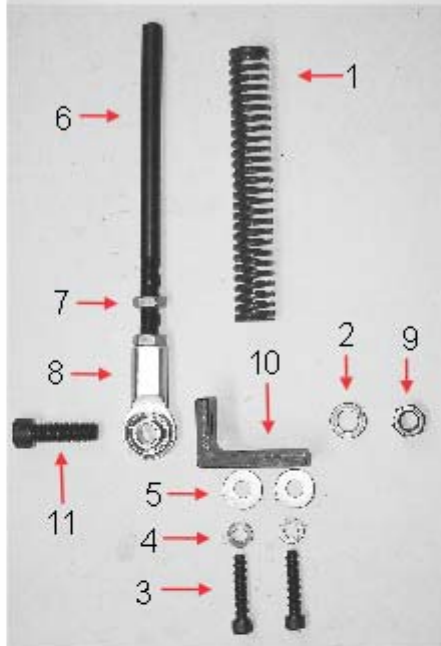
**LIFT HOOK ASSEMBLY**

Sheet 2 of 2

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 1055	OPERATING LEVER STUD	1
2	KMS 2124	ADJUST KNOB ASSEMBLY	1
		INCLUDES	
	KMS 1053	HAND KNOB	1
	KMS 1054	ADJUSTING SCREW	1
	H-215	ROLL PIN	1
3	KMS 1046	OPERATING LEVER	1
	KMS 1815	LIFT HOOK STROKE SCALE	
4	KMS 2081	LIFT HOOK ROD END	1
		INCLUDES	
	KMS 2009	BEARING	2
5	KMS 2058	FLAT WASHER	1
6	KMS 5002	SPACER	1
7	KMS 2125	ROD END	1
8	KMS 1017	HELICAL SPRING (GREEN)	1
9	KMS 0086	NYLON LOOP STRAP	1
10	KMS 2100	LOCKING COLLAR	1
11	KMS 2127	THRUST WASHER	2
12	KMS 1049	LIFT HOOK LEVER ASSEMBLY	1
13	KMS 0041	90° GREASE FITTING	2
14	KMS 1075	STUB SHAFT	1
15	KMS 1057	SPRING GUIDE	1
16	KMS 1076	CAM FOLLOWER 1 1/8"	1
17	H-122	SOCKET HD CAPSCREW	2
18	H-246	NYLON LOCK NUT	1
19	H-115	LOCK WASHER	1
20	H-203	JAM NUT	1
21	H-241	BUTTON HD CAPSCREW	1
22	H-153	LOCK WASHER	1
23	H-152	JAM NUT	1
24	H-141	JAM NUT	2
25	H-123	SOCKET HD CAPSCREW	1
26	H-106	SOCKET HD CAPSCREW	1
27	ET 185	ADAPTOR	1



### SUCKER SYSTEM





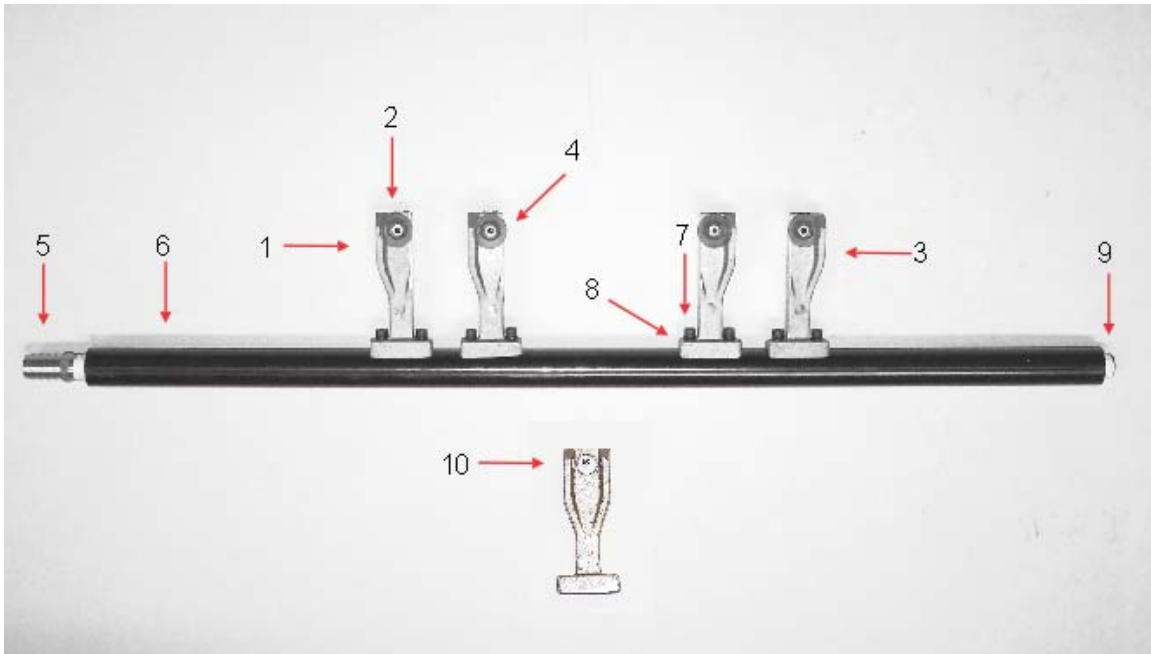
**SUCKER SYSTEM**

Sheet 1 of 2

**PART**

<b>ITEM</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 1017B	HELICAL SPRING (BLUE)	1
2	H-115	LOCK WASHER	1
3	H-113	SOCKET HD CAPSCREW	2
4	H-120	LOCK WASHER	3
5	H-150	FLAT WASHER	2
6	KMS 1057	SPRING GUIDE	1
7	H-141	JAM NUT	2
8	KMS 1047	ROD END	1
9	H-147	HEX NUT	1
10	KMS 2435	SPRING MOUNTING BRACKET	1
11	H-122	SOCKET HD CAPSCREW	1
12	KMS 0086	NYLON LOOP STRAP	1
13	KMS 1090	SUCKER LEVER	1
14	KMS 3110	INHIBIT LEVER	1
15	KMS 1015	CAM FOLLOWER 1"	1
16	KMS 0041	ELBOW FITTING	1
17	KMS 2115	SUCKER ADJUSTING STUD	1
18	KMS 2024	SUCKER BAR ROD END	1
	INCLUDES		
	KMS 2009	BEARING	2
19	KMS 2058	FLAT WASHER	1
20	KMS 1052	SUCKER OPERATING LEVER	1
	KMS 1818	SUCKER BAR STROKE SCALE	
21	H-108	SET SCREW	1
22	H-183	BUTTON HD CAPSCREW	1
23	H-001	SOCKET HD CAPSCREW	1
24	H-160	ROLL PIN	1
25	H-153	LOCK WASHER	1
26	H-152	JAM NUT	1
27	H-189	NYLON LOCK NUT	2
28	H-114	SOCKET HD CAPSCREW	1
29	H-232	HEX HEAD BOLT	1
30	H-146	LOCK WASHER	1
	NOT PICTURED		
	KMS 2127	THRUST WASHER	4
	KMS 5028	COLLAR	1

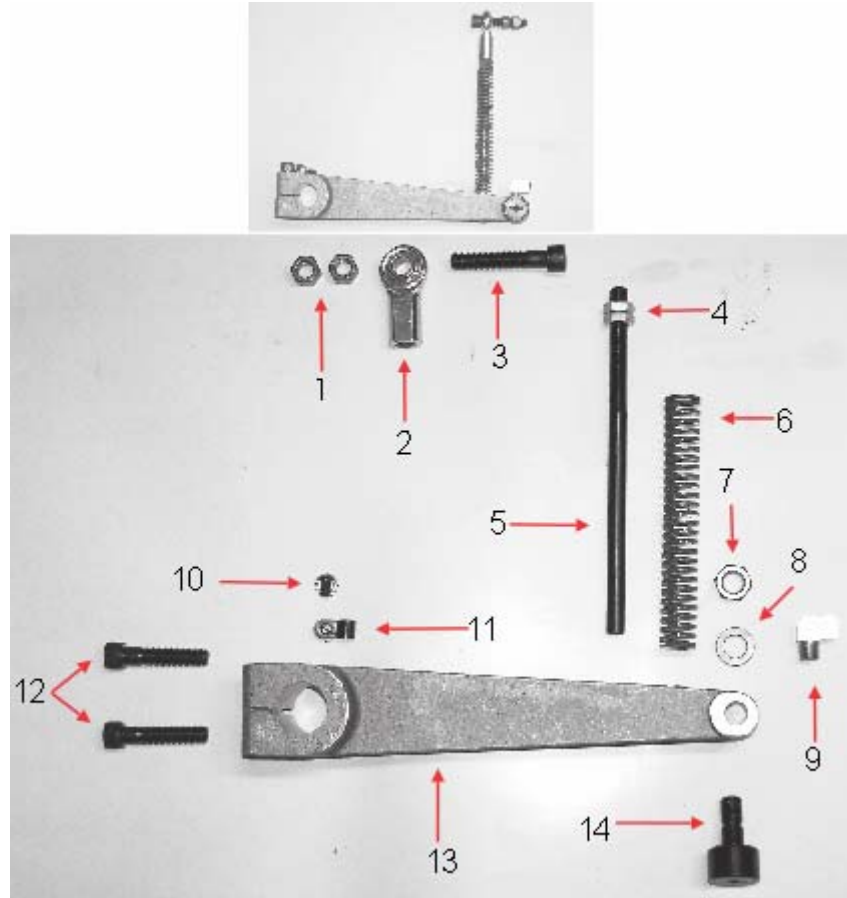
# SUCKER SYSTEM



Sheet 2 of 2  
PART

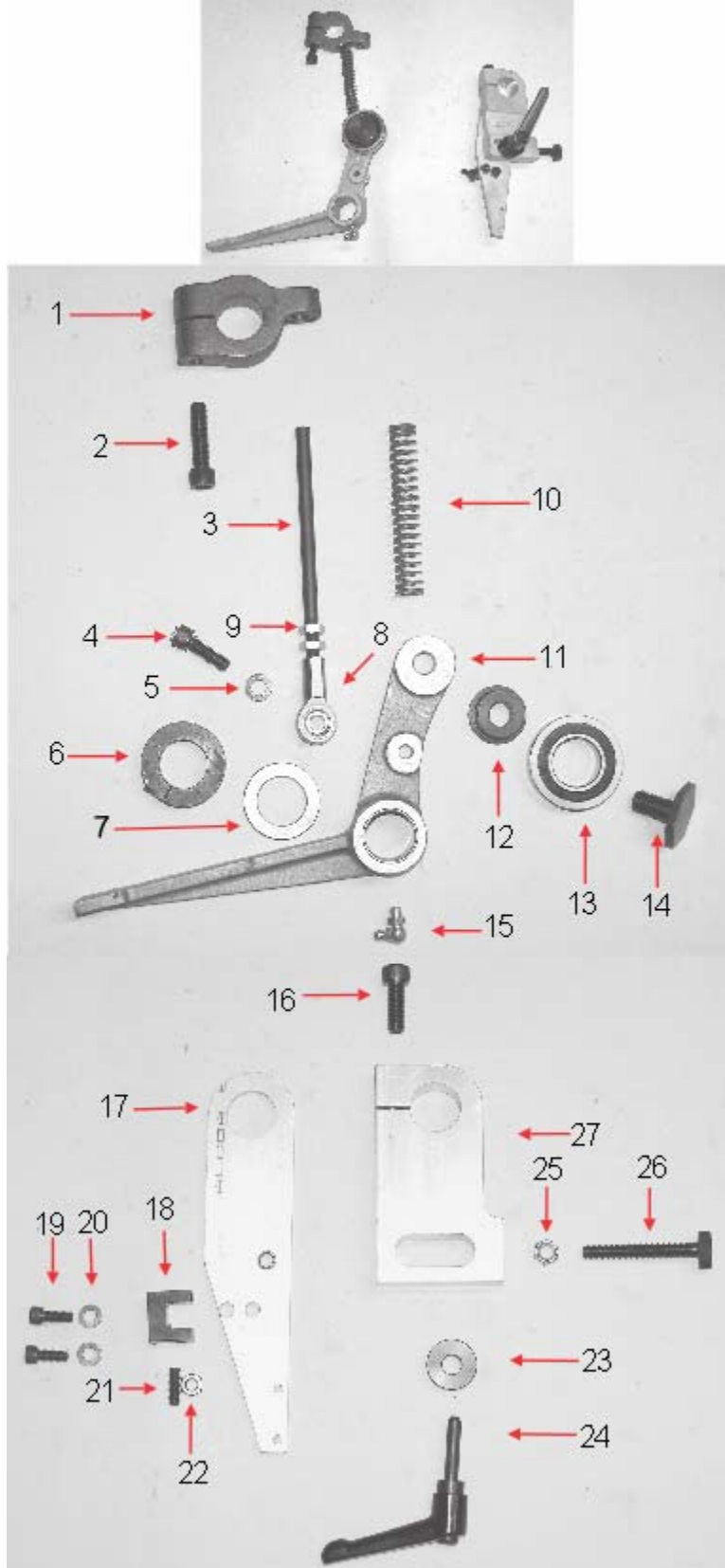
ITEM	NUMBER	DESCRIPTION	QUANTITY
1	KMS 2003	SUCKER STEM (LEFTHAND)	2
2	H-243	SET SCREW	4
3	KMS 2002	SUCKER STEM (RIGHTHAND)	2
4	KMS 36B	GREEN SUCKER	4
5	KMS 2116	HOSE NIPPLE	1
6	KMS 2027	SUCKER TUBE	1
7	H-207	SOCKET HD CAPSCREW	8
8	H-136	LOCKWASHER	8
9	H-134	NPT PIPE PLUGS	1
10	KMS 1024	SUCKER STEM (FULL)	1

# CALIPER



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	H-147	HEX NUT	2
2	KMS 1047	ROD END	1
3	H-106	SOCKET HD CAPSCREW	1
4	H-141	JAM NUT	2
5	KMS 1057	SPRING GUIDE	1
6	KMS 1017	SPRING (GREEN)	1
7	H-152	JAM NUT	1
8	H-153	LOCK WASHER	1
9	KMS 0041	ELBOW FITTING	1
10	H-241	BUTTON HD CAPSCREW	1
11	KMS 0086	NYLON LOOP STRAP	1
12	H-139	SOCKET HD CAPSCREW	2
13	KMS 1030	CALIPER OPERATING LEVER	1
14	KMS 1015S	CAM FOLLOWER 1"-SEALED	1

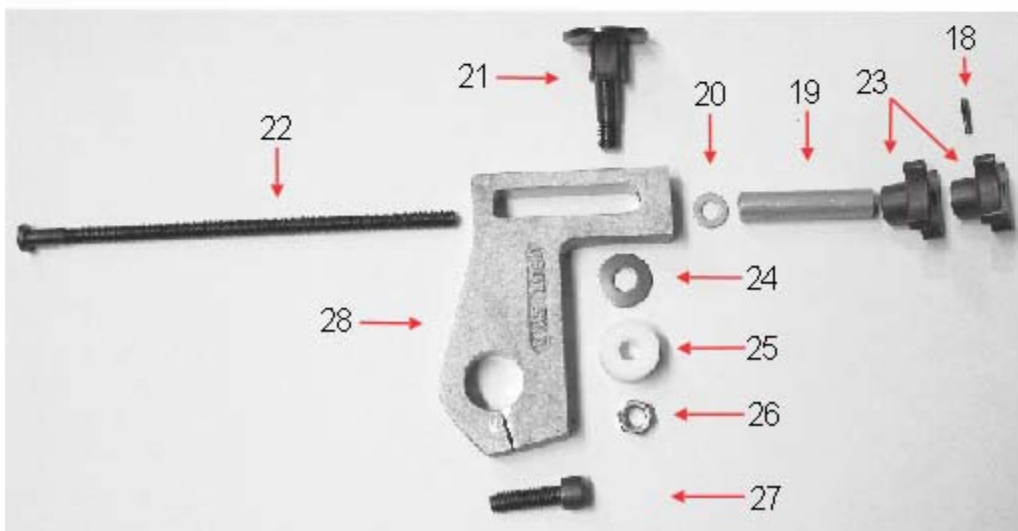
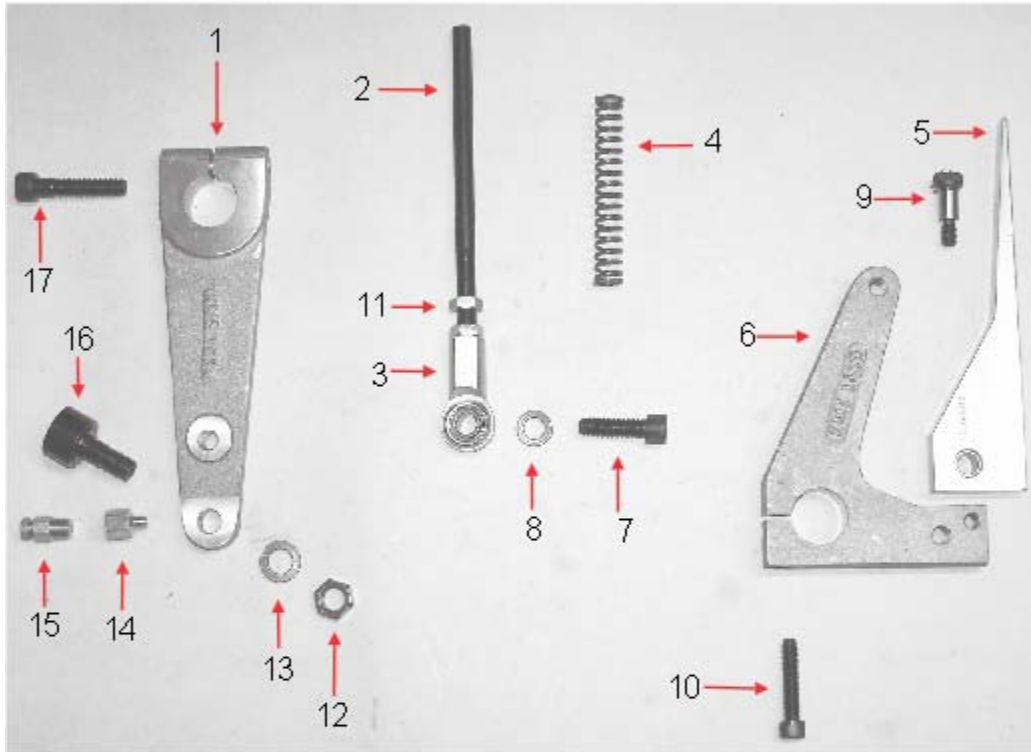
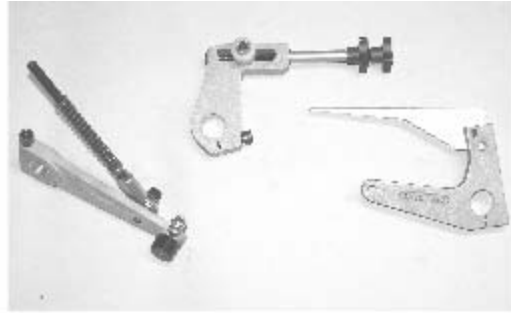
# DOUBLE CALIPER MECHANISM



**DOUBLE CALIPER MECHANISM**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 5026	SPRING GUIDE BRACKET	1
2	H-114	SOCKET HD CAPSCREW	1
3	KMS 5023	SPRING ROD	1
4	H-165	SOCKET HD CAPSCREW	1
5	H-164	LOCK WASHER	1
6	KMS 5028	COLLAR	1
7	KMS 2127	THRUST WASHER	1
8	KMS 5020	ROD END	1
9	H-126	JAM NUT	2
10	KMS 5024	SPRING	1
11	KMS 5027	DOUBLE CALIPER FRAME	1
12	KMS 5017	CALIPER ROLLER PLUG	1
13	KMS 5016	BEARING	1
14	KMS 5015	CALIPER ROLLER STUD	1
15	KMS 5018	90° LUBRICATION FITTING	1
16	H-145	SOCKET HD CAPSCREW	1
17	KMS 5009	SWITCH FRAME	1
18	KMS 5012	ADJUSTING BAR	1
19	H-001	SOCKET HD CAPSCREW	2
20	H-120	LOCK WASHER	2
21	H-247	SET SCREW	1
22	H-203	JAM NUT	1
23	KMS 5002	SPACER	1
24	KMS 5001	CARRIER ADJUST HANDLE	1
25	H-163	NYLON JAM NUT	1
26	KMS 5006	THUMB SCREW	1
27	KMS 5003	ROCKER ARM CLAMP	1
	NOT PICTURED		
	KMS 5008	MICRO SWITCH	1
	<b>DD 1000</b>	<b>DOUBLE CALIPER MECH. &amp; MICRO SWITCH ASSEMBLY</b>	

# REAR PILE LIFT ASSEMBLY

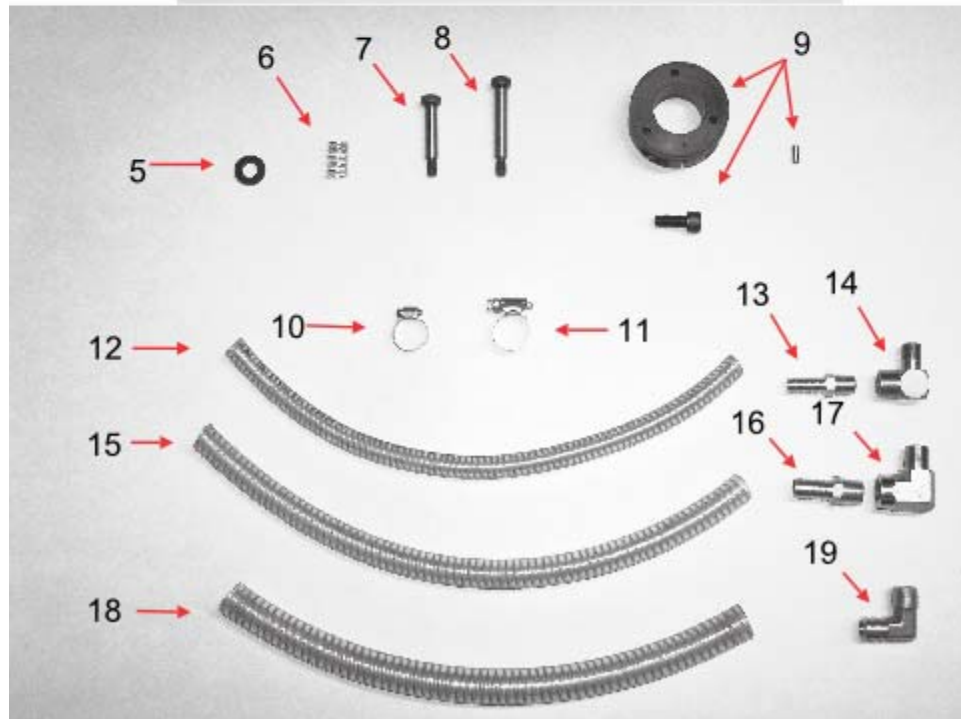
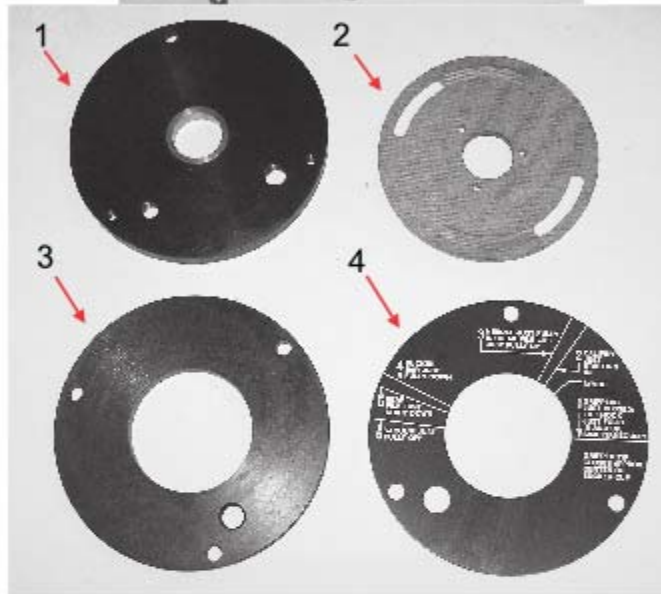


**REAR PILE LIFT ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 1034	CAM LEVER	1
2	KMS 2149	SPRING ROD	1
		MOUNTS THRU FRAME WITH	
	KMS 1090FB	FLANGE BUSHING	1
3	KMS 2125	ROD END	1
4	KMS 5024R	SPRING	1
5	KMS 1025	LIFTER BAR	1
6	KMS 1000	PILE LIFT & TRAY SUPPORT	1
7	H-122	SOCKET HD CAPSCREW	1
8	H-115	LOCK WASHER	1
9	H-188	SHOULDER BOLT	1
10	H-167	SOCKET HD CAPSCREW	1
11	H-141	JAM NUT	2
12	H-152	JAM NUT	1
13	H-153	LOCKWASHER	1
14	ET 185	ADAPTOR	1
15	KMS 0040	STRAIGHT GREASE FITTING	1
16	KMS 1015	CAM FOLLOWER 1"	1
17	H-139	SOCKET HD CAPSCREW	1
	<b>KMS 1066</b>	<b>OPERATING LEVER ASSEMBLY</b>	<b>1</b>
18	H-195	ROLL PIN	1
19	KMS 1068	SPACER	1
20	H-239	THRUST WASHER	1
21	KMS 1071	ROLLER STUD	1
22	KMS 1067	ADJUST STUD	1
23	KMS 1069	KNOB	2
24	H-240	BEVELED WASHER	1
25	KMS 1070	LIFTER BAR ROLLER	1
26	H-170	NYLON JAM NUT	1
27	H-122	SOCKET HD CAPSCREW	1
28	KMS 1060	OPERATING LEVER	1
	KMS 1815	REAR PILE LIFT SCALE	1



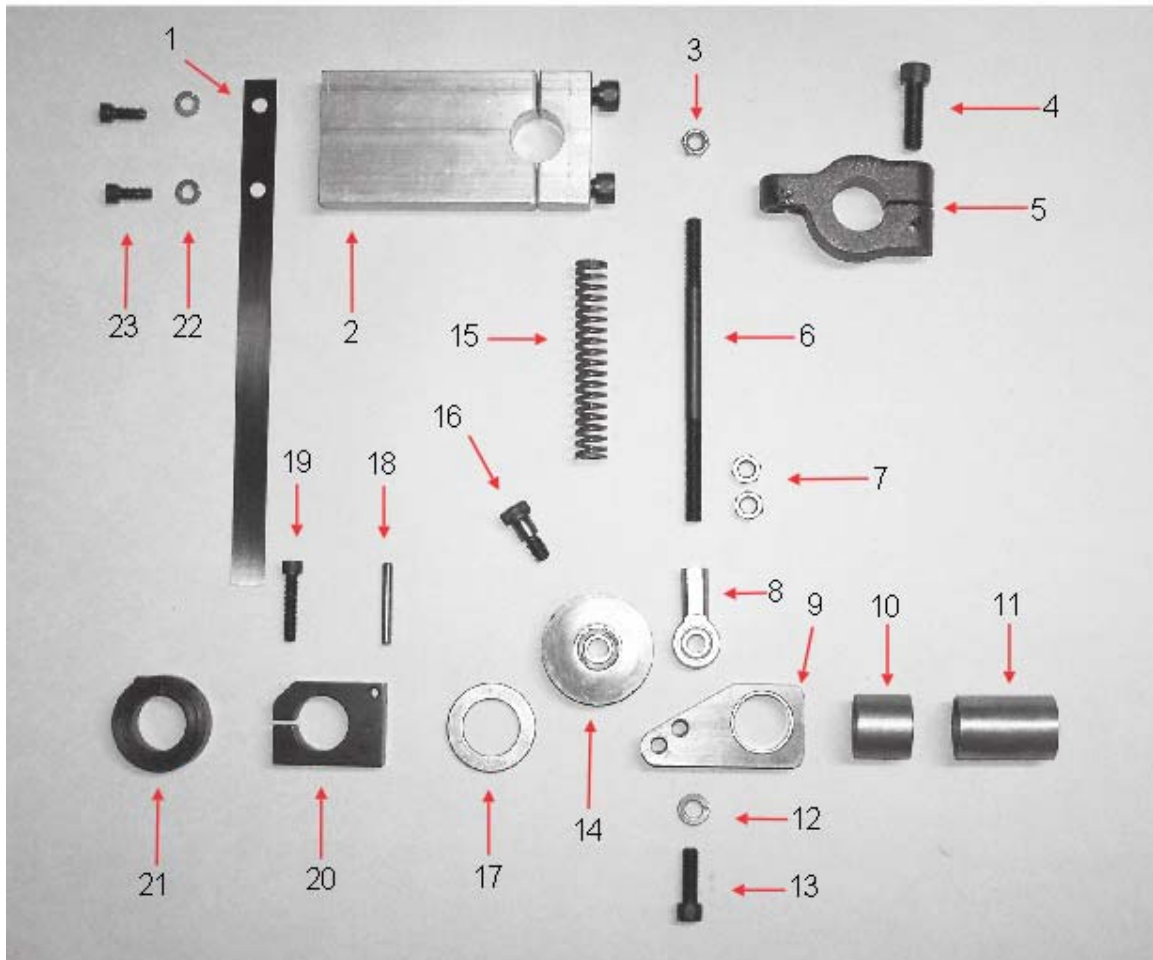
# VACUUM VALVE ASSEMBLY



**VACUUM VALVE ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2022	VALVE BASE PLATE	1
	INCLUDES		
	KMS 2023	BUSHING	1
2	KMS 2040	VACUUM DISC (FABRIC)	1
	ALSO AVAILABLE		
	KMS 2040P	VACUUM DISC (PLASTIC)	
3	KMS 2021	VALVE SPRING LOAD PLATE	1
4	KMS 0856	TIMING DISC	1
5	KMS 2058	FLAT WASHER	3
6	KMS 2059	HELICAL SPRING	3
7	KMS 1029	SHOULDER BOLT	2
8	H-176	SHOULDER BOLT	1
9	KMS 1088	VALVE DRIVE CLAMP ASSEMBLY	1
	INCLUDES		
	H-145	SOCKET HD CAPSCREW	1
	H-180	STEEL DOWEL PIN	3
10	KMS 0061	HOSE CLAMP	4
11	KMS 0028	HOSE CLAMP	2
12	KMS 2048	HOPPER HOSE 3/8"	1
13	VF-2104	3/8 BARB FITTING	1
14	VF-2100	1/4 ELL FITTING	1
15	KMS 2047	HOPPER HOSE 1/2"	1
16	VF-2102	1/2 BARB FITTING	1
17	VF-2101	3/8 ELBOW FITTING	1
18	KMS 2046	HOPPER HOSE 5/8"	1
19	VF-2103	5/8 BARB FITTING	1

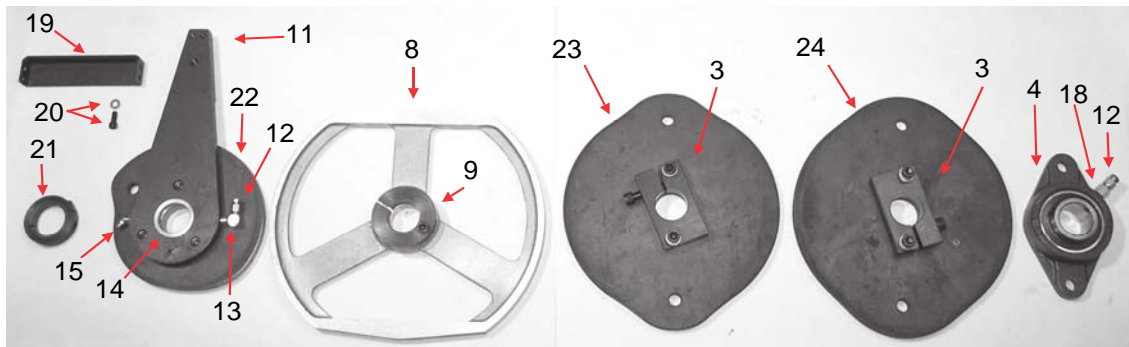
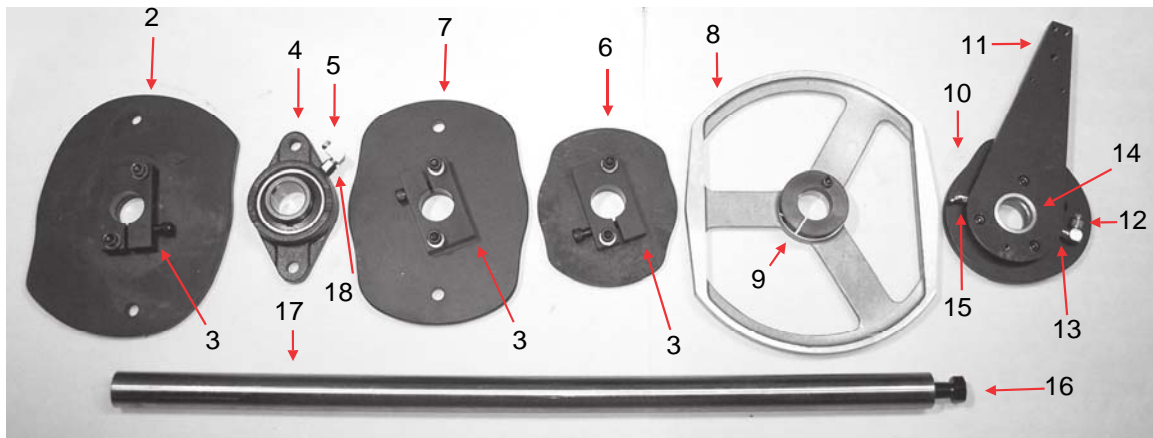
## CARRY DOWN ASSEMBLY



**CARRY DOWN ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2057	CARRY DOWN BAND	1
2	KMS 2054	CARRY DOWN CLAMP	1
	INCLUDES		
	H-114	SOCKET HD CAPSCREW	2
3	H-110	NYLON LOCKNUT	1
4	H-114	SOCKET HD CAPSCREW	1
5	KMS 5026	GUIDE SPRING BRACKET	1
6	KMS 5031	SPRING ROD	1
7	H-126	JAM NUT	2
8	KMS 5020	ROD END	1
9	KMS 2008	CARRY DOWN ARM	1
10	KMS 5038	BUSHING	1
11	KMS 5037	BEARING	1
12	H-164	LOCKWASHER	1
13	H-165	SOCKET HD CAPSCREW	1
14	KMS 1023	CARRY DOWN WHEEL (INCLUDES BEARING&RETAINING CLIP)	1
15	KMS 5024	SPRING	1
16	H-217	SHOULDER BOLT	1
17	KMS 2127	THRUSTWASHER	1
18	KMS 5034	DOWEL PIN (PRESS FIT)	1
19	H-113	SOCKET HD CAPSCREW	1
20	KMS 5035	BLOCK STOP	1
	INCLUDES	KMS 5034-DOWEL PIN (PRESS FIT)	
21	KMS 5028	COLLAR	1
22	H-120	LOCKWASHER	2
23	H-001	SOCKET HD CAPSCREW	2

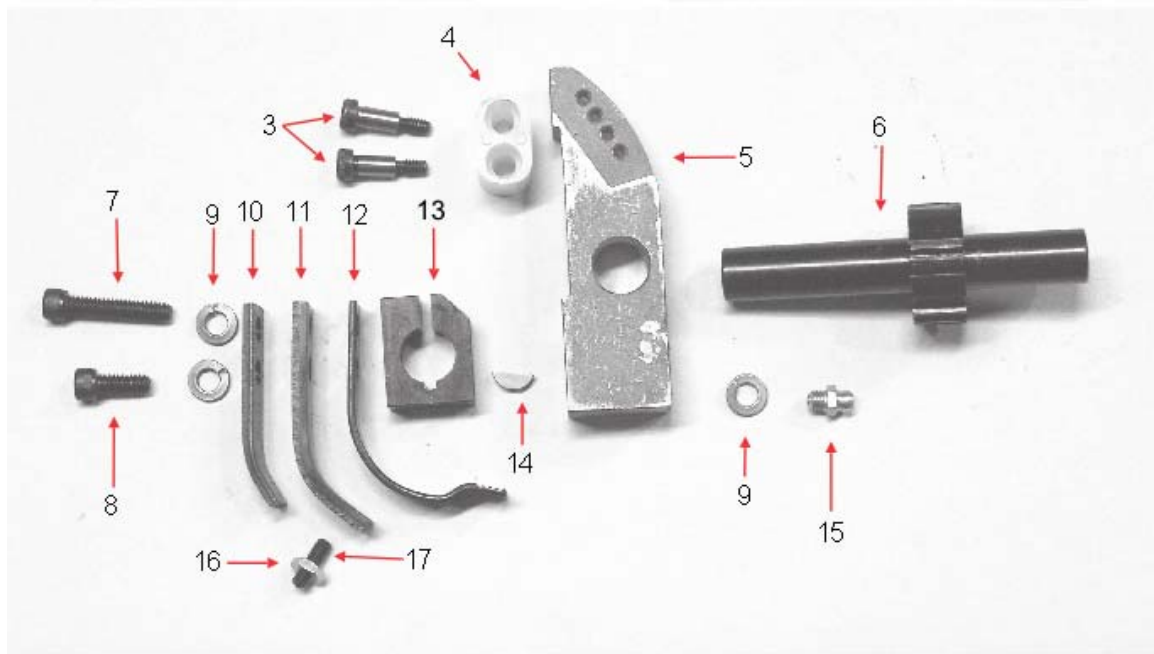
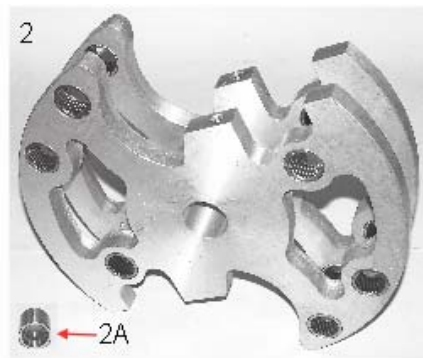
# HOPPER DRUM SHAFT ASSEMBLY



**MSL HOPPER DRUM SHAFT ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2055CS	HOPPER DRUM SHAFT COMPLETE (includes KMS 2104 pictured below)	1
2	KMS 2083	LIFT HOOK CAM	1
3	KMS 2085	CAM HUB	5
	MOUNTING		
	H-122	SOCKET HD CAPSCREW	10
	H-115	LOCKWASHER	10
	H-139	SOCKET HD CAPSCREW	5
4	KMS 2017	FLANGE BEARING	2
5	KMS 0041	ELBOW FITTING	1
6	KMS 2087	REAR PILE CAM	1
7	KMS 2084	CALIPER CAM	1
8	KMS 2056	ROLLER DRUM (includes clamp)	2
9	KMS 2041	CLAMP	2
	MOUNTING		
	H-165	SOCKET HD CAPSCREW	2
10	KMS 2088	GRIPPER SPRING CAM	1
11	KMS 2050	CAM CARRIER	2
	MOUNTING		
	H-250	SOCKET HD CAPSCREW	6
	H-160	ROLL PIN	2
12	KMS 0040	STRAIGHT FITTING	3
13	ET 184	ELBOW	2
14	KMS 2016	BRONZE BUSHING	2
15	H-178	45° GREASE FITTING	2
16	KMS 2110	LEFT HAND BOLT	1
17	KMS 2052	HOPPER DRUM SHAFT	1
18	ET 185	ADAPTER	2
19	KMS 2051	CARRIER HANDLE	1
20	MOUNTING	FOR KMS 2051	
	H-001	SOCKET HD CAPSCREW	4
	H-120	LOCKWASHER	4
21	KMS 2089	COLLAR	1
22	KMS 2090	GRIPPER CAM	1
23	KMS 2091	SUCKER SWING CAM	1
24	KMS 2092	NEEDLE CAM	1

# GRIPPER DRUM ASSEMBLY





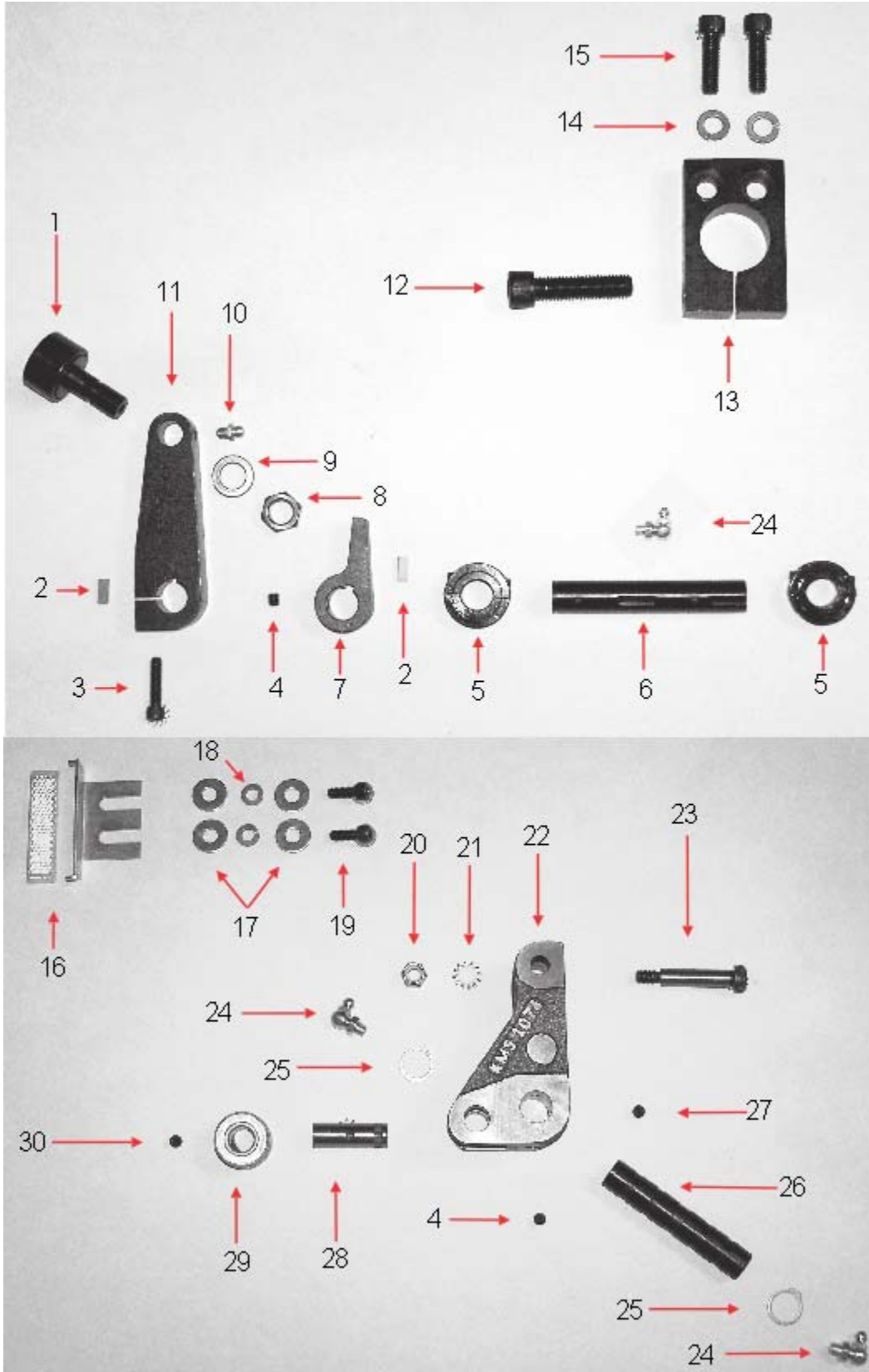
**GRIPPER DRUM ASSEMBLY**

Sheet 1 of 3

**PART**

<b>ITEM</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2055C	GRIPPER DRUM COMPLETE	1
2	KMS 2055	GRIPPER DRUM	1
	INCLUDES		
	KMS 8023	NEEDLE BEARING	12
2A	KMS 8024	INNER RACE	12
3	KMS 1028	SHOULDER BOLT	4
4	KMS 1010	SEAT GRIPPER	2
OR	KMS 1044	SEAT GRIPPER-STEEL	
5	KMS 1038	GRIPPER SUPPORT	2
6	KMS 1039 *	GRIPPER GEARSHAFT	1
7	H-002	SOCKET HD CAPSCREW	2
8	H-001	SOCKET HD CAPSCREW	2
9	H-120	LOCKWASHER	6
10	KMS 1037	GRIPPER BACKUP SPRING	2
11	KMS 1036	BACKUP LUG	2
12	KMS 1035	FLAT GRIPPER	2
12A	KMS 2043	MEDIUM GRIPPER	2
13	KMS 1043	GRIPPER CARRIER	2
OR	KMS 8019	GRIPPER CARRIER(use w/KMS 8004)	
14	H-005	WOODRUFF KEY	2
15	G 101	LUBRICATION FITTING	2
16	H-004	HEX NUT	2
17	H-003	SET SCREW	2
	MOUNTING FOR GRIPPER ASSEMBLY TO DRUM		
	H-139	SOCKET HD CAPSCREW	2
18	KMS 1038A	GRIPPER ASSEMBLY	2
*	ALSO AVAILABLE		
	KMS 1039DK	GRIPPER GEARSHAFT (double key)	
	KMS 8004	GRIPPER GEARSHAFT(half teeth)	

# GRIPPER DRUM ASSEMBLY

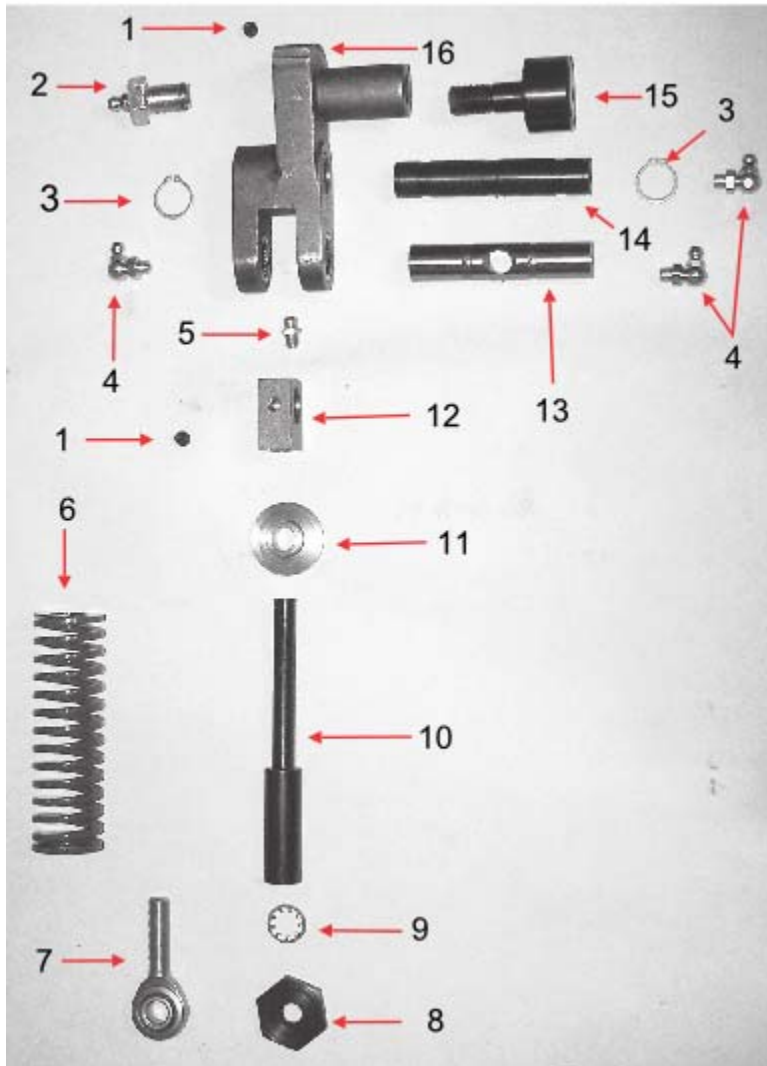


**GRIPPER DRUM ASSEMBLY**

Sheet 2 of 3

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 1072	CAM FOLLOWER 1 1/4"	2
2	H-117	SQUARE KEY	6
3	H-187H	SOCKET HD CAPSCREW	2
4	H-108	SET SCREW	4
5	KMS 8020	LOAD SHAFT CLAMP	4
6	KMS 8012	COMP MECH LEVER SHAFT	2
7	KMS 8021	LOAD CAM LEVER	2
8	H-111	HEX NUT	2
9	H-112	LOCK WASHER	2
10	G 101	LUBRICATION FITTING	2
11	KMS 1007	LOAD CAM LEVER	2
12	H-248	SOCKET HD CAPSCREW	2
13	KMS 1041	GRIPPER DRUM DRIVER	2
14	H-115	LOCK WASHER	4
15	H-191	SOCKET HD CAPSCREW	4
16	KMS 4110Y	REFLECTOR ASSEMBLY	2
	INCLUDES		
	KMS 4110B	RECTANGULAR BRACKET	1
	KMS 4110YR	YELLOW REFLECTOR	1
17	H-150	FLAT WASHER	8
18	H-120	LOCK WASHER	4
19	H-001	SOCKET HD CAPSCREW	4
20	H-110	NYLON LOCK NUT	2
21	H-109	EXTERNAL LOCK WASHER	2
22	KMS 1074A	ROCKER ARM	2
23	KMS 1029	SHOULDER BOLT	2
24	G 102	LUBRICATION FITTING	4
25	H-121	RETAINING RING	4
26	KMS 8014B	PIVOT SHAFT	2
27	H-202	SET SCREW	2
28	KMS 8022	SHAFT	2
29	KMS 8011	BEARING	2
30	H-182	SET SCREW	2

# GRIPPER DRUM ASSEMBLY



**GRIPPER DRUM ASSEMBLY**

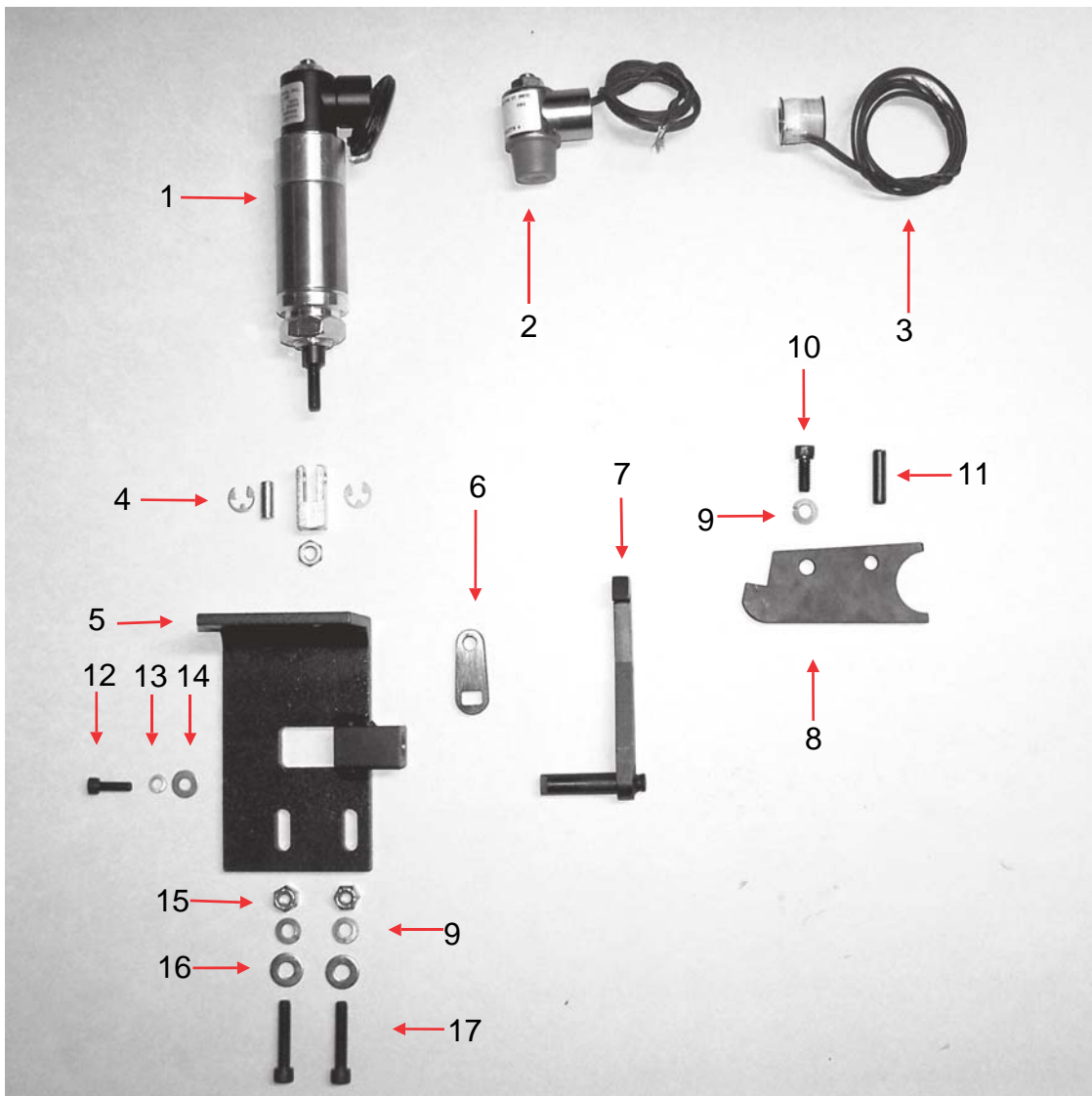
Sheet 3 of 3

ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	H-108	SET SCREW	4
2	KMS 1073	CAMROL STUD	2
3	H-121	RETAINING RING	4
4	G 102	LUBRICATION FITTING	6
5	G 101	LUBRICATION FITTING	2
6	KMS 1042	HELICAL SPRING	2
7	KMS 1012	ROD END BEARING	2
8	KMS 1011	SPRING NUT	2
9	H-119	INTERNAL LOCK WASHER	2
10	KMS 8018	SPRING ROD	2
11	KMS 1005	SPRING SEAT	2
12	KMS 8016	SPRING BLOCK	2
13	KMS 8013	SPRING BLOCK PIN	2
14	KMS 8014	PIVOT SHAFT	2
15	KMS 1072	CAM FOLLOWER 1 1/4"	2
16	KMS 1003XSB*	GRIPPER GEAR SEGMENT (STEEL W/NEEDLE BEARINGS)	2

## \*ALSO AVAILABLE

KMS 1003	GRIPPER GEAR SEGMENT (PLAIN BRONZE)
KMS 1003B	GRIPPER GEAR SEGMENT (BRONZE W/NEEDLE BEARINGS)
KMS 1003XS	GRIPPER GEAR SEGMENT (STEEL W/BUSHINGS)

# HOPPER INHIBIT MECHANISM

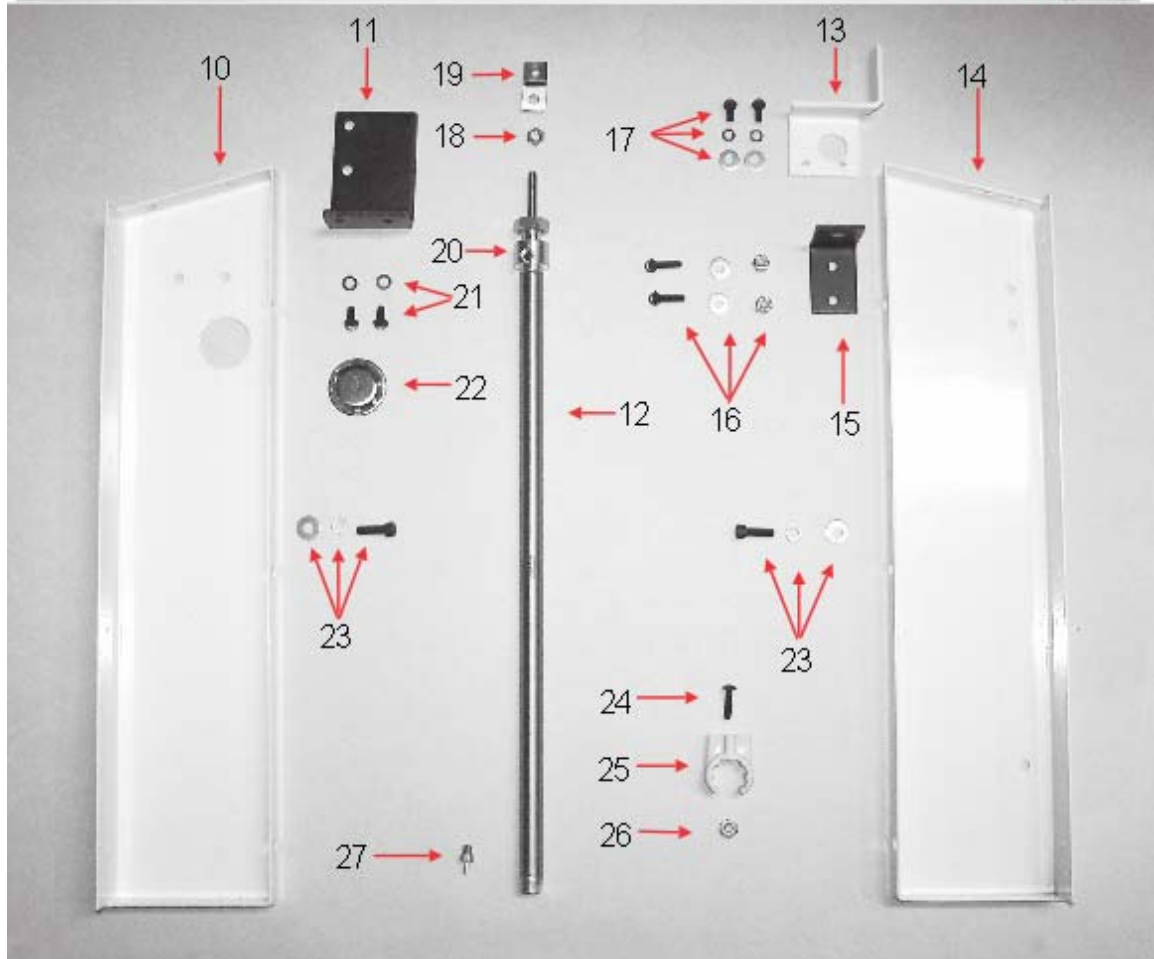
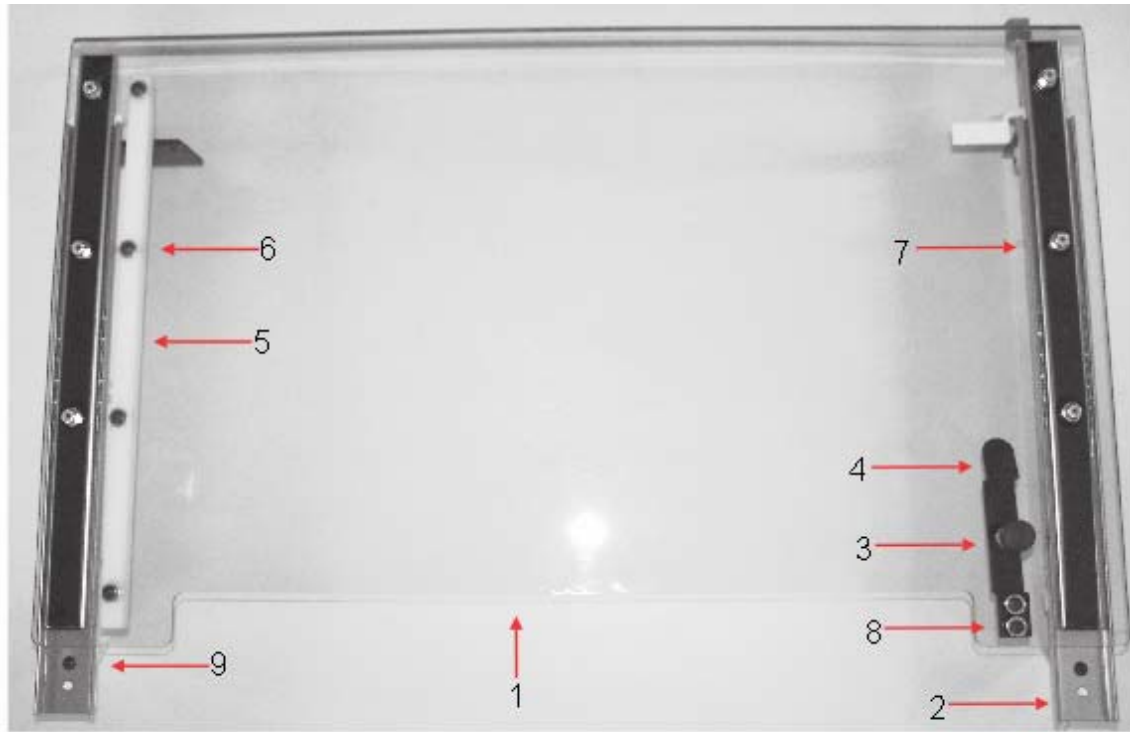


**HOPPER INHIBIT MECHANISM**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 1026	HOPPER INHIBIT VALVE	1
2	KMS 3120	ACTUATOR	1
3	KMS 3121	COIL	1
4	KMS 3116	CLEVIS	1
	ALSO	AVAILABLE	
	KMS 3116C	CLEVIS PIN CLIP	
	KMS 3116P	CLEVIS PIN	
5	KMS 3119	INHIBIT SUPPORT BRACKET	1
6	KMS 3123	INHIBIT LEVER	1
7	KMS 3109	INHIBIT LATCH	1
8	KMS 3110	INHIBIT LEVER (ATTACHES TO SUCKER LEVER)	1
9	H-120	LOCKWASHER	3
10	H-001	SOCKET HD CAPSCREW	1
11	H-160	ROLL PIN	1
12	H-207	SOCKET HD CAPSCREW	1
13	H-136	LOCKWASHER	1
14	H-204	FLAT WASHER	1
15	H-249	LOCKNUT	2
16	H-150	FLAT WASHER	2
17	H-113	SOCKET HD CAPSCREW	2

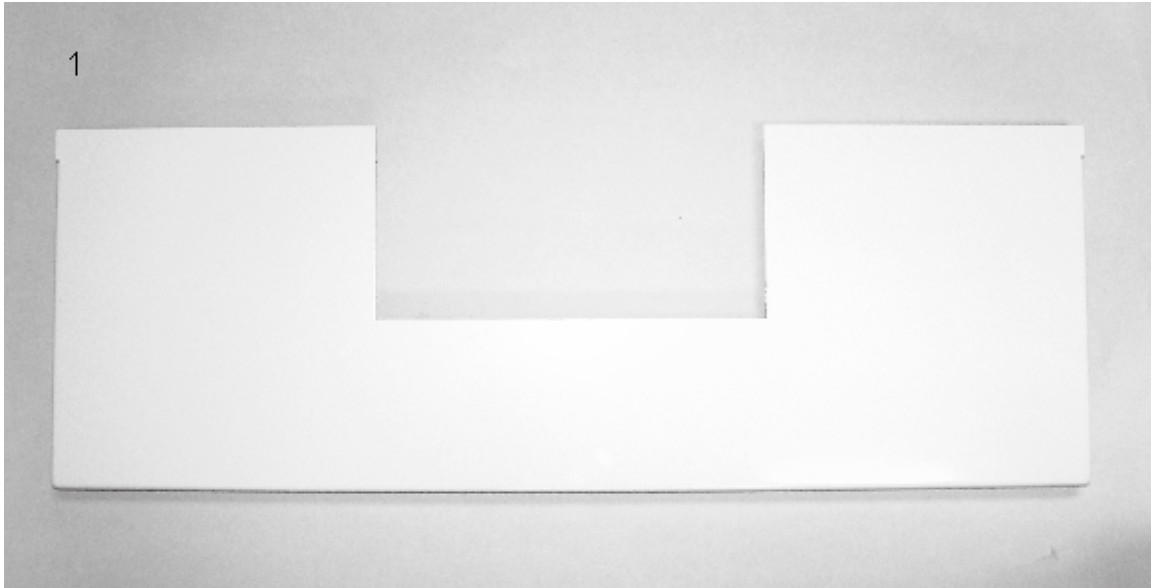


# HOPPER GUARD



GUARD		Sheet 1 of 2	
ITEM	PART #	DESCRIPTION	QUANTITY
	<b>KMS 7003</b>	<b>MSL HOPPER GUARD COMPLETE</b>	
1	KMS 7004S	GUARD	1
2	KMS 8985	SLIDE	2
3	KMS 1093	KNURLED HEAD SCREW	1
	H-213	HEX NUT	1
	H-203	JAM NUT	
4	KMS 9812	STRIKE	1
5	KMS 9816	SWITCH ACTIVATOR	1
6	MOUNTING FOR	ACTIVATOR TO GUARD	
	H-137	WASHER	4
	H-257	LOCKWASHER	4
	H-183	BUTTON HEAD CAPSCREW	4
7	MOUNTING FOR	SLIDE TO GUARD	
	H-253	BUTTON HEAD CAPSCREW	6
	H-255	LOCK NUT	6
8	MOUNTING FOR	STRIKE	
	H-183	BUTTON HEAD CAPSCREW	2
	H-137	WASHER	2
9	MOUNTING FOR	SLIDE TO FRAME	
	H-253	BUTTON HEAD CAPSCREW	8
	H-255	LOCK NUT	8
10	KMS 9807	LEFT BRACKET	1
11	KMS 9814S	SWITCH BRACKET	1
12	KMS 9527	HOPPER DOOR CYLINDER	1
13	KMS 9808	LATCH	1
14	KMS 9809	RIGHT BRACKET	1
15	KMS 9527B	CYLINDER BRACKET	1
16	MOUNTING FOR	CYLINDER BRACKET	
	H-254	BUTTON HD CAPSCREW	2
	H-137	WASHER	2
	H-255	LOCK NUT	2
17	MOUNTING FOR	LATCH	
	H-252	BUTTON HD CAPSCREW	2
	H-257	LOCK WASHER	2
	H-137	WASHER	2
18	H-004	HEX NUT	1
19	KMS 9815	WEDGE NUTS (SET OF 2)	1
20	H-251	SET SCREW	1
21	MOUNTING FOR	SWITCH BRACKET	
	H-136	LOCK WASHER	2
	H-241	BUTTON HD CAPSCREW	2
22	KMS 9805	PLUG	1
23	MOUNTING FOR	GUARD TO HOPPER	
	H-207	SOCKET HEAD CAPSCREW	8
	H-136	LOCK WASHER	8
	H-204	WASHER	8
24	H-254	BUTTON HD CAPSCREW	1
25	KMS 9810	TUBING CLAMP	1
26	H-256	HEX NUT	1
27	KMS 9527F	CYLINDER FITTING	1
	NOT SHOWN		
	KMS 5008R	MICRO SWITCH	1
	KMS 9806	BUMPER	2

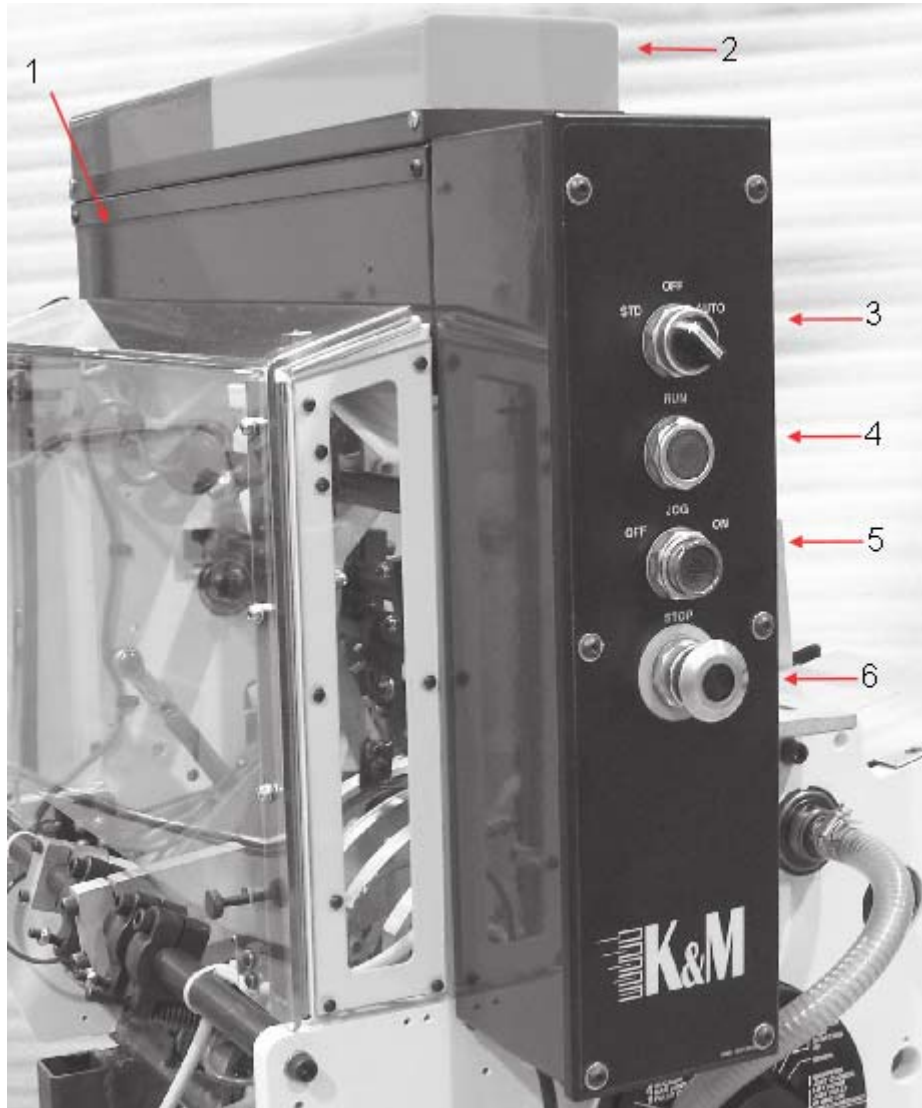
# HOPPER GUARD



Sheet 2 of 2  
PART

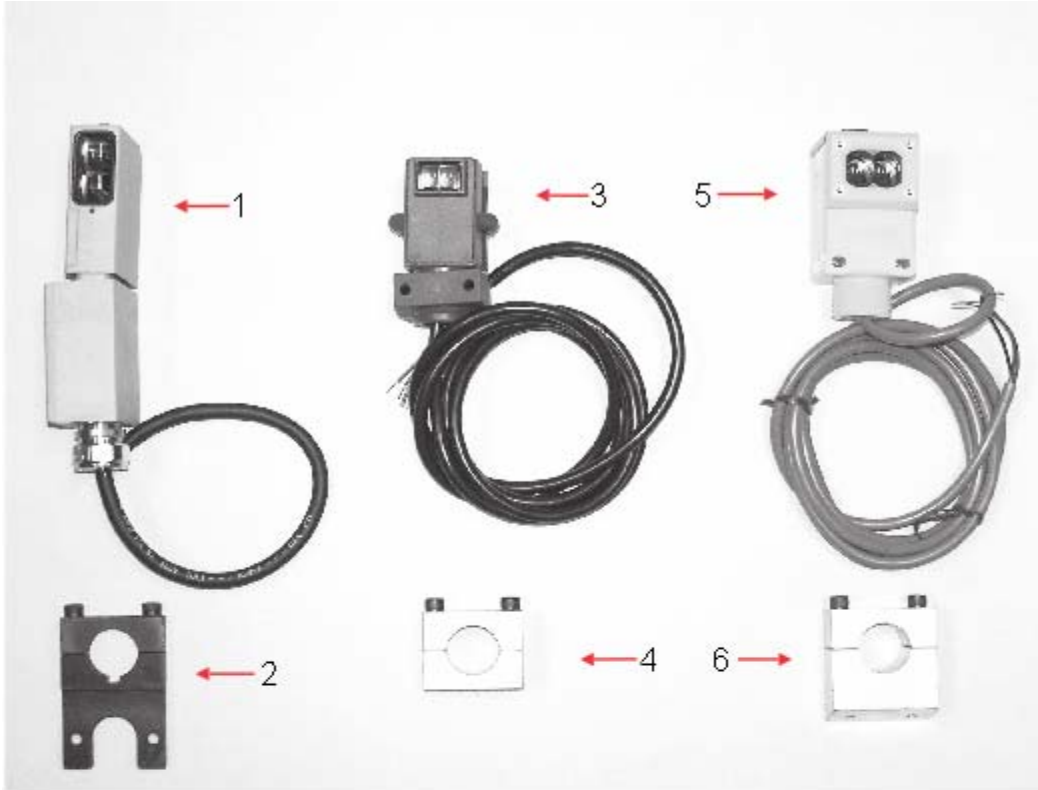
<u>ITEM</u>	<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
1	KMS 9956MSL	INHIBIT GUARD	1

## HOPPER ELECTRICS



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	KMS 2400	HOPPER ELECTRICS COMPLETE	1
2	KMS 7400	HOPPER LENS	1
	ET 100	LIGHT BULB	2
3	ET 133	3 POSITION SWITCH	1
4	ET 277	GREEN PUSHBUTTON SWITCH	1
5	ET 111	JOG SWITCH	1
6	ET 121	STOP MUSHROOM BUTTON	1
	ET 121B	BUTTON FOR ET 121	1
	NOT PICTURED		
	ET 253A	HOPPER CORD ASSY	1

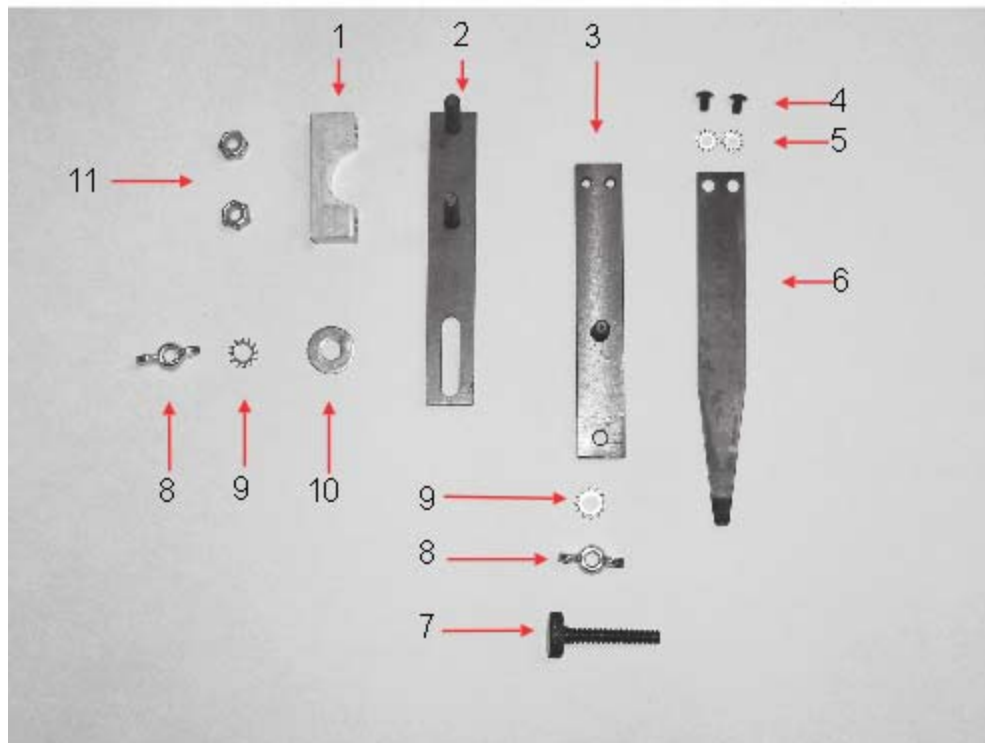
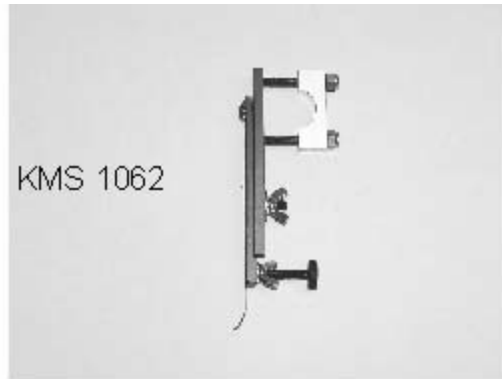
## PHOTO EYES & LIMIT SWITCHES



**PHOTO EYES & LIMIT SWITCHES**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	PC 2000	PHOTO MISS DETECTOR ASSY	1
	INCLUDES		
	ET 117	PHOTO SWITCH BASE	1
	ET 118	PHOTO SWITCH REFLEX HEAD	1
	ET 119	PHOTO SWITCH RELAY	1
2		REMANUFACTURED CLAMP	1
3	PC 2000A	PHOTO EYE	1
	INCLUDES		
	ET 163	PHOTOCELL	1
	ET 164	LIGHT/DARK MODULE	1
	ET 165	SOLID STATE RELAY	1
4	PC 2000B	PHOTO EYE BRACKET	1
5	PC 2004	PHOTO EYE	1
6	KMS 1652	PHOTO EYE BRACKET	1
7	OBSOLETE	LIMIT/MICRO SWITCH	1
8	KMS 5008	LIMIT/MICRO SWITCH	1
9	KMS 5008R	LIMIT/MICRO SWITCH	1

## STRIPPER ASSEMBLY



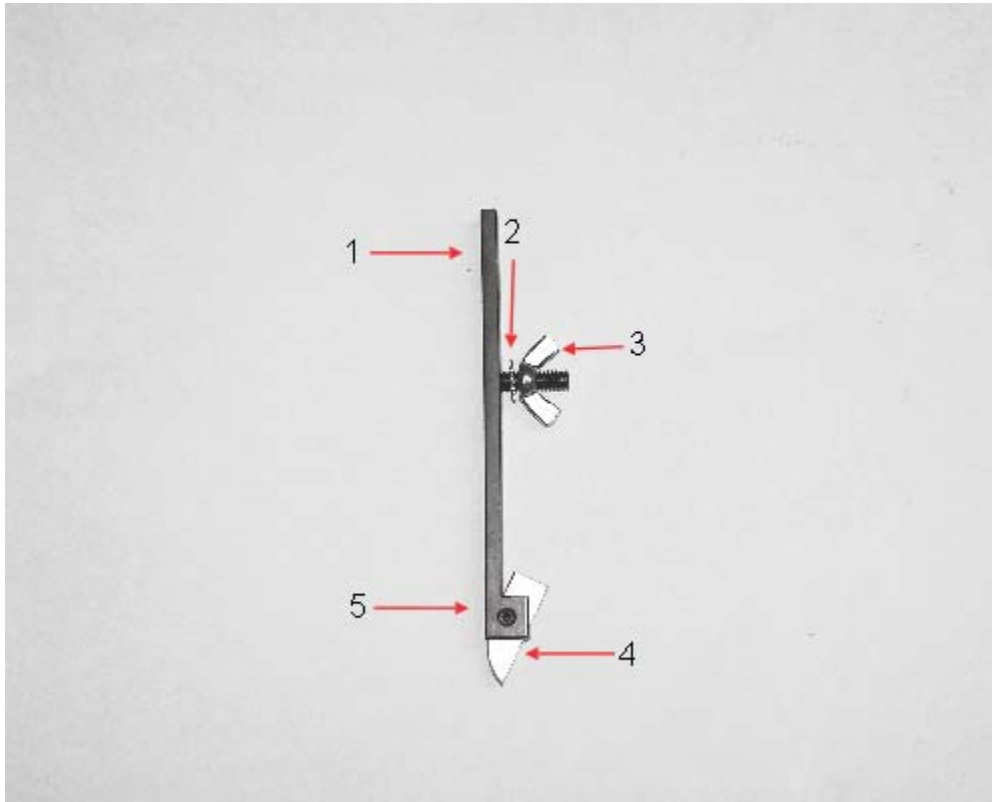
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
	KMS 1062	COMPLETE ASSEMBLY	1
	INCLUDES	EVERYTHING PICTURED	
1	KMS 1092	STRIPPER CLAMP	1
2	KMS 1091	STRIPPER GUIDE	1
3	KMS 1094	STRIPPER BASE	1
4	H-183	BUTTON HD CAPSCREW	2
5	H-262	EXTERNAL LOCKWASHER	2
6	YOUR CHOICE	STRIPPER	1
7	KMS 1093	KNURLED HEAD SCREW	1
8	H-124	WING NUT	2
9	H-261	EXTERNAL LOCKWASHER	2
10	H-150	FLAT WASHER	1
11	H-249	NYLON LOCKNUT	2

# STRIPPERS





## STRIPPERS



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	KMS 1094SS	SINGLE SHEET STRIPPER	1
	INCLUDES	BLADE, BASE & SETSCREW	
2	H-261	EXTERNAL LOCKWASHER	1
3	H-124	WINGNUT	1
4	KMS 1094SSB	BLADE	1
5	H-251	SETSCREW	1

# STRIPPERS

FLEXIBLE STRIPPER  
ADJUSTABLE



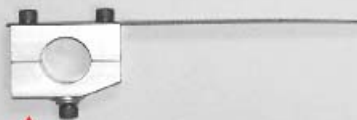
KMS 2035NYT



FLEXIBLE STRIPPER  
LARGER SECTION  
INSERTS

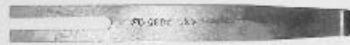


KMS 2035CS



KMS 2036

FLEXIBLE STRIPPER  
LARGER SECTION  
INSERTS



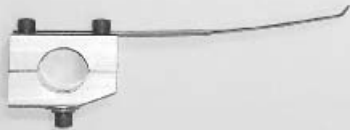
KMS 2035OS



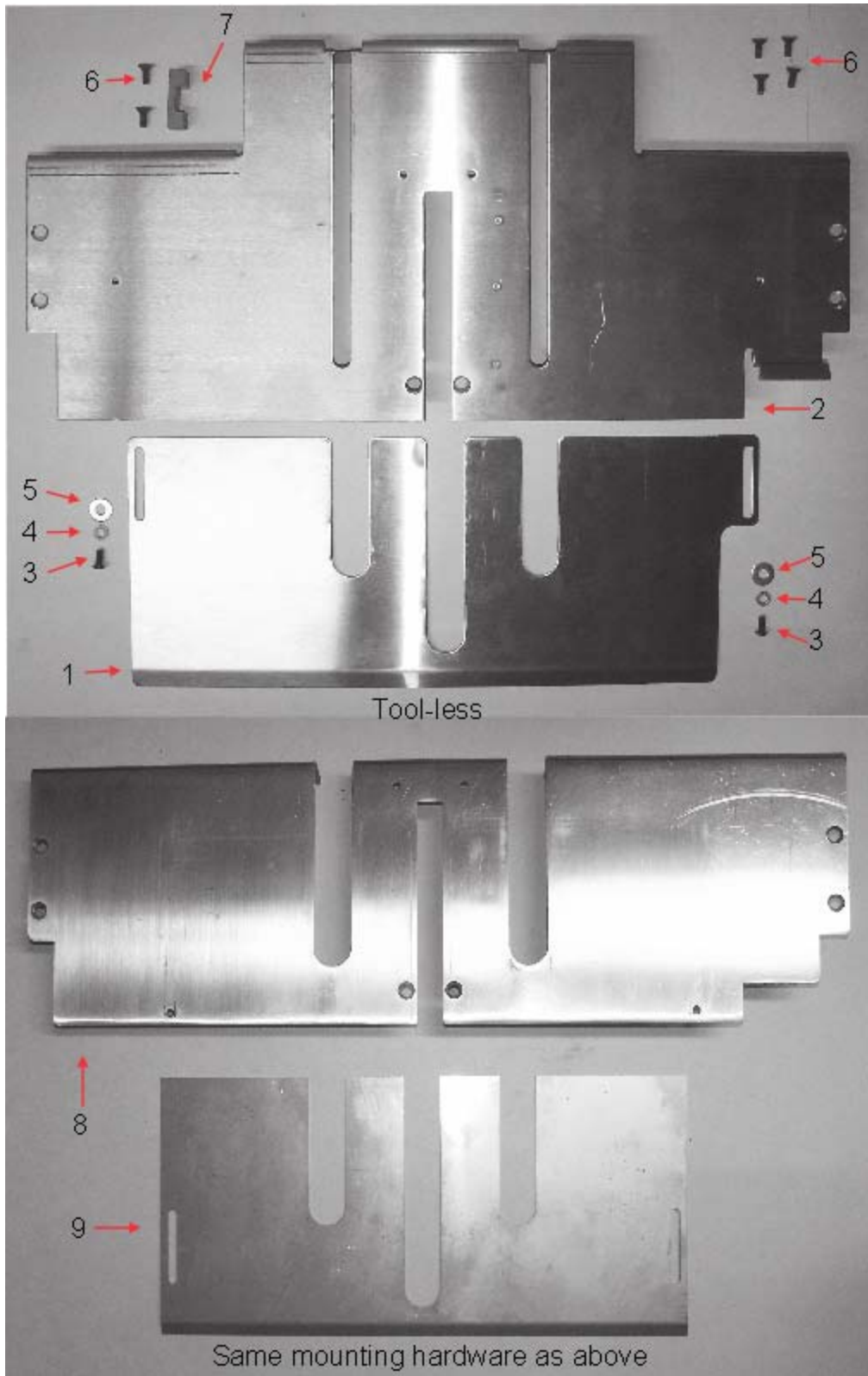
FLEXIBLE STRIPPER  
TV GUIDE



KMS 2035TV



# PAPER GUIDES

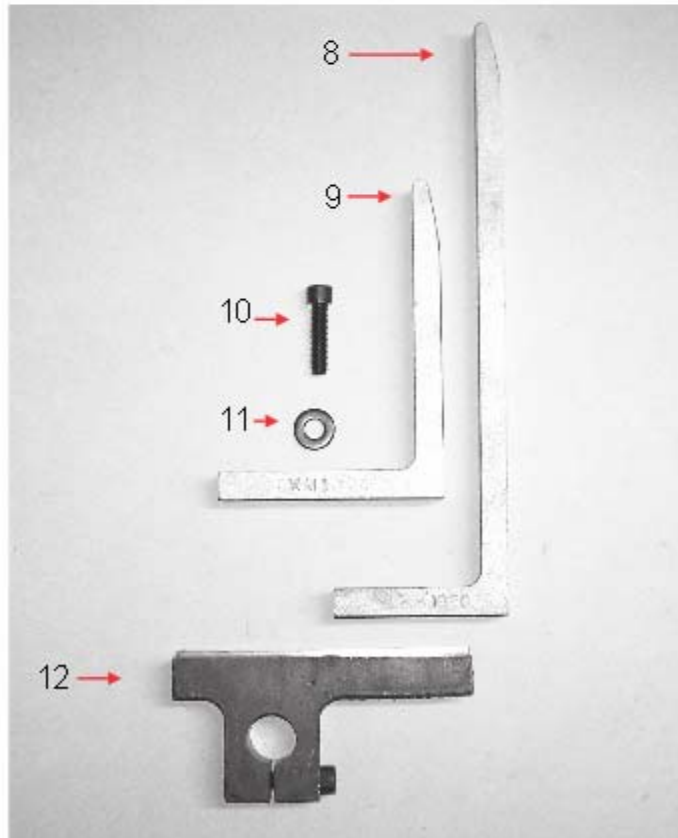
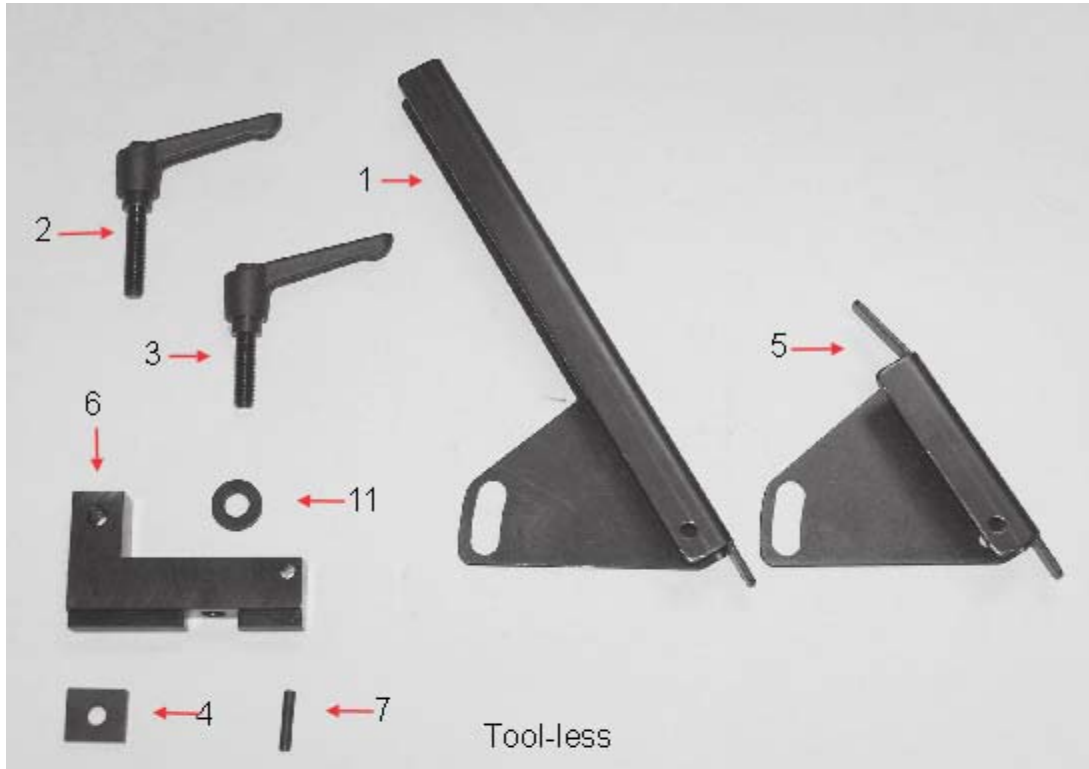


**PAPER GUIDES**

Sheet 1 of 4

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 9958	BELLY PLATE (TOOLESS)	1
2	KMS 9957T	FEED TRAY (TOOLESS)	1
3	H-259	BUTTON HD CAPSCREW	2
4	H-120	LOCKWASHER	2
5	H-150	FLAT WASHER	2
6	H-260	FLAT HEAD SCREW	6
7	KMS 9957B	FEED TRAY BRACKET	1
8	KMS 9957	FEED TRAY	1
9	KMS 2013	BELLY PLATE	1

# PAPER GUIDES



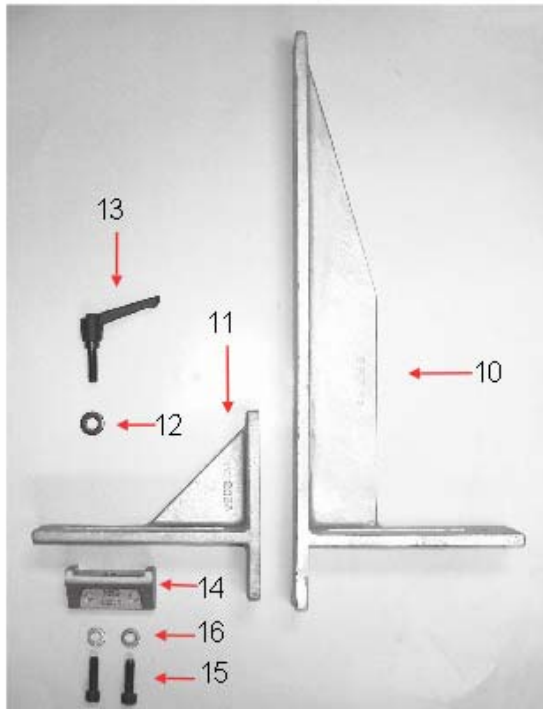
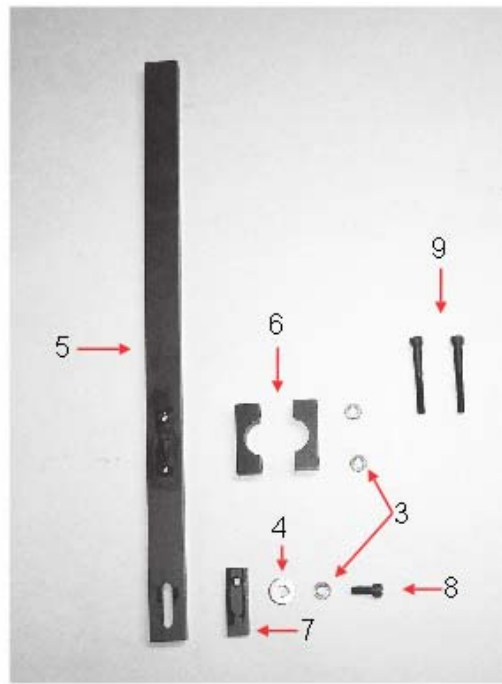
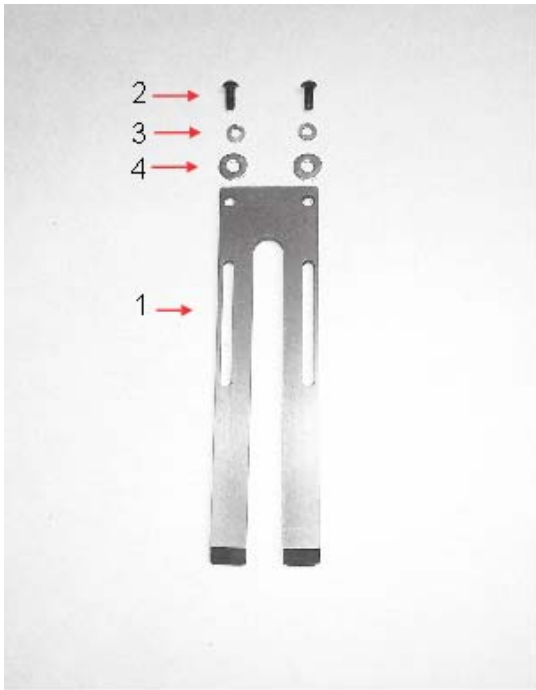
**PAPER GUIDES**

Sheet 2 of 4

**PART**

<b>ITEM</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	MSLT-0001	BACK GUIDE LONG (TOOLESS)	1
2	ET 177	HANDLE (TOOLESS)	1
3	ET 176	HANDLE (TOOLESS)	1
4	MSLT-0004	SQUARE NUT	1
5	MSLT-0002	BACK GUIDE SHORT (TOOLESS)	1
6	MSLT-0003	BRACKET	1
7	H-160	ROLL PIN	1
8	KMS 1080	BACK GUIDE LONG	1
9	KMS 1079	BACK GUIDE SHORT	1
10	H-114	SOCKET HD CAPSCREW	1
11	KMS 2058	FLAT WASHER	1
12	KMS 1081	BACK GUIDE SUPPORT	1

# PAPER GUIDES



**PAPER GUIDES**

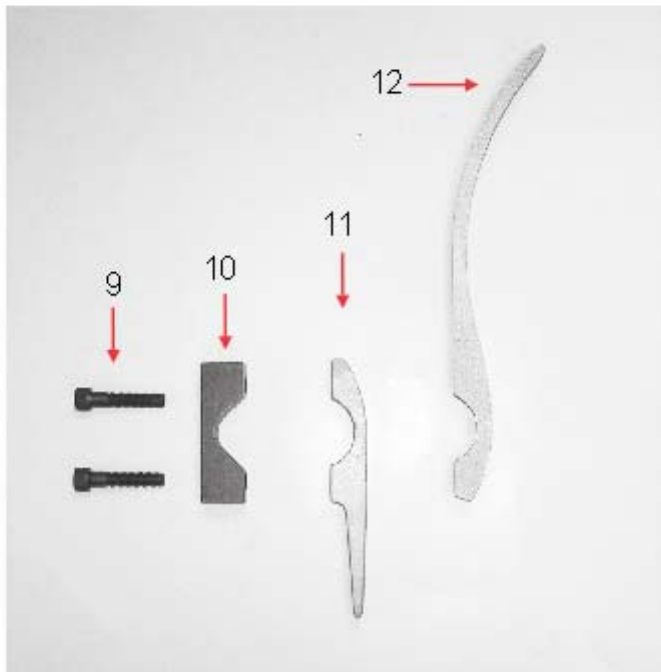
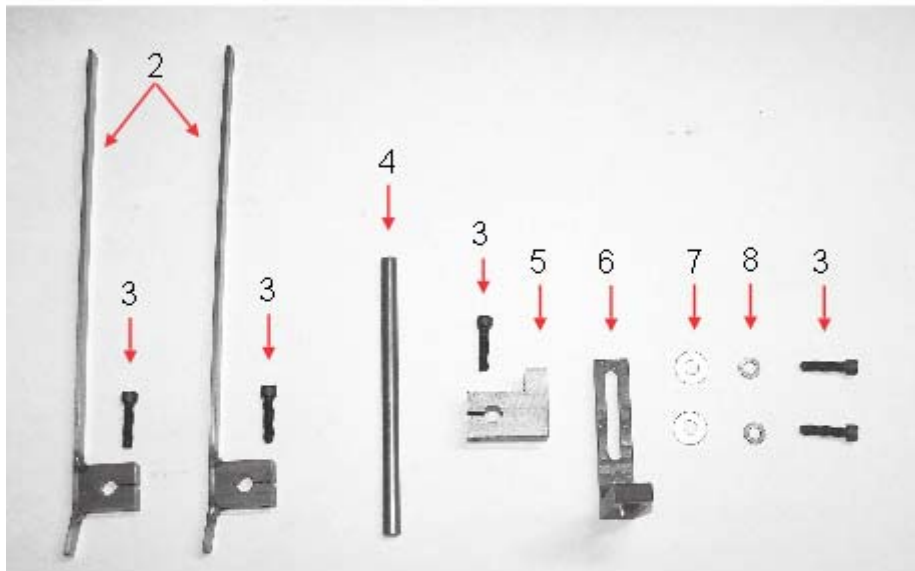
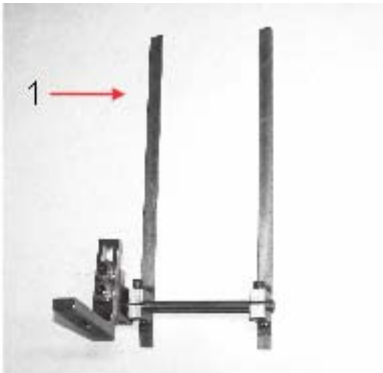
Sheet 3 of 4

**PART**

<b>ITEM</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2014	SADDLE	1
2	H-259	BUTTON HD CAPSCREW	2
3	H-120	LOCKWASHER	7
4	H-150	FLAT WASHER	3
5	KMS 2044	FRONT GUIDE	2
	INCLUDES	CLAMP & TAB	
6	KMS 2044C	CLAMP FOR 2044	1
7	KMS 2044T	TAB FOR 2044	1
8	H-001	SOCKET HD CAPSCREW	2
9	H-158	SOCKET HD CAPSCREW	2
10	KMS 2033	REAR GUIDE (TALL)	1
11	KMS 2034	FRONT GUIDE (SHORT)	1
12	KMS 2058	FLAT WASHER	2
13	ET 176	HANDLE	2
14	KMS 9311	SIDE GUIDE BASE	2
15	H-122	SOCKET HD CAPSCREW	4
16	H-115	LOCKWASHER	2



# PAPER GUIDES



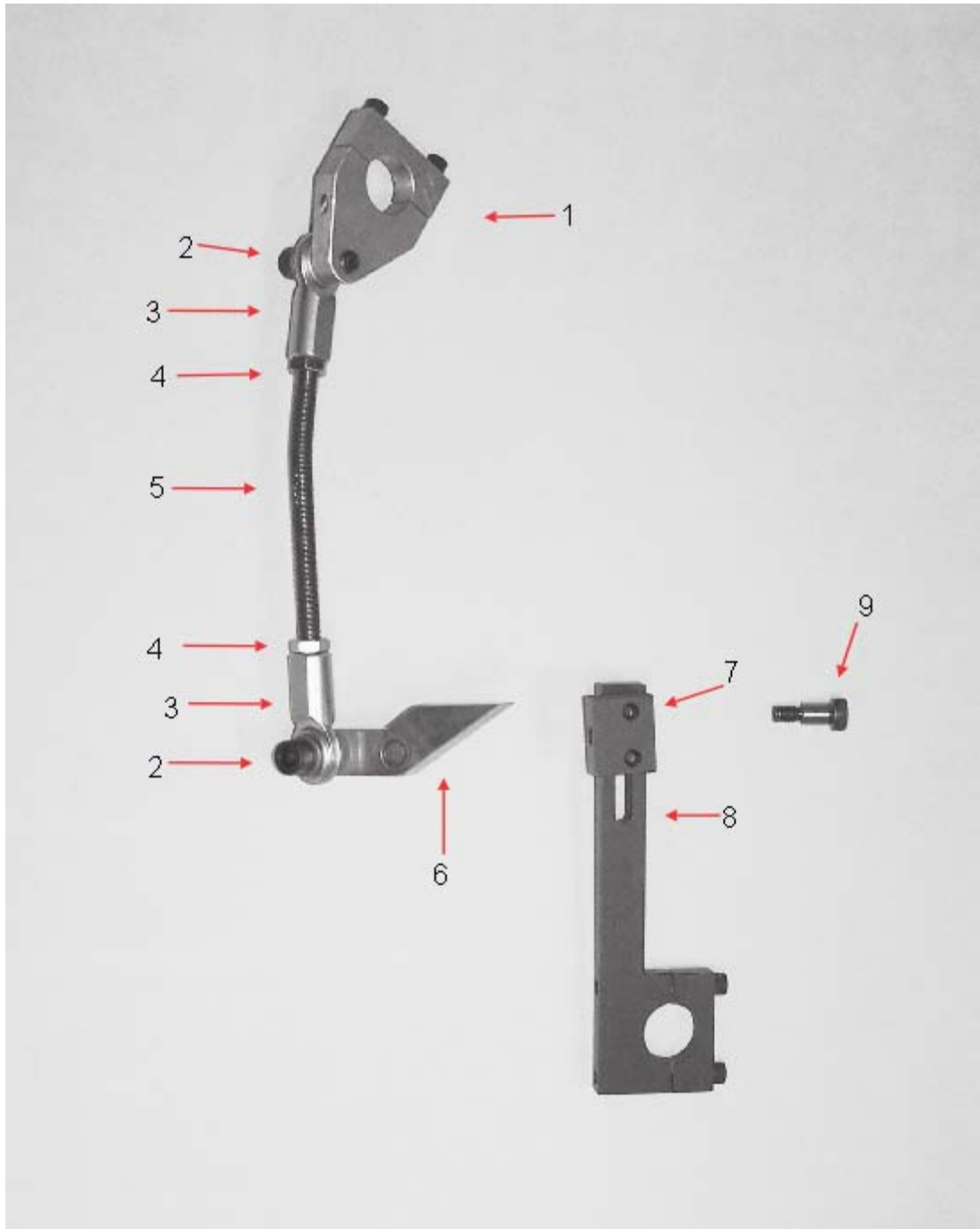
**PAPER GUIDES**

Sheet 4 of 4

**PART**

<b>ITEM</b>	<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 7600	CARD CAN ASSEMBLY INCLUDES ITEMS 2 THRU 8	1
2	KMS 7600G	GUIDE	2
3	H-187	SOCKET HD CAPSCREW	5
4	KMS 7600R	ROD	1
5	KMS 7600B	BRACKET	1
6	KMS 7600L	L BRACKET	1
7	H-150	FLAT WASHER	2
8	H-120	LOCKWASHER	2
9	H-106	SOCKET HD CAPSCREW	4
10	KMS 2119	CLAMPING CAP	2
11	KMS 2118	DROP GUIDE	1
12	KMS 2117	DRUM GUIDE	1

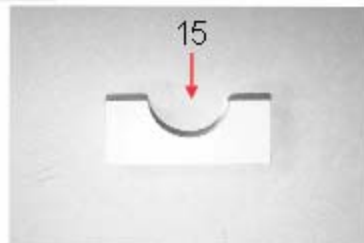
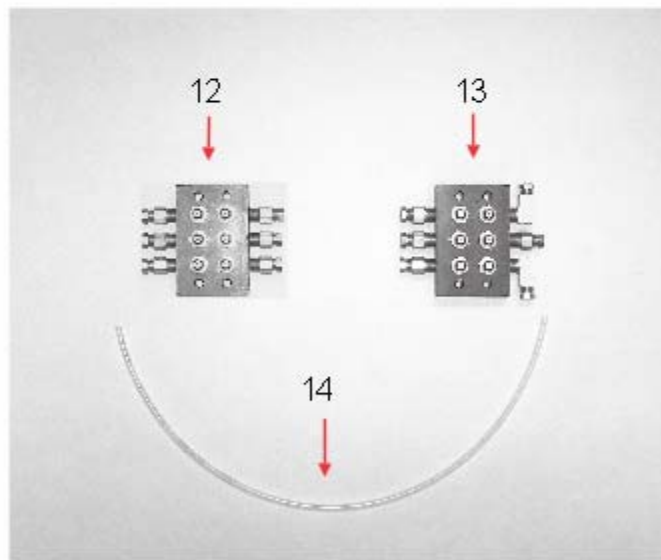
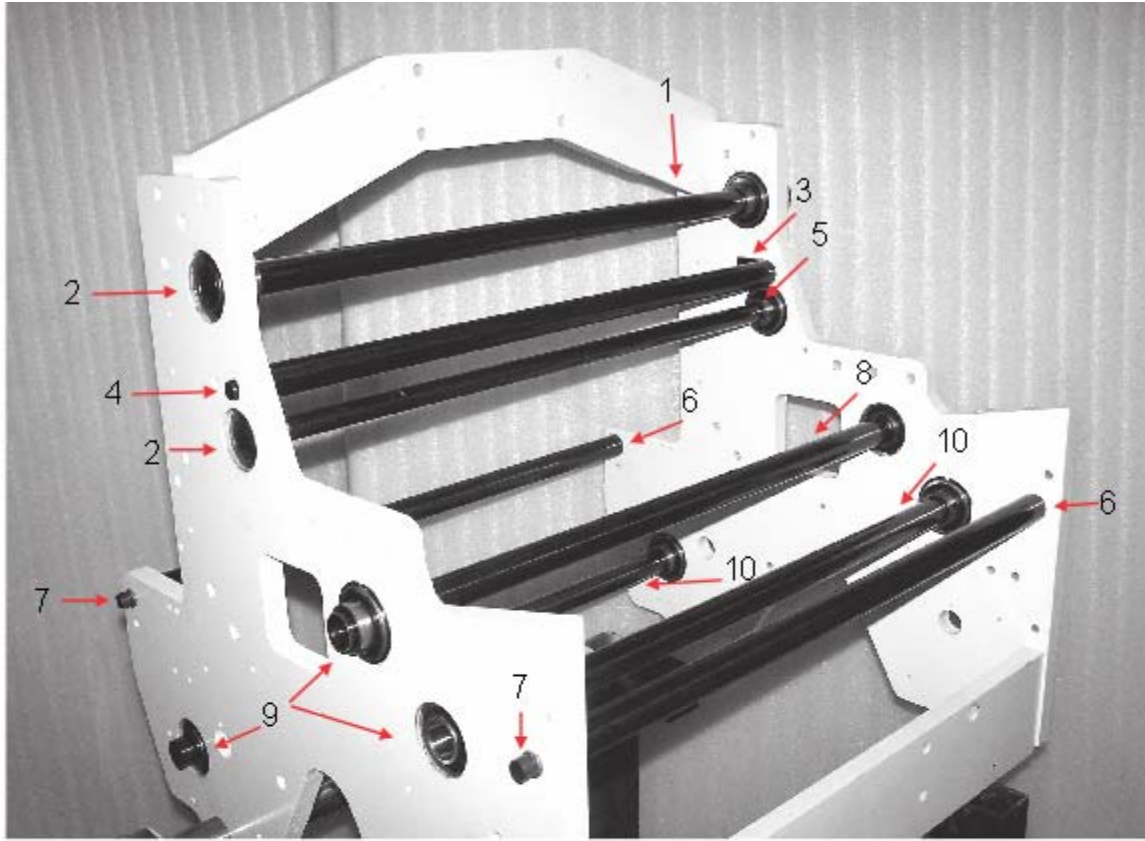
## BOWING FINGER ASSEMBLY



**BOWING FINGER ASSEMBLY**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
	KMS 2011	LEFT BOWING FINGER	
	KMS 2012	RIGHT BOWING FINGER	
1	KMS 2026	SIDE ACTUATING LEVER ASSY	1
	INCLUDES		
	H-002	SOCKET HD CAPSCREW	2
2	H-122	SOCKET HD CAPSCREW	2
	H-115	LOCKWASHER	2
3	KMS 1047	ROD END BEARING	2
4	H-141	JAM NUT	2
5	KMS 2029	PUSH ROD	1
6	KMS 2030	PUSHER FINGER	1
7	KMS 2031	PIVOT BLOCK	1
	MOUNTS WITH		
	H-187	SOCKET HD CAPSCREW	2
	H-120	LOCKWASHER	2
8	KMS 2032	CLAMP SUPPORT ASSY	1
	INCLUDES		
	H-002	SOCKET HD CAPSCREW	2
9	H-175	SHOULDER BOLT	1

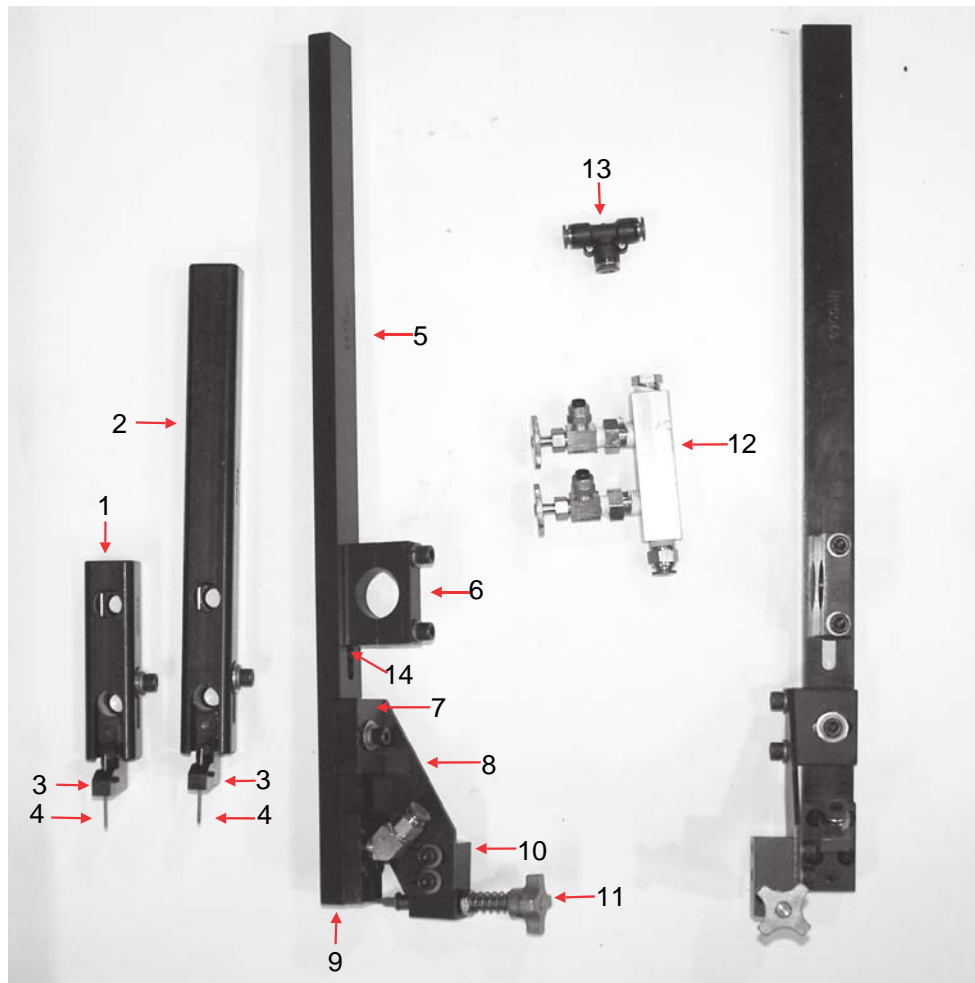
# FRAME



**FRAME**

<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
1	KMS 2120	LIFT HOOK SHAFT	1
2	KMS 0058	BEARING	4
3	KMS 9313	BUMPER CAM SHAFT	1
4	H-191	SOCKET HD CAPSCREW	1
5	KMS 9319	NEEDLE SHAFT	1
6	KMS 2146	TIE SHAFT	2
7	H-114	SOCKET HD CAPSCREW	4
8	KMS 2027	SUCKER TUBE	1
9	KMS 0059	BEARING	6
10	KMS 9211	SHAFT 24 1/2"x1"	2
11	KMS 2147	SUB FRAME	1
12	KMS 2606N	GREASE BLOCK-LEFT FITTINGS	1
13	KMS 2606N	GREASE BLOCK- RIGHT FITTINGS	1
14	ET 172	GREASE LINE	-
15	KMS 0088	HOPPER CLAMP	2

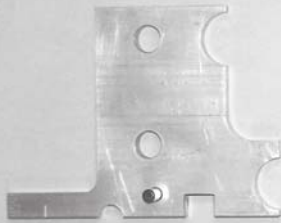
## SINGLE SHEET ENHANCEMENT KIT



ITEM	PART NUMBER	DESCRIPTION	QUANTITY
	HP0087	SINGLE SHEET ENHANCEMENT KIT	1
1	HP0082	SHORT REAR NEEDLE BAR	1
2	HP0078	LONG REAR NEEDLE BAR	1
3	HP0080	REAR NEEDLE BLOCK ASSY	2
4	KMS 1032	PILE SUPPORT NEEDLE	2
5	HP0069	LIGHT SECTION FRONT GUIDE	2
6	KMS 2044C	CLAMP	2
7	HP0073	ADJUSTMENT BLOCK	2
8	HP0074	NEEDLE BRACKET	2
9	HP0070	LOWER AIR BLOCK	2
10	HP0075	NEEDLE BLOCK	2
11	KMS 2322	THREADED ROD W/HANDLE ASSY	2
12	HP0085	AIR MANIFOLD,AIR BLAST ASSY	1
13	AF 0001	AIR FITTING	1
14	HP0071	NUT BAR	2

# HOPPER TOOLS

KMS 0845



SET UP GAUGE

KMS 0739



TIMING GAUGE

KMS 1823



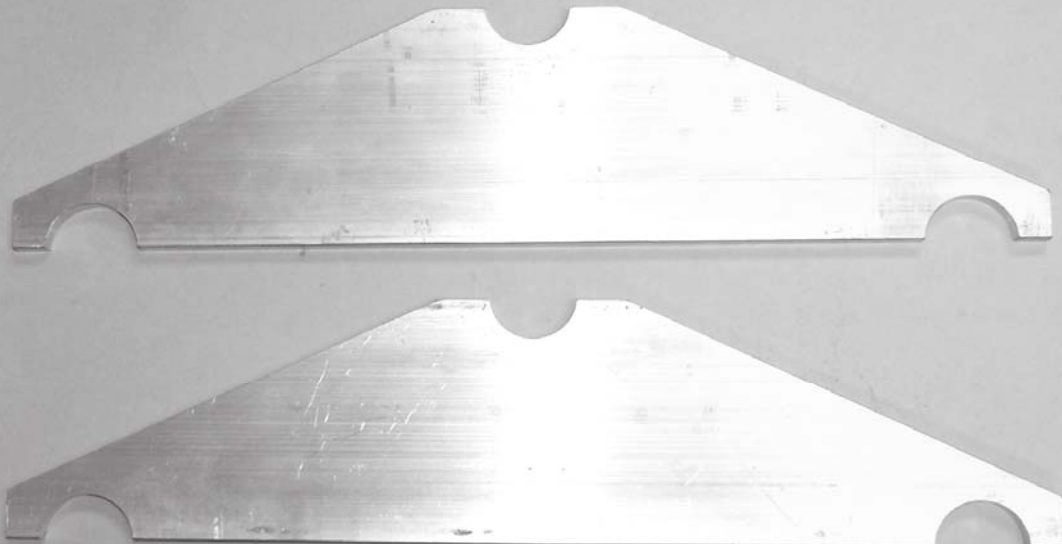
BEARING  
REMOVAL  
TOOL

KMS 1806



SPRING  
COMPRESSION  
TOOL

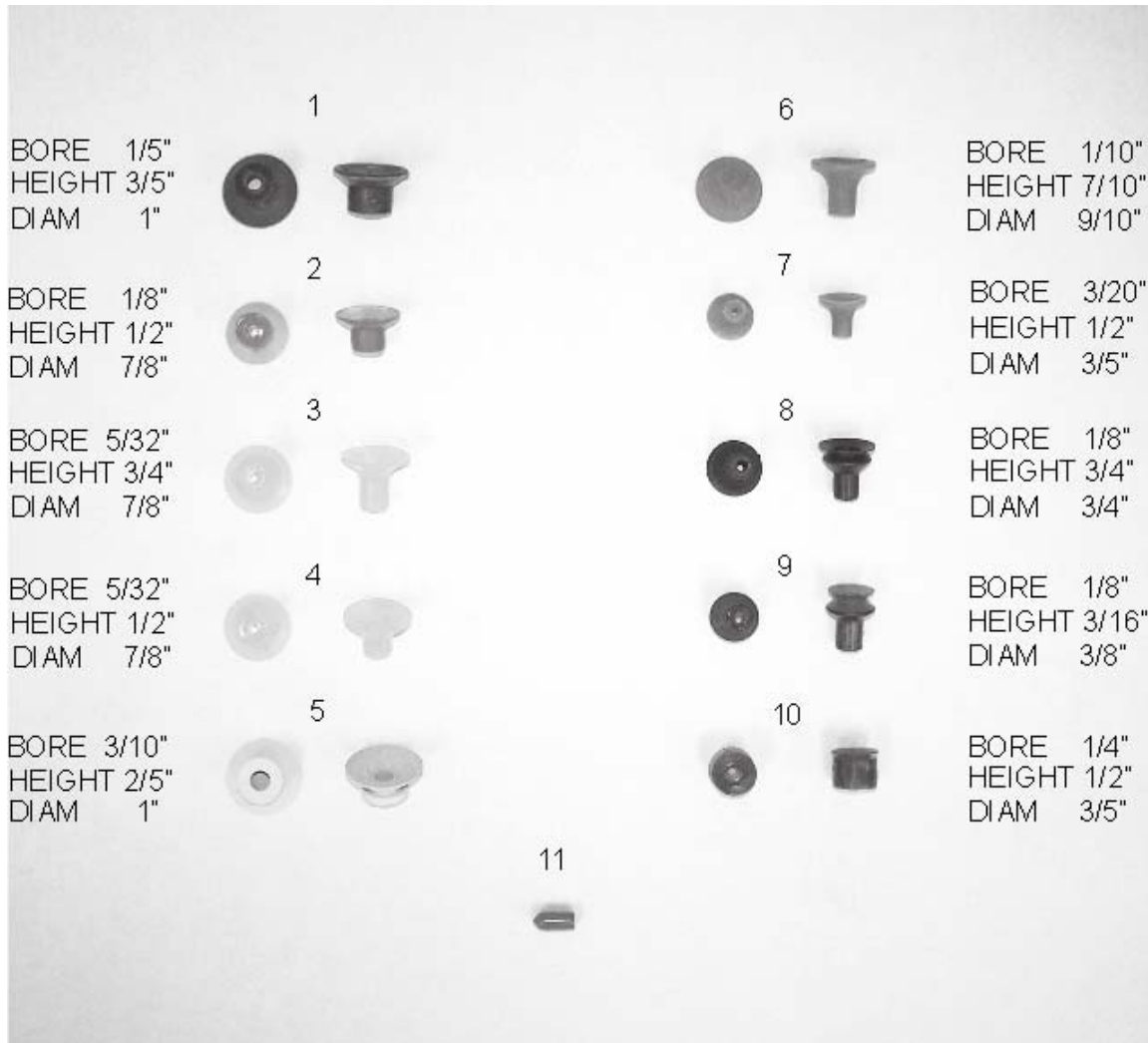
KMS 1939



HOPPER SHAFT SET UP FIXTURE



### SUCKERS & CAPS



ITEM	PART NUMBER	DESCRIPTION
1	KMS 138	BLUE SUCKER
2	KMS 36B	GREEN SUCKER
3	KMS 50Y	YELLOW SUCKER
4	KMS 56Y	YELLOW SUCKER
5	KMS 0310	BEIGE SUCKER
6	S502-1	LARGE SUCKER
7	S506-1	SMALL SUCKER
8	KMS BL15	BLACK SINGLE SHEET SUCKER
9	KMS B15	BLUE SINGLE SHEET SUCKER
10	KMS 5252	MOVABLE POCKETWALL SUCKER
11	RED CAPS	
11	RC 172	1/2" LONG .172 DIAMETER
	RC 250	5/8" LONG .250 DIAMETER

