GENERAL • CONSTRUCTION • MAINTENANCE

INSTRUCTIONS

TYPE DM MASTER SWITCH

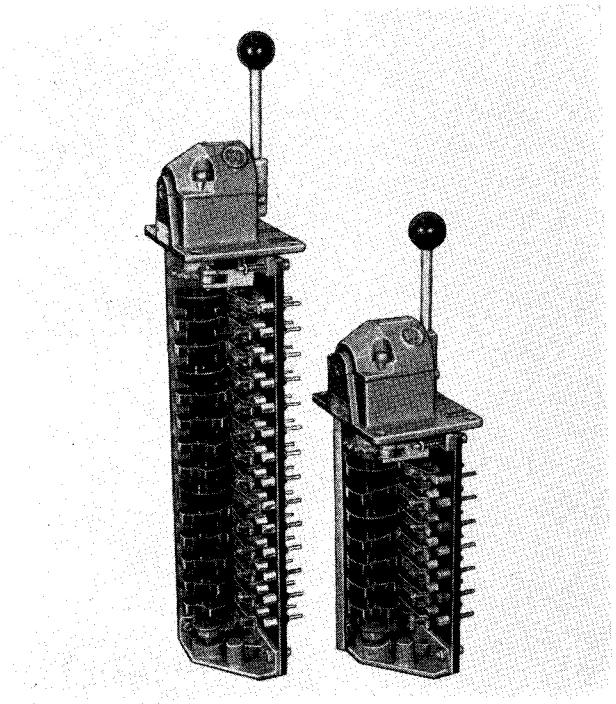

FIG. 1. Type DM Master Switch, 14-Circuit and 7-Circuit

GENERAL

THE WESTINGHOUSE TYPE DM MASTER SWITCH is designed for desk mounting and is intended for use with all types of mill, crane and hoist magnetic controllers. (See Fig. 1).

The switch is available with from one to six positions on either side of the "off" position and from two to fourteen electrical circuits. The cams are cut at the time of purchase to provide a development suiting the intended application. A starwheel with an adjustable follower provides positive positioning of the cam shaft. A spring return device is an optional feature. The cam-operated double break contacts may be equipped with permanent magnet blowouts and arc barriers, if desired, to increase their current interrupting capacity, Arc barriers are used on all switches above 230 volts.

The lower part of the switch is intended for insertion through a 5 x 5 inch cutout in the desk top. The flanged housing of the operating head covers the opening and is secured to the desk surface by four mounting screws. This mounting arrangement greatly facilitates switch inspection and maintenance since, after removing the four screws, the unit can be pulled up through the desk top. A fabricated unit enclosure is available for separate mounting.

The switch is identified by a Type number which indicates its salient features as follows:

The first digit signifies the number of positions on either side of the "off" position. The second and third digits signify the number of circuits. The subscript "S" is added to the type designation to denote spring return. Thus, for example, the type DM-611 designates a master switch having six points on either side of the "off" position and a total of 11 circuits, and having starwheel action without spring return.

RATING

VOLTAGE	MAX. CONT. CURRENT	MAXIMUM INTERRUPTING CAPACITY IN AMPERES				
		Restive Circuit			Inductive Circuit	
		AC	DC		DC	
	Amperes		With Blowout	Without Blowout	With Blowout	Without Blowout
250	25	25	25	15	2	1
600	25	15	10	6	1.25	.4

CONSTRUCTION

The cam shaft assembly comprises a set of molded cams mounted on a hexagonal shaft supported on both ends by ball-bearings. A bevel gear at the upper end is arranged to mesh with a larger bevel gear secured to the handle shaft and housed in the operating head. Ball bearings at both ends of the handle shaft insure free operation. (See Fig. 2).

The contacts are of the double-break bridging type requiring no shunts. Silver contact buttons

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Printed in U.S.A. (Rep. 6-58)

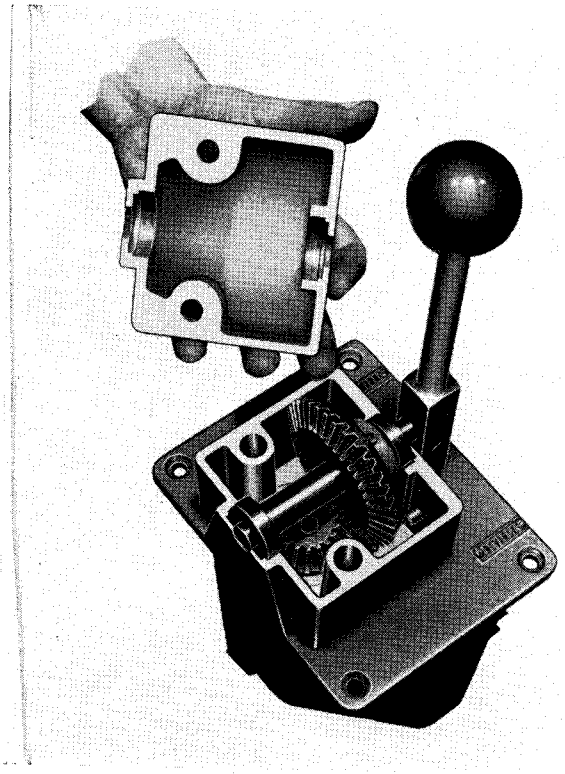


FIG. 2. Type DM Master Switch, Top Housing Removed to Show Gearing

insure low resistance contact. Ample electrical clearance and wiring space are afforded.

Adjustment of the force exerted by the pawl against the starwheel is obtained by a screw adjustment of the pawl spring. (See Fig. 1).

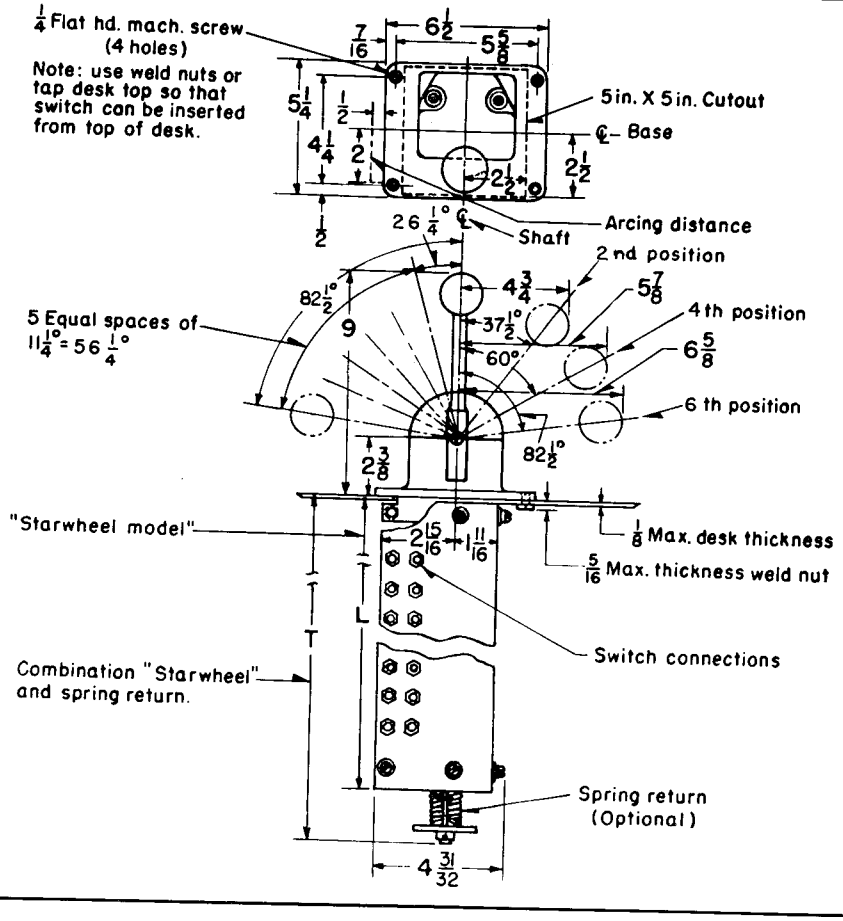
MAINTENANCE

Periodic inspection should be carried out to see that all moving parts are free, assembly bolts and nuts are tight and all connections secure.

The contacts should normally require no servicing during their useful life. Should they become severly pitted, dressing with a fine file is advised. They should be replaced when severly worn.

At periodic intervals the housing cap should be removed by withdrawing the two bolts securing it to the housing, and the internal parts examined. A good grade of grease should be added to the bevel gear teeth when necessary.

Further lubrication will not normally be required. A drop of oil applied to the roller of each cam switch, however, is likely to improve the freedom of operation.



STANDARD SWITCHES		
NUMBER OF SWITCHES	T	L
2	12½	10½
3	12½	10½
4	12½	10½
5	12½	10½
6	12½	10½
7	14¾	12¾
8	14¾	12¾
9	18⅛	16⅛
10	18⅛	16⅛
11	18⅛	16⅛
12	21½	19½
13	21½	19½
14	21½	19½

FIG. 3. Outline Dimensions of Type DM Master Switch

GENERAL • CONSTRUCTION • MAINTENANCE

INSTRUCTIONS

TYPE DM MASTER SWITCH

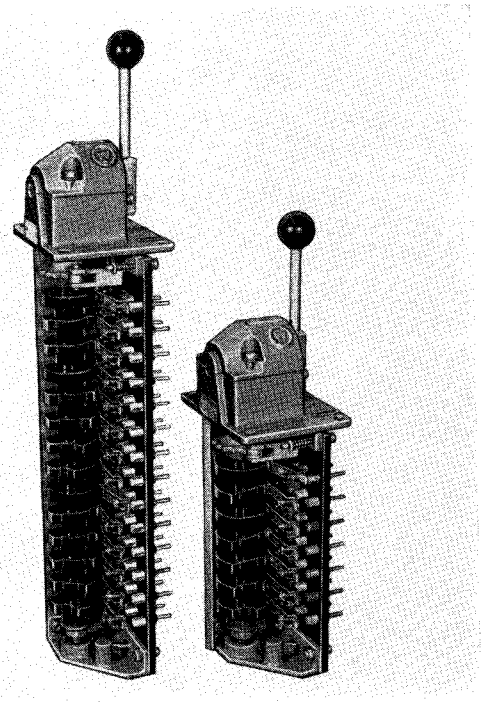


FIG. 1. Type DM Master Switch, 14-Circuit and 7-Circuit

GENERAL

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The switch is available with from one to six positions on either side of the "off" position and from two to fourteen electrical circuits. The cams are cut at the time of purchase to provide a development suiting the intended application. A starwheel with an adjustable follower provides positive positioning of the cam shaft. A spring return device is an optional feature. The cam-operated double break contacts may be equipped with permanent magnet blowouts and arc barriers, if desired, to increase their current interrupting capacity, Arc barriers are used on all switches above 230 volts.

The lower part of the switch is intended for insertion through a 5 x 5 inch cutout in the desk top. The flanged housing of the operating head covers the opening and is secured to the desk surface by four mounting screws. This mounting arrangement greatly facilitates switch inspection and maintenance since, after removing the four screws, the unit can be pulled up through the desk top. A fabricated unit enclosure is available for separate mounting.

The switch is identified by a Type number which indicates its salient features as follows:

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RATING

VOLTAGE	MAX. CONT. CURRENT	MAXIMUM INTERRUPTING CAPACITY IN AMPERES				
		Restive Circuit			Inductive Circuit	
		AC	DC		DC	
	Amperes		With Blowout	Without Blowout	With Blowout	Without Blowout
250	25	25	25	15	2	1
600	25	15	10	6	1.25	.4

CONSTRUCTION

The cam shaft assembly comprises a set of molded cams mounted on a hexagonal shaft supported on both ends by ball-bearings. A bevel gear at the upper end is arranged to mesh with a larger bevel gear secured to the handle shaft and housed in the operating head. Ball bearings at both ends of the handle shaft insure free operation. (See Fig. 2).

The contacts are of the double-break bridging type requiring no shunts. Silver contact buttons

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Printed in U.S.A. (Rep. 6-58)

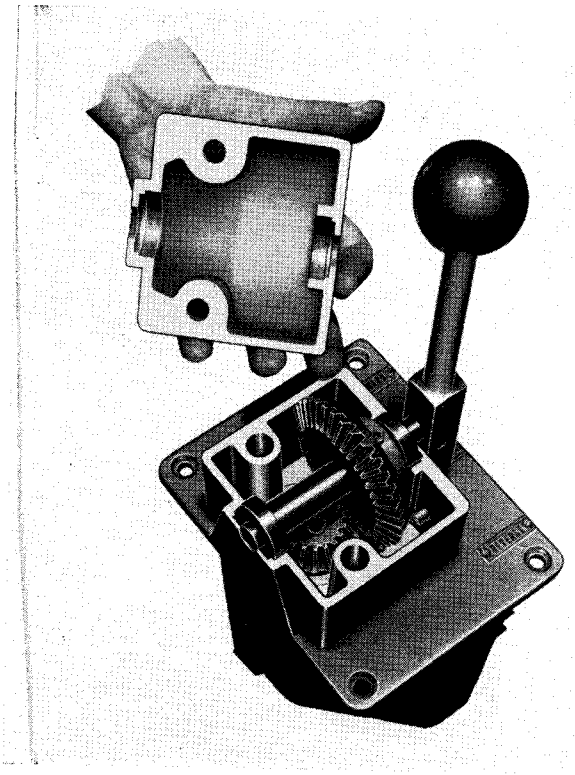

FIG. 2. Type DM Master Switch, Top Housing Removed to Show Gearing

insure low resistance contact. Ample electrical clearance and wiring space are afforded.

Adjustment of the force exerted by the pawl against the starwheel is obtained by a screw adjustment of the pawl spring. (See Fig. 1).

MAINTENANCE

Periodic inspection should be carried out to see that all moving parts are free, assembly bolts and nuts are tight and all connections secure.

The contacts should normally require no servicing during their useful life. Should they become severly pitted, dressing with a fine file is advised. They should be replaced when severly worn.

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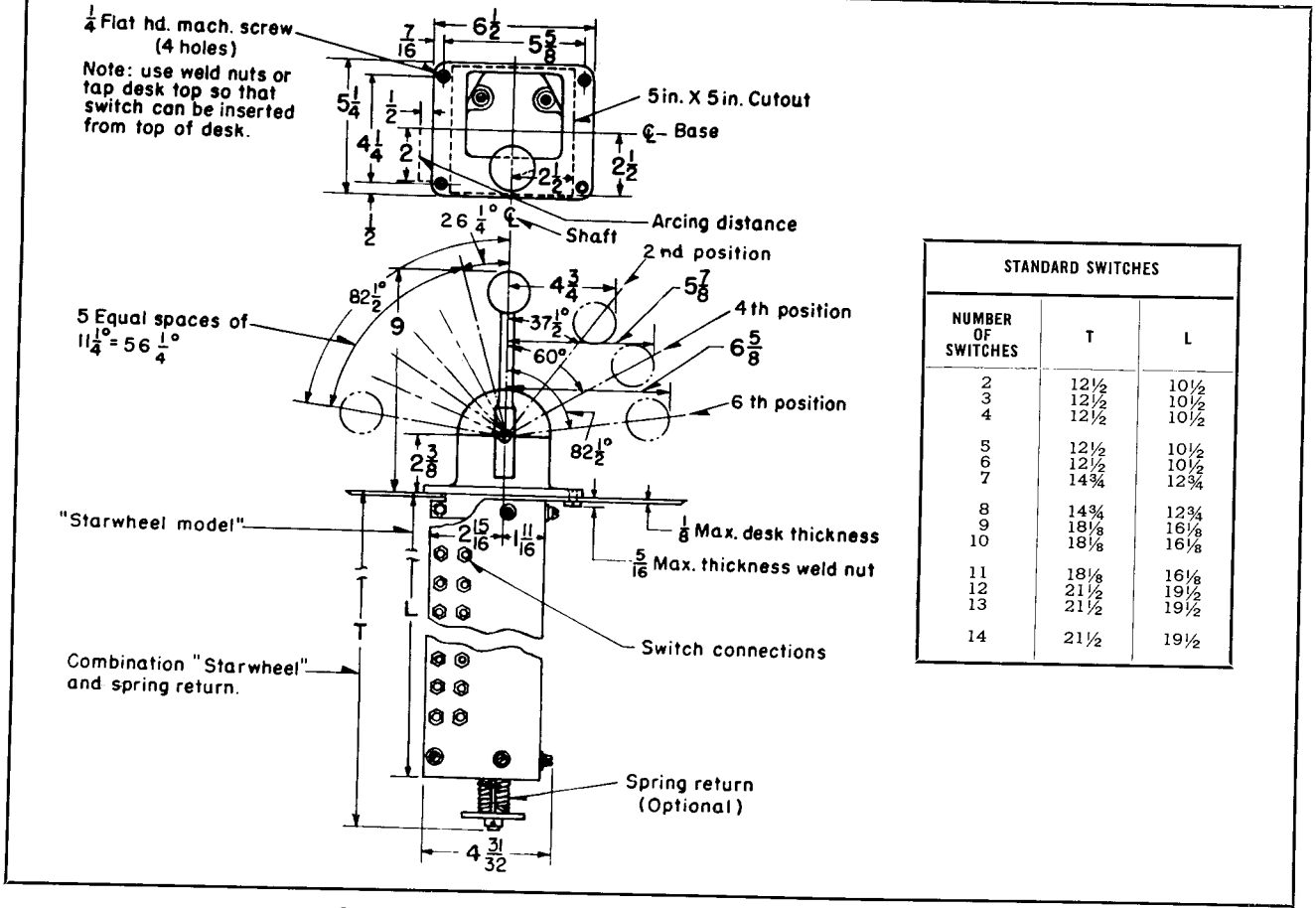
Further lubrication will not normally be required. A drop of oil applied to the roller of each cam switch, however, is likely to improve the freedom of operation.



STANDARD SWITCHES		
NUMBER OF SWITCHES	T	L
2	12½	10½
3	12½	10½
4	12½	10½
5	12½	10½
6	12½	10½
7	14¾	12¾
8	14¾	12¾
9	18⅛	16⅛
10	18⅛	16⅛
11	18⅛	16⅛
12	21½	19½
13	21½	19½
14	21½	19½

FIG. 3. Outline Dimensions of Type DM Master Switch

GENERAL • CONSTRUCTION • MAINTENANCE

INSTRUCTIONS

TYPE DM MASTER SWITCH

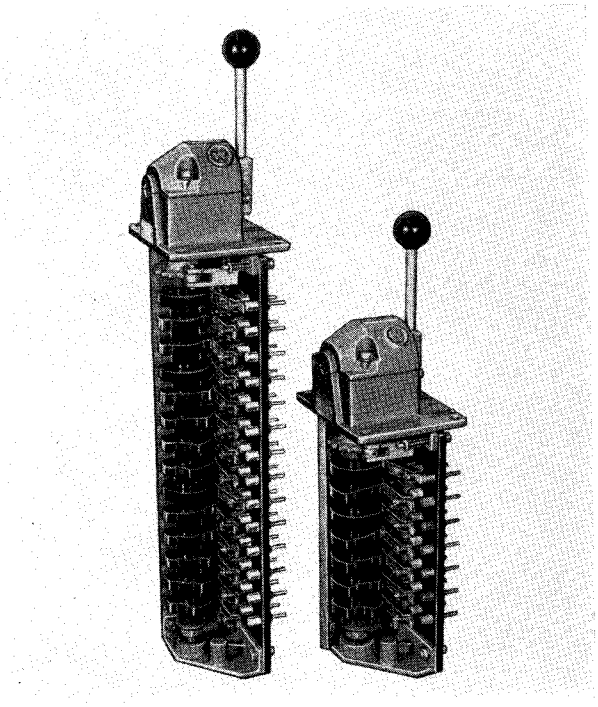


FIG. 1. Type DM Master Switch, 14-Circuit and 7-Circuit

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The lower part of the switch is intended for insertion through a 5 x 5 inch cutout in the desk top. The flanged housing of the operating head covers the opening and is secured to the desk surface by four mounting screws. This mounting arrangement greatly facilitates switch inspection and maintenance since, after removing the four screws, the unit can be pulled up through the desk top. A fabricated unit enclosure is available for separate mounting.

The switch is identified by a Type number which indicates its salient features as follows:

The first digit signifies the number of positions on either side of the "off" position. The second and third digits signify the number of circuits. The subscript "S" is added to the type designation to denote spring return. Thus, for example, the type DM-611 designates a master switch having six points on either side of the "off" position and a total of 11 circuits, and having starwheel action without spring return.

RATING

VOLTAGE	MAX. CONT. CURRENT	MAXIMUM INTERRUPTING CAPACITY IN AMPERES				
		Restive Circuit			Inductive Circuit	
		AC	DC		DC	
	Amperes		With Blowout	Without Blowout	With Blowout	Without Blowout
250	25	25	25	15	2	1
600	25	15	10	6	1.25	.4

CONSTRUCTION

The cam shaft assembly comprises a set of molded cams mounted on a hexagonal shaft supported on both ends by ball-bearings. A bevel gear at the upper end is arranged to mesh with a larger bevel gear secured to the handle shaft and housed in the operating head. Ball bearings at both ends of the handle shaft insure free operation. (See Fig. 2).

The contacts are of the double-break bridging type requiring no shunts. Silver contact buttons

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Printed in U.S.A. (Rep. 6-58)

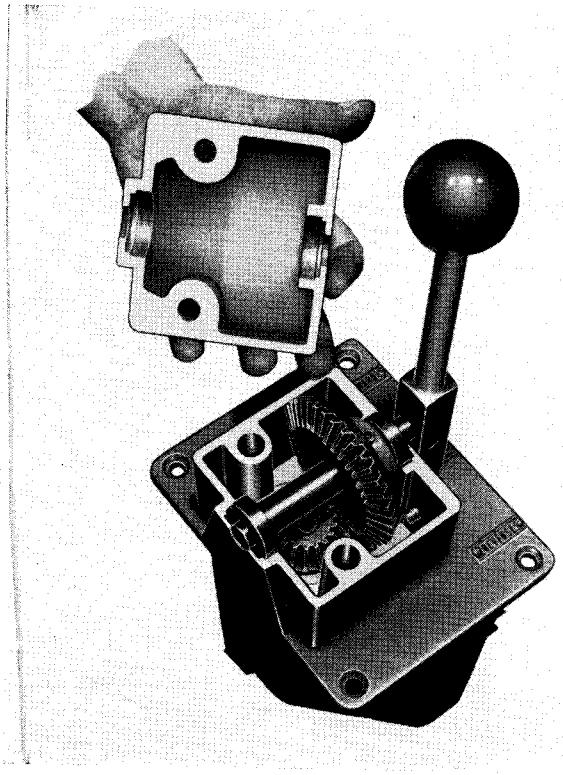

FIG. 2. Type DM Master Switch, Top Housing Removed to Show Gearing

insure low resistance contact. Ample electrical clearance and wiring space are afforded.

Adjustment of the force exerted by the pawl against the starwheel is obtained by a screw adjustment of the pawl spring. (See Fig. 1).

MAINTENANCE

Periodic inspection should be carried out to see that all moving parts are free, assembly bolts and nuts are tight and all connections secure.

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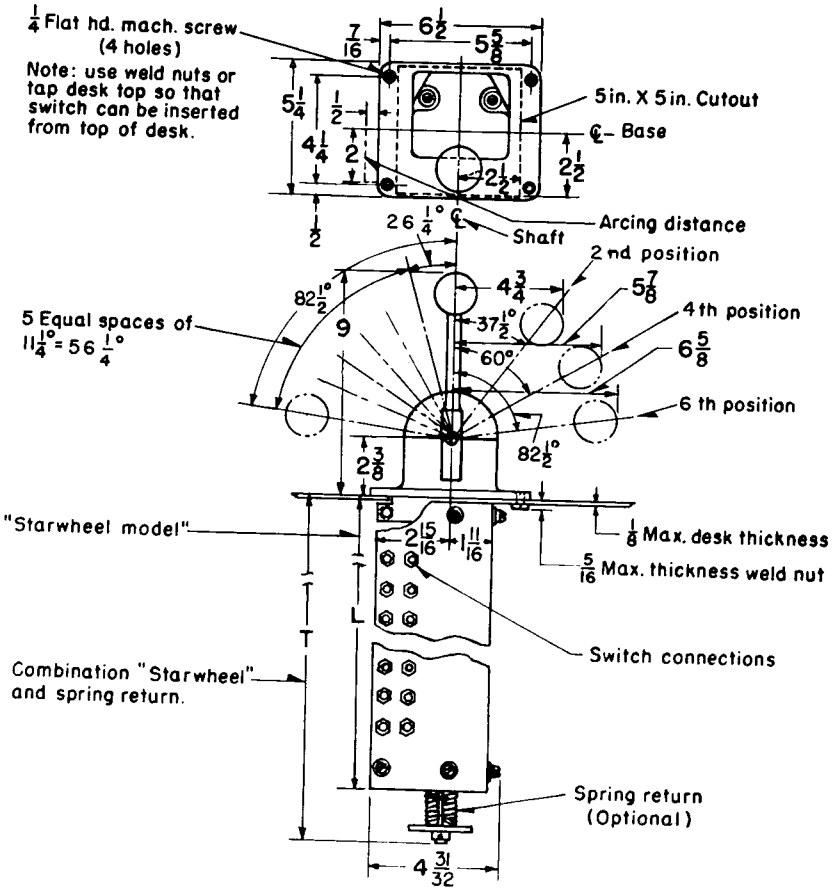
Further lubrication will not normally be required. A drop of oil applied to the roller of each cam switch, however, is likely to improve the freedom of operation.



STANDARD SWITCHES		
NUMBER OF SWITCHES	T	L
2	12½	10½
3	12½	10½
4	12½	10½
5	12½	10½
6	12½	10½
7	14¾	12¾
8	14¾	12¾
9	18⅛	16⅛
10	18⅛	16⅛
11	18⅛	16⅛
12	21½	19½
13	21½	19½
14	21½	19½

FIG. 3. Outline Dimensions of Type DM Master Switch

GENERAL • CONSTRUCTION • MAINTENANCE

INSTRUCTIONS

TYPE DM MASTER SWITCH

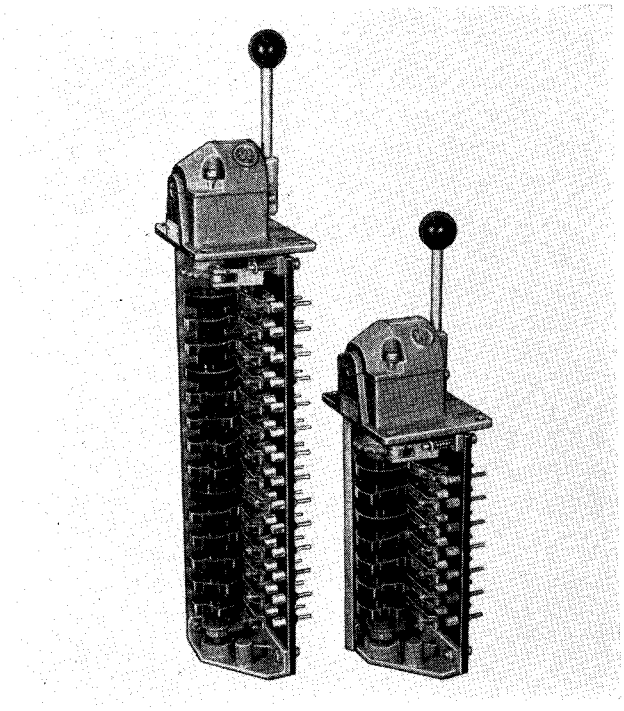


FIG. 1. Type DM Master Switch, 14-Circuit and 7-Circuit

GENERAL

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RATING

VOLTAGE	MAX. CONT. CURRENT	MAXIMUM INTERRUPTING CAPACITY IN AMPERES				
		Restive Circuit			Inductive Circuit	
		AC	DC		DC	
	Amperes		With Blowout	Without Blowout	With Blowout	Without Blowout
250	25	25	25	15	2	1
600	25	15	10	6	1.25	.4

CONSTRUCTION

The cam shaft assembly comprises a set of molded cams mounted on a hexagonal shaft supported on both ends by ball-bearings. A bevel gear at the upper end is arranged to mesh with a larger bevel gear secured to the handle shaft and housed in the operating head. Ball bearings at both ends of the handle shaft insure free operation. (See Fig. 2).

The contacts are of the double-break bridging type requiring no shunts. Silver contact buttons

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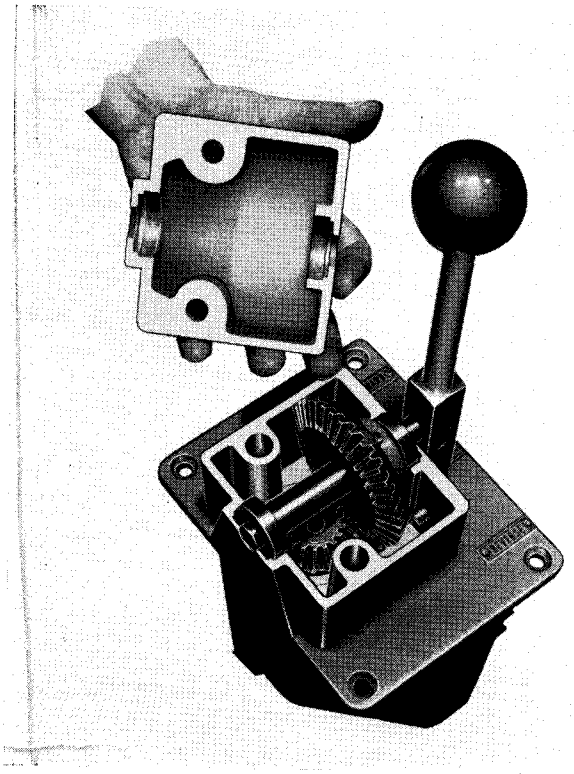

FIG. 2. Type DM Master Switch, Top Housing Removed to Show Gearing

insure low resistance contact. Ample electrical clearance and wiring space are afforded.

Adjustment of the force exerted by the pawl against the starwheel is obtained by a screw adjustment of the pawl spring. (See Fig. 1).

MAINTENANCE

Periodic inspection should be carried out to see that all moving parts are free, assembly bolts and nuts are tight and all connections secure.

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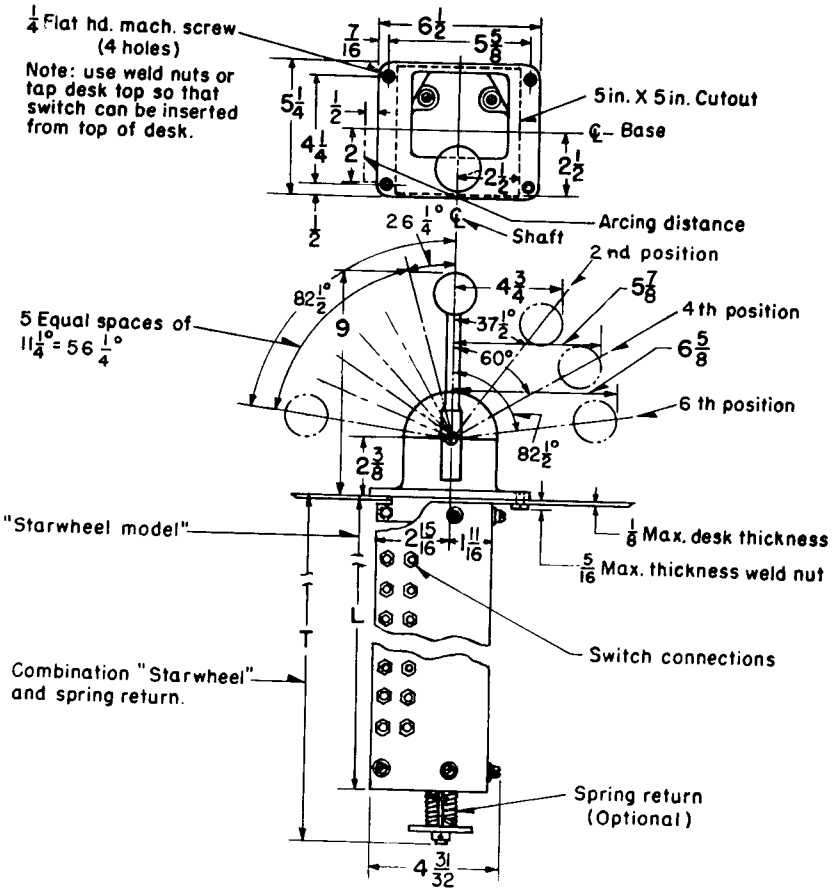

STANDARD SWITCHES		
NUMBER OF SWITCHES	T	L
2	12½	10½
3	12½	10½
4	12½	10½
5	12½	10½
6	12½	10½
7	14¾	12¾
8	14¾	12¾
9	18⅛	16⅛
10	18⅛	16⅛
11	18⅛	16⅛
12	21½	19½
13	21½	19½
14	21½	19½

FIG. 3. Outline Dimensions of Type DM Master Switch

GENERAL • CONSTRUCTION • MAINTENANCE

INSTRUCTIONS

TYPE DM MASTER SWITCH

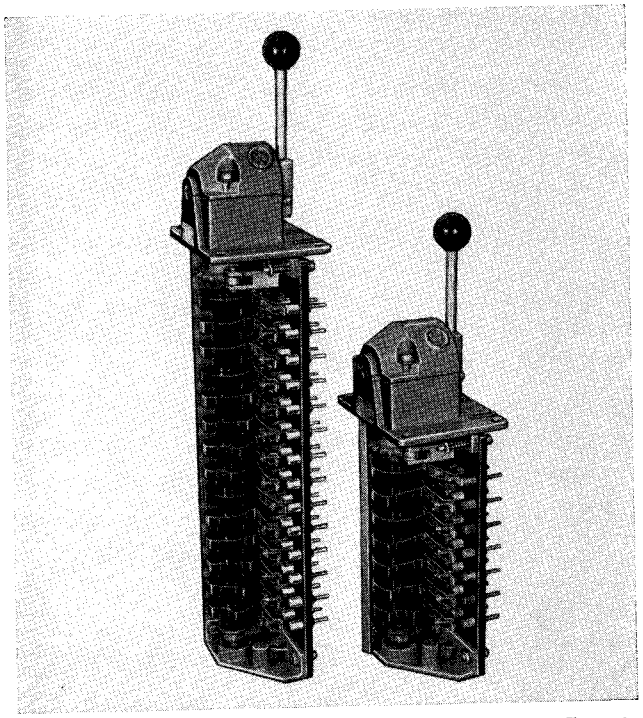

FIG. 1. Type DM Master Switch, 14-Circuit and 7-Circuit

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The switch is available with from one to six positions on either side of the "off" position and from two to fourteen electrical circuits. The cams are cut at the time of purchase to provide a development suiting the intended application. A starwheel with an adjustable follower provides positive positioning of the cam shaft. A spring return device is an optional feature. The cam-operated double break contacts may be equipped with permanent magnet blowouts and arc barriers, if desired, to increase their current interrupting capacity, Arc barriers are used on all switches above 230 volts.

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RATING

VOLTAGE	MAX. CONT. CURRENT	MAXIMUM INTERRUPTING CAPACITY IN AMPERES				
		Resistive Circuit			Inductive Circuit	
		AC	DC		DC	
	Amperes		With Blowout	Without Blowout	With Blowout	Without Blowout
250	25	25	25	5	2	1
600	25	15	10	1	1	.4

CONSTRUCTION

The cam shaft assembly comprises a set of molded cams mounted on a hexagonal shaft supported on both ends by ball-bearings. A bevel gear at the upper end is arranged to mesh with a larger bevel gear secured to the handle shaft and housed in the operating head. Ball bearings at both ends of the handle shaft insure free operation. (See Fig. 2).

The contacts are of the double-break bridging type requiring no shunts. Silver contact buttons

NEW INFORMATION
Printed in U.S.A (Reprinted 3-66)

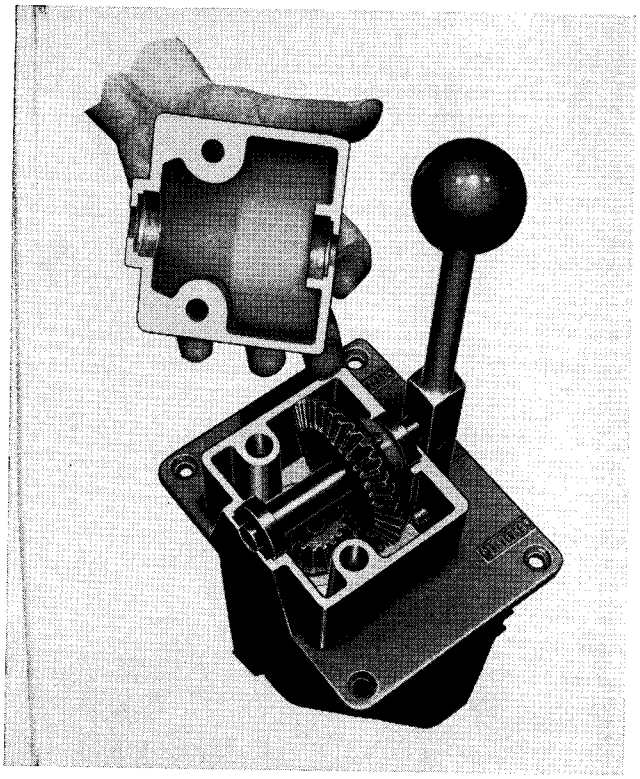

FIG. 2. Type DM Master Switch, Top Housing Removed to Show Gearing

insure low resistance contact. Ample electrical clearance and wiring space are afforded.

Adjustment of the force exerted by the pawl against the starwheel is obtained by a screw adjustment of the pawl spring. (See Fig. 1).

MAINTENANCE

Periodic inspection should be carried out to see that all moving parts are free, assembly bolts and nuts are tight and all connections secure.

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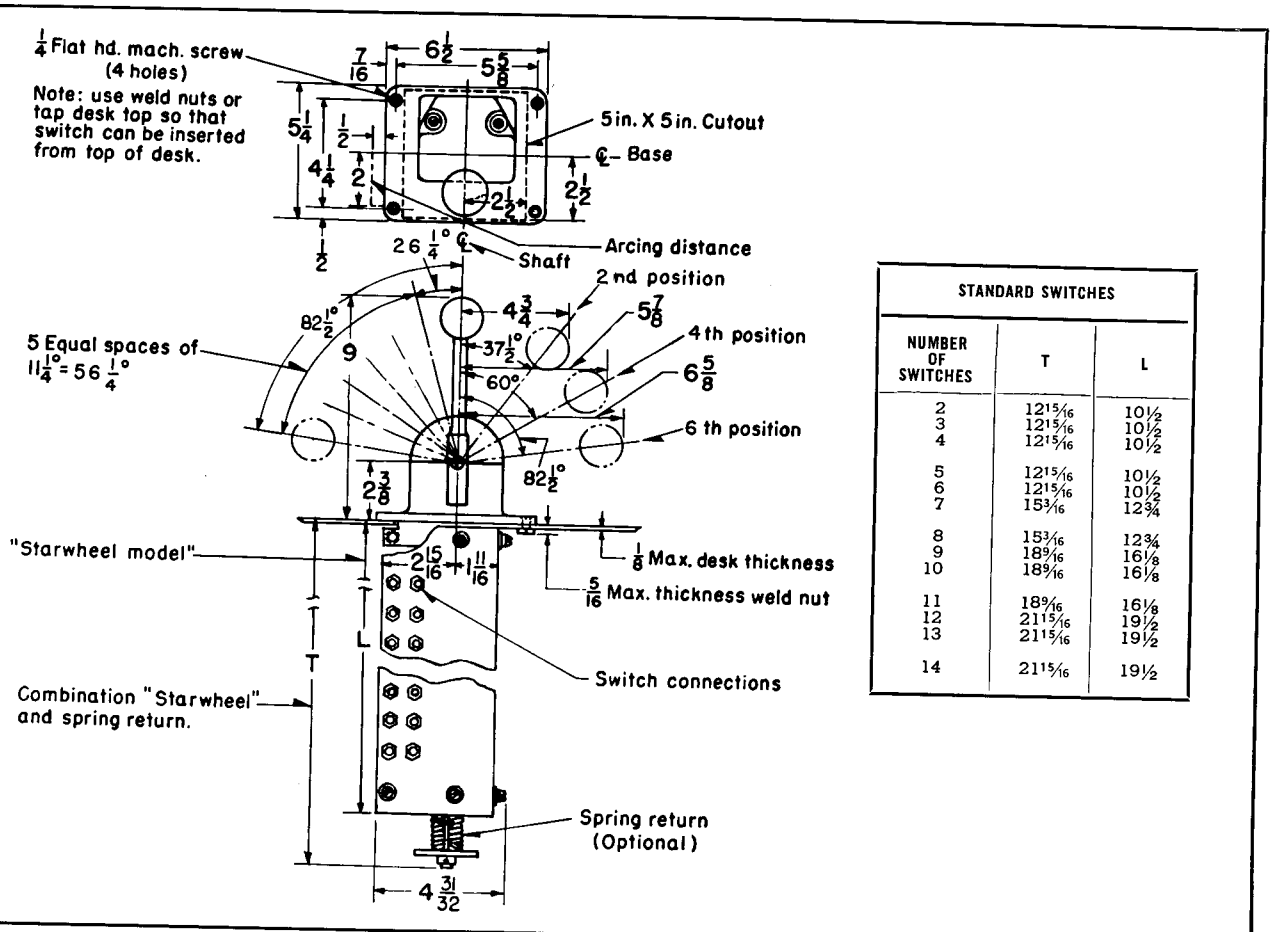


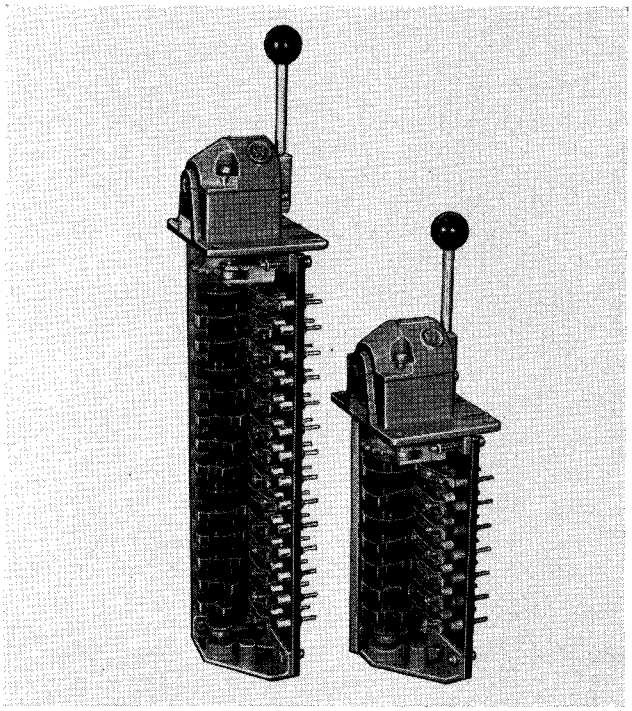
STANDARD SWITCHES		
NUMBER OF SWITCHES	T	L
2	12 15/16	10½
3	12 15/16	10½
4	12 15/16	10½
5	12 15/16	10½
6	12 15/16	10½
7	15 3/16	12¾
8	15 3/16	12¾
9	18 9/16	16⅛
10	18 9/16	16⅛
11	18 9/16	16⅛
12	21 15/16	19½
13	21 15/16	19½
14	21 15/16	19½

FIG. 3. Outline Dimensions of Type DM Master Switch

GENERAL • CONSTRUCTION • MAINTENANCE

INSTRUCTIONS

TYPE DM MASTER SWITCH



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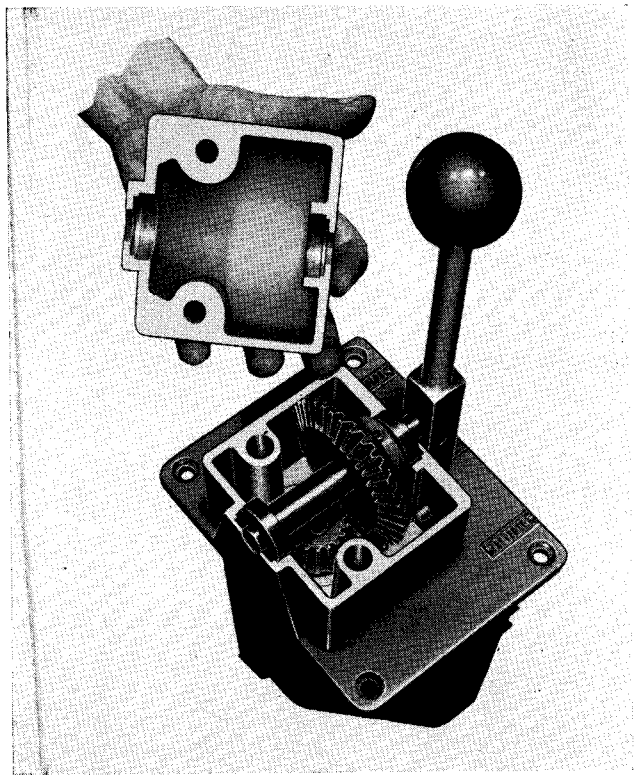
RATING

VOLTAGE	MAX. CONT. CURRENT	MAXIMUM INTERRUPTING CAPACITY IN AMPERES				
		Restive Circuit			Inductive Circuit	
		AC	DC		DC	
	Amperes		With Blowout	Without Blowout	With Blowout	Without Blowout
250	25	25	25	15	2	1
600	25	15	10	6	1.25	.4

CONSTRUCTION

The cam shaft assembly comprises a set of molded cams mounted on a hexagonal shaft supported on both ends by ball-bearings. A bevel gear at the upper end is arranged to mesh with a larger bevel gear secured to the handle shaft and housed in the operating head. Ball bearings at both ends of the handle shaft insure free operation. (See Fig. 2).

The contacts are of the double-break bridging type requiring no shunts. Silver contact buttons



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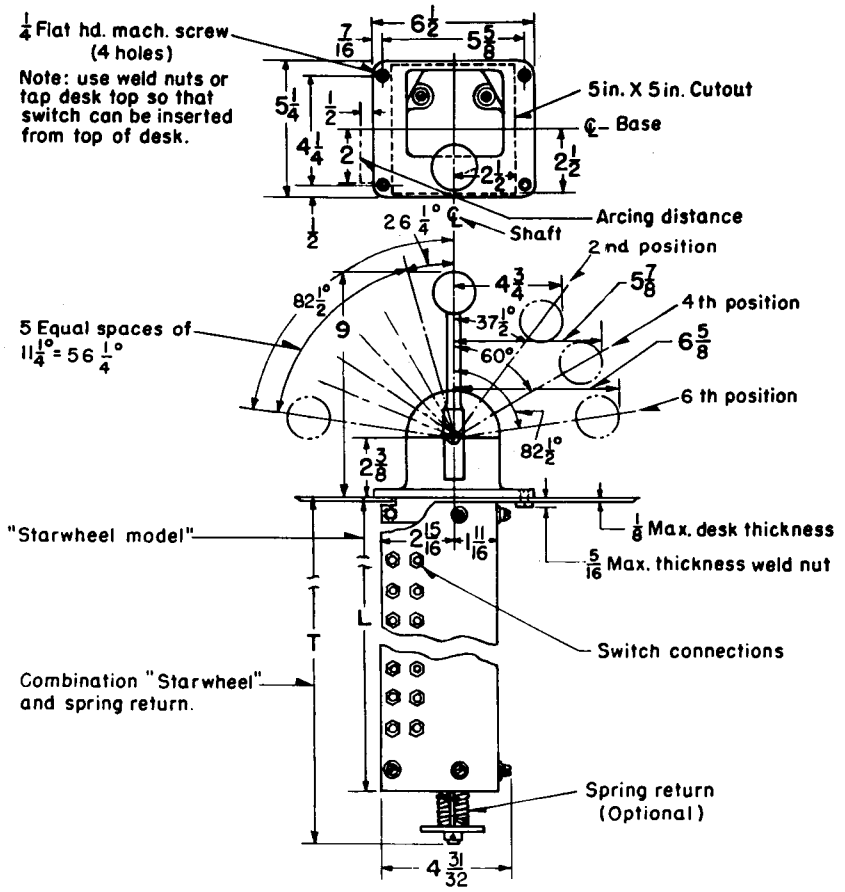
At periodic intervals the housing cap should be removed by withdrawing the two bolts securing it to the housing, and the internal parts examined. A good grade of grease should be added to the bevel gear teeth when necessary.

Further lubrication will not normally be required. A drop of oil applied to the roller of each cam switch, however, is likely to improve the freedom of operation.



STANDARD SWITCHES		
NUMBER OF SWITCHES	T	L
2	12½	10½
3	12½	10½
4	12½	10½
5	12½	10½
6	12½	10½
7	14¾	12¾
8	14¾	12¾
9	18⅛	16⅛
10	18⅛	16⅛
11	18⅛	16⅛
12	21½	19½
13	21½	19½
14	21½	19½

FIG. 3. Outline Dimensions of Type DM Master Switch