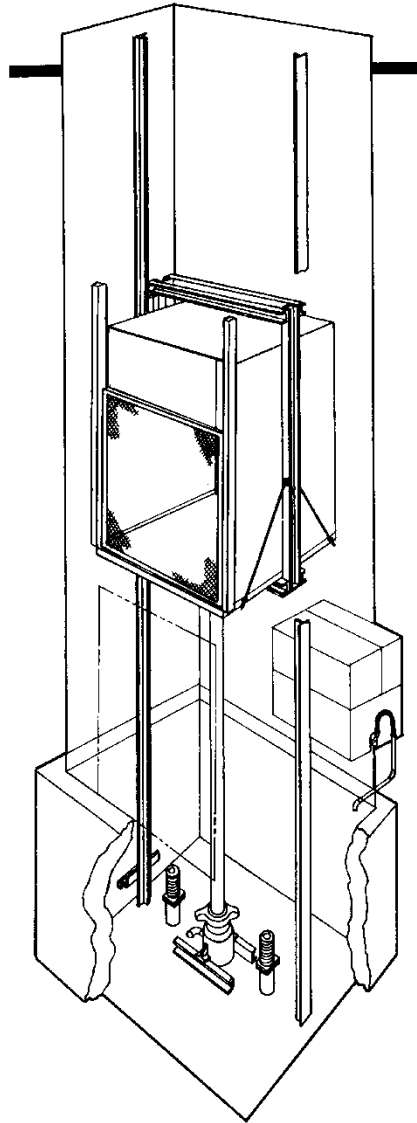


ESCO Hydraulic Elevator

Spare Parts Leaflet

40-ESCO

January 6, 2016 / Page 1 of 32



OTIS

SERVICE ENGINEERING
Otis Elevator Company
Bloomfield, Connecticut USA

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Leaflet Description

This leaflet provides spare parts information for ESCO hydraulic elevators.

Leaflet Revisions

Date Revised	Subject Matter Expert	Reason for Revision
March 1991	Troy Chicoine	New leaflet
April 1, 2001	Troy Chicoine	Update part numbers
November 13, 2008	Troy Chicoine	Leaflet renumbered and placed under SPL category 40 instead of 600
January 6, 2016	Troy Chicoine	Updated document template; Updated p. 32

Related Drawings

Drawing No.	Title	Drawing No.	Title

Related Documents

Document ID	Title
TIP 60.0-1	ESCO Elevator Spare Parts Availability

Subject Matter Expert

Name	Department
Troy Chicoine	OSC Service Engineering

About Spare Parts Leaflets...

This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as "special" or "custom" are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPs, Field Education Articles, Construction Letters, etc. for further information.

If you have any suggestions about this document, please contact the subject matter expert listed on this page.

ESCO Elevators, Inc. produced elevator components and complete hydraulic elevator systems in Fort Worth, Texas from 1932 until 1998.




























In 1976, Otis began to use ESCO as a supplier for hydraulic passenger and elevator systems to supplement Otis production. These elevators were sold as Otis units and did not bear the ESCO name. Although this practice was only in effect for a limited time, Otis occasionally used ESCO equipment in its contracts into 1990s.

When ESCO closed its doors in 1998, the Otis Service Center purchased the engineering and design rights to ESCO's elevators. This was done in order to preserve our ability to maintain those elevators originally sold under the Otis name, as well as other ESCO units that had come under Otis service.

The parts listed in this spare parts leaflet include those for which information could be retrieved from ESCO's records. Since it is difficult to determine what usage there will be on many parts, not all parts listed in this leaflet will be initially stocked at OSC. For parts where some usage is expected—for example, plastic molded selector parts and some relays—parts are in stock.

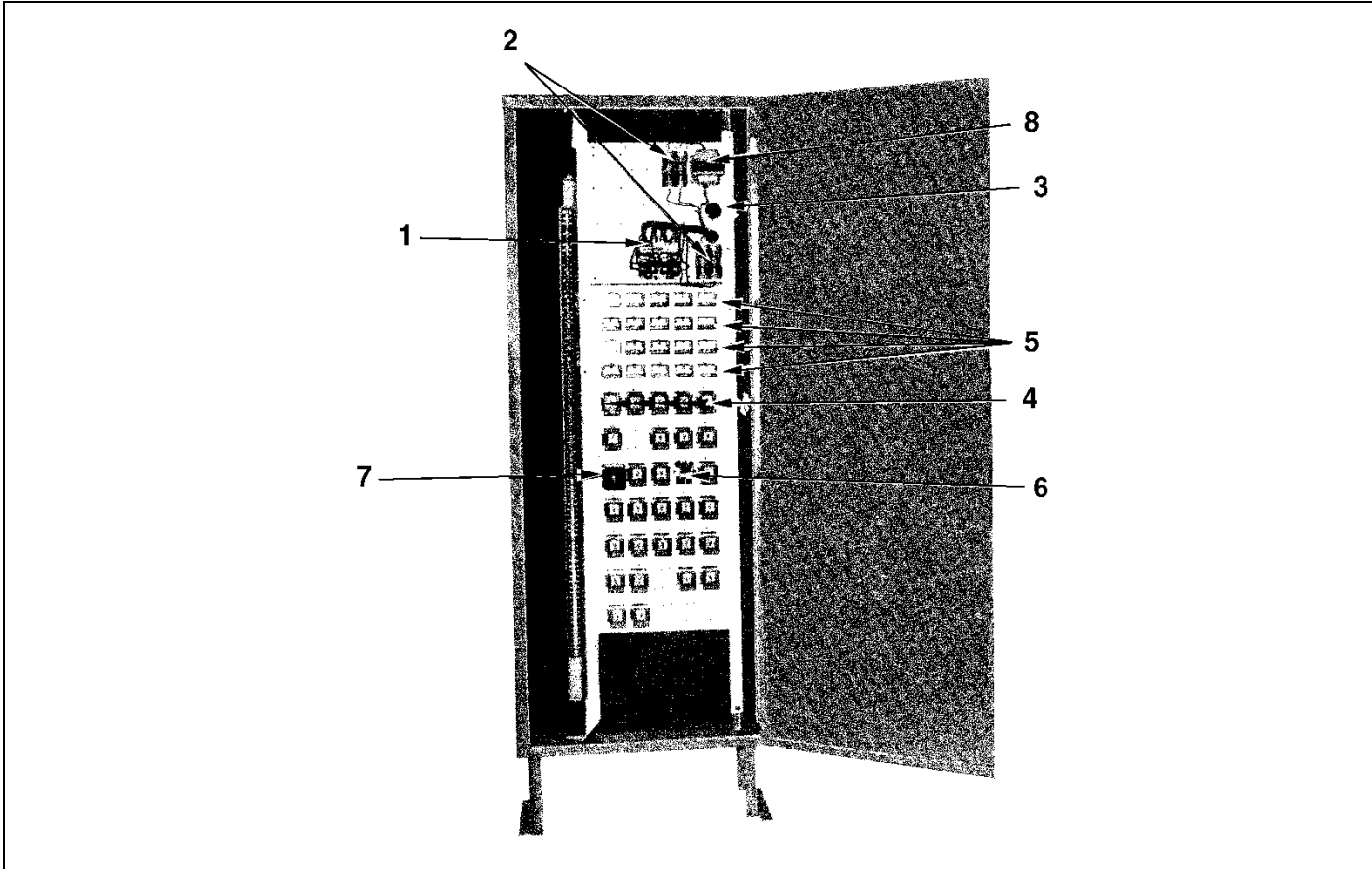
If there are other parts commonly used on ESCO equipment that are not listed in this leaflet, please contact your customer service representative with as much information about the component as possible. Information regarding the ESCO parts number, any identifiable manufacturer and part number, where the part is used, and on what type of system would all be helpful in locating a source for the part and correctly locating it within this leaflet.

Some elevator components—for example, valves, mufflers, and the flex hose connection on the machine—have been purposely omitted from this leaflet for reasons of obsolescence, liability, or high cost to reproduce. Refer to TIP 60.0-1, ESCO Elevator Spare Parts Availability, for recommendations on these components.

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 p. 8	Car Top Control Station
 p. 9	Magnetic Starters, Furnas ES14DA-Size1
 p. 10	Reversing Magnetic Starters, Furnas ES22DB-Size1
 p. 11	Magnetic Starters, Furnas ES14DF-Size1
 p. 12	Magnetic Starters, Furnas ES14FB-Size2
 p. 13	Reversing Starters, Furnas ES22GFF-Size2
 p. 14	Magnetic Starters, Furnas ES14HB-Size3
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 p. 16	Door Reversing Switch, Allen Bradley Series A and B Construction
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 p. 29	Swivel Guide Shoes
 p. 30	Tank Heater
 p. 31	Car Inspection Station and Pit Stop Switch
 p. 32	Jacketed Cable, Cable Seal, and Piston Seal

Controller

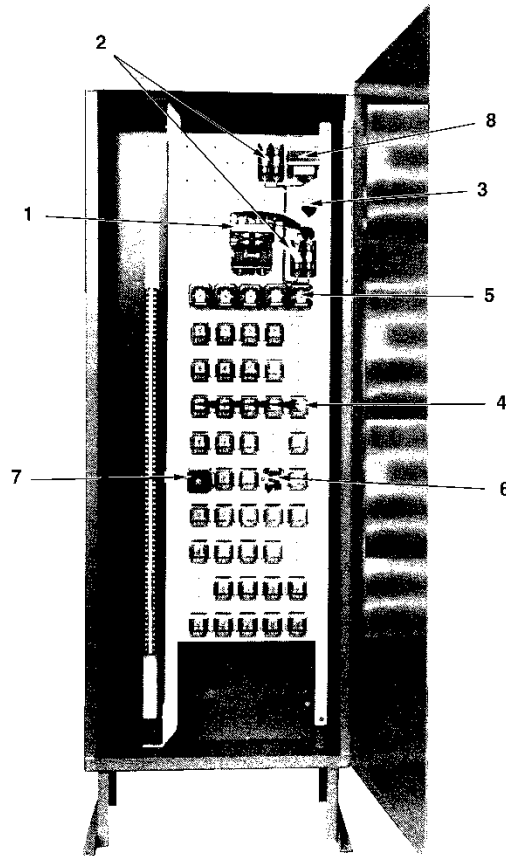
40-ESCO



REF. NO.	PART or ML	DESCRIPTION
1	3-375-015 ES3-375-005	Contactor, Door Reversing Switch
2	ESCO-3-366-001 375H3	Fuse, 3 Amp
3	3-374-012 ESCO-3-374-001	Rectifier
4	ESCO-3-370-063	Relay, Control
5	3-370-074 ESCO-3-370-076	Relay, 4-Pole
*	3-371-034 AAA617K13	Resistor, 1500 Ohms
*	3-371-007 AAA617K10	Resistor, 250 Ohms
6	ESCO-3-367-033	Timer, Low Oil
7	3-367-018 ESCO-3-367-037	Timer, System
8	ESCO-3-368-020	Transformer, Signal

* Part not shown. Resistors located on back side of panel.

NOTE: Controller arrangements vary according to individual job requirements. Replacement parts are identified, but their location within the controller may not be as shown.



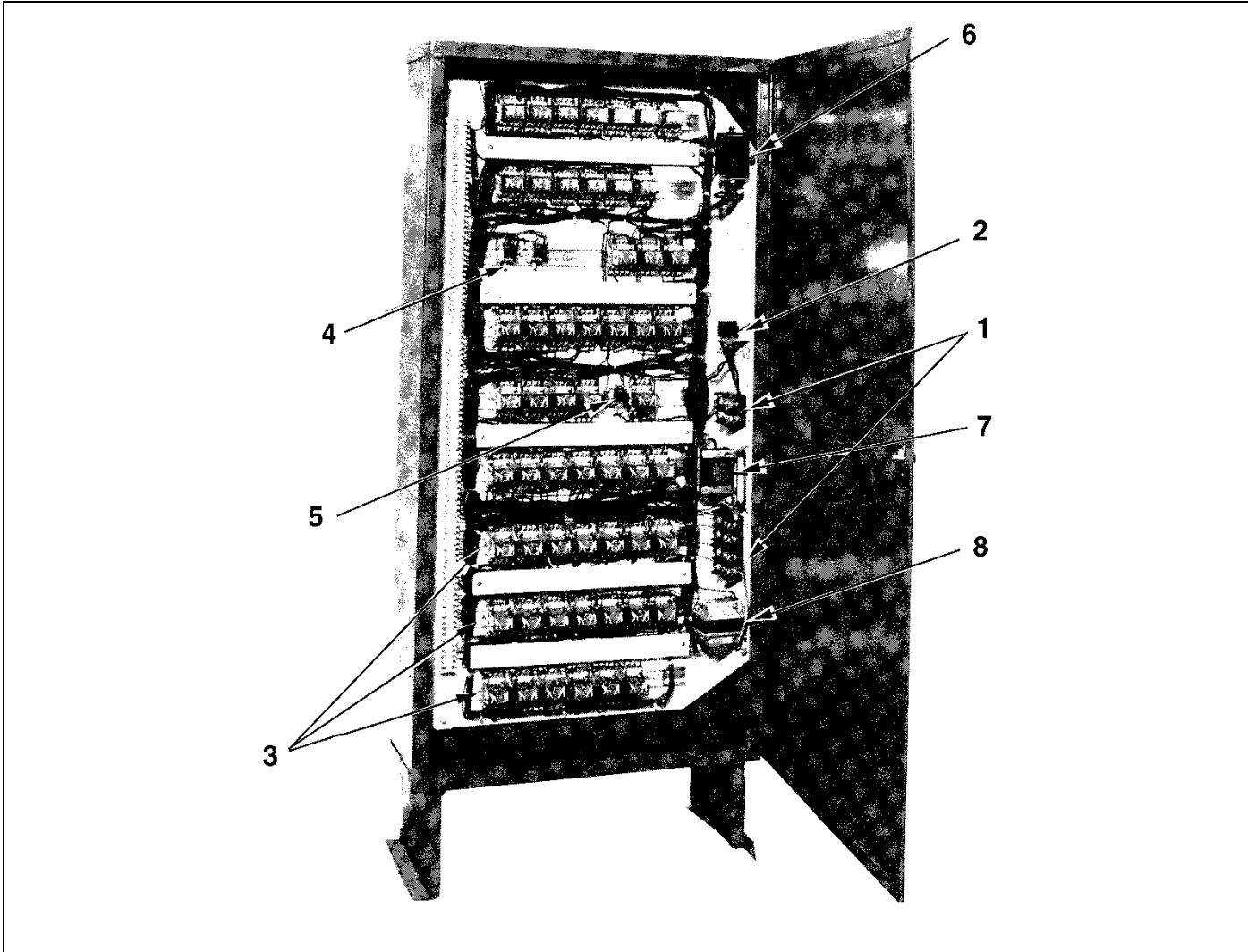
REF. NO.	PART or ML	DESCRIPTION
1	3-375-015 ES3-375-005	Contactora, Door Reversing Switch
2	ESCO-3-366-001 375H3	Fuse, 3 Amp
3	3-374-012 ESCO-3-374-001	Rectifier
4	ESCO-3-370-063	Relay, Control
5	ESCO-3-370-065	Relay, Latching
*	3-371-031 AAA617K13	Resistor, 1500 Ohms
*	3-371-007 AAA617K10	Resistor, 200 Ohms
6	ESCO-3-367-033	Timer, Low Oil
7	3-367-018 ESCO-3-367-037	Timer, System
8	ESCO-3-368-020	Transformer, Signal

* Part not shown. Resistors located on back side of panel.

NOTE: Controller arrangements vary according to individual job requirements. Replacement parts are identified, but their location within the controller may not be as shown.

Controller—Front Wired

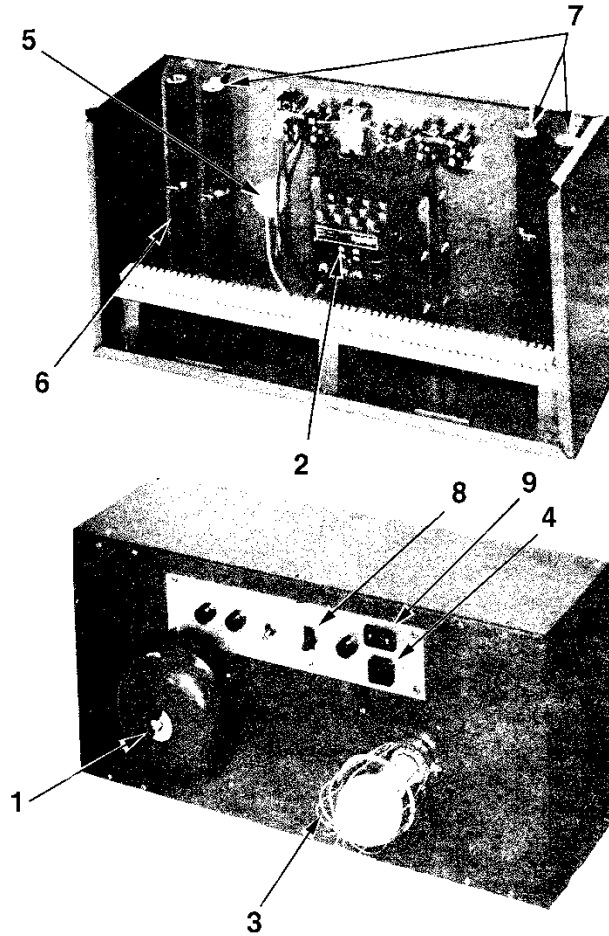
40-ESCO



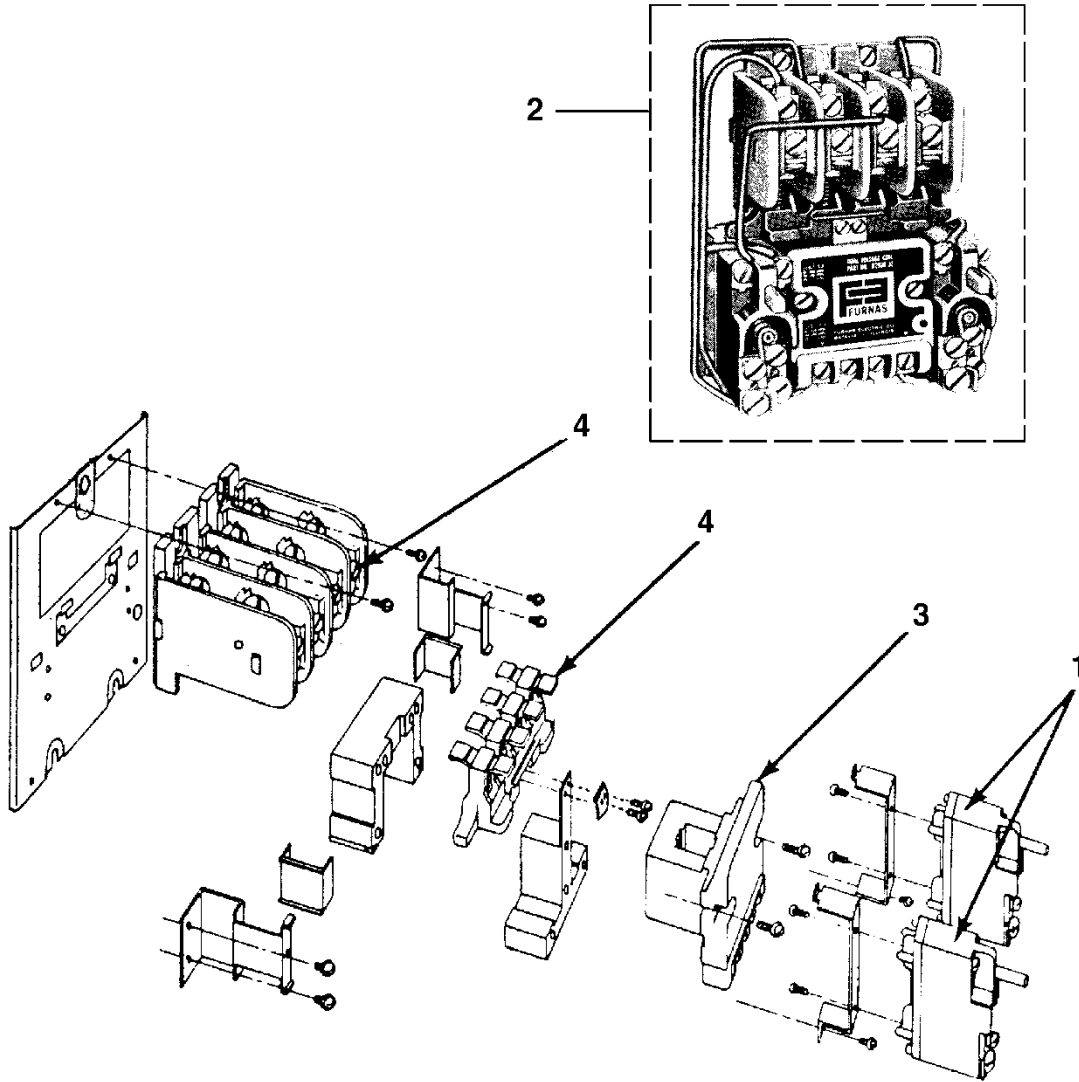
REF. NO.	PART or ML	DESCRIPTION
1	ESCO-3-366-001 375H3	Fuse, 3 Amp
2	3-374-012 ESCO-3-374-001	Rectifier
3	ESCO-3-370-076	Relay, 4-Pole
4	3-367-027 ESCO-3-367-035	Timer, Hall Lantern Sequence, 1/2 Sec.
5	3-367-023 ESCO-3-367-033	Timer, Low Oil, 120 Sec.
6	3-367-018 ESCO-3-367-037	Timer, System
7	ESCO-3-368-025	Transformer, Hall Lantern (50—220/115 V)
8	ESCO-3-368-020	Transformer, Signal (115/10 V)

NOTE: Controller arrangements vary according to individual job requirements. Replacement parts are identified, but their location within the controller may not be as shown.

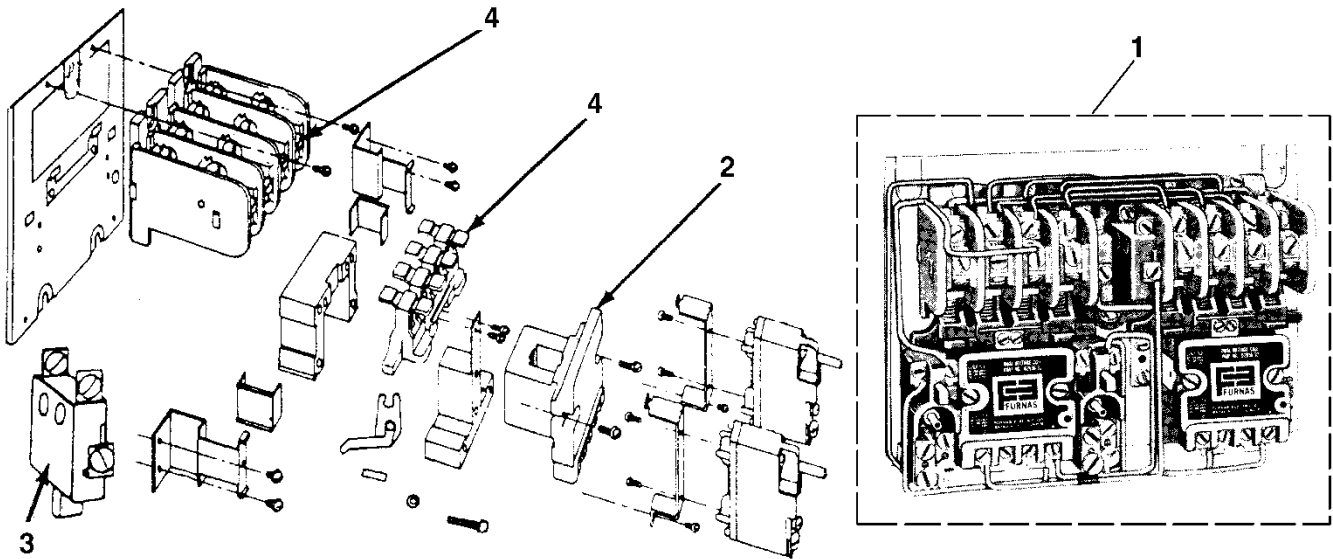
Car Top Control Station



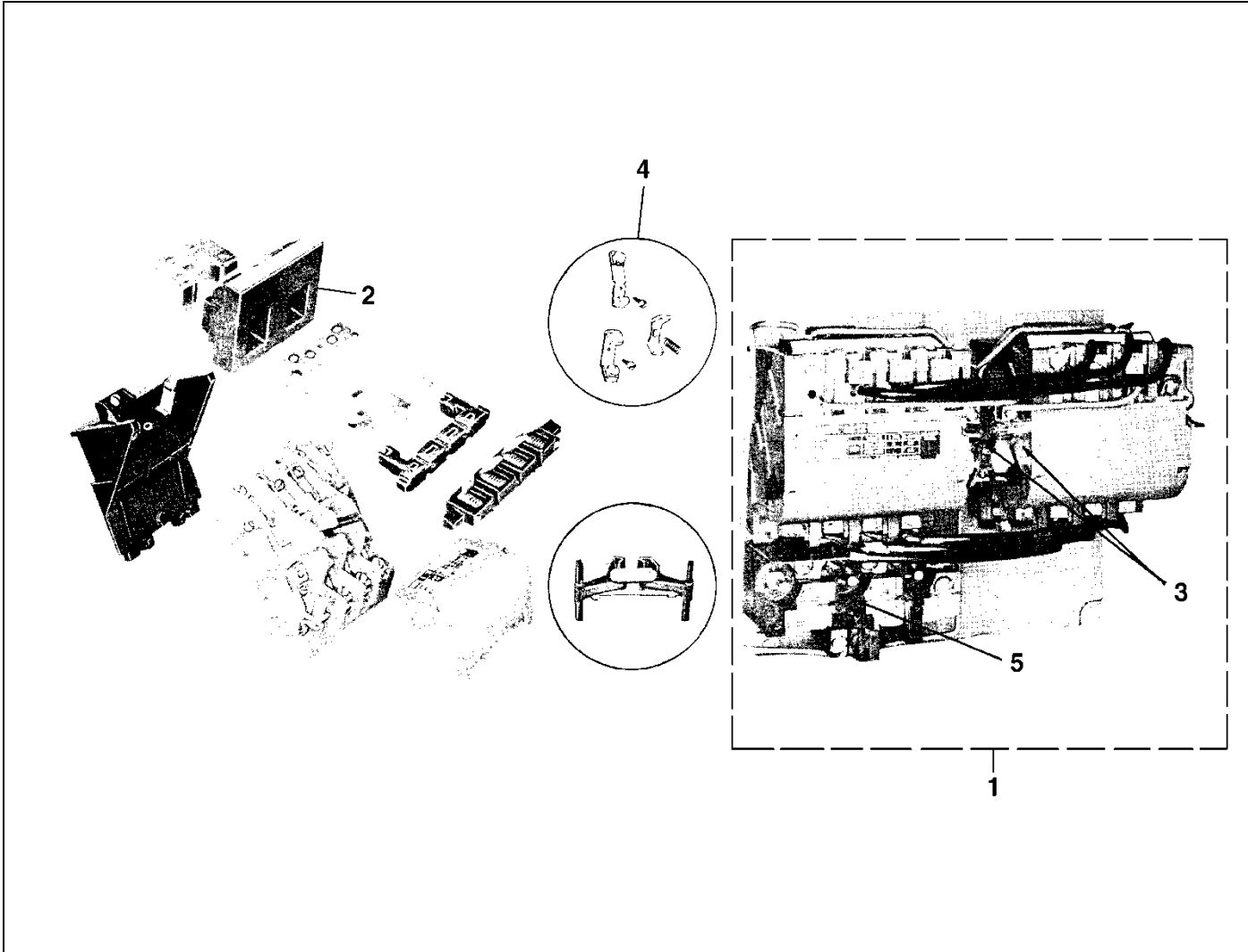
REF. NO.	PART or ML	DESCRIPTION
1	ESCO-3-329-005 AAA311E1	Bell, Alarm (used w/emergency light)
2	3-375-015 ES3-375-005	Contactora, Door Reversing
3	3-041-005 AAA384ABX1	Guard, Light
4	6599R2	Outlet, Power
5	3-435-004 AAA618BD1	Receptacle, Light
6	3-371-031 AAA617K13	Resistor, 1500 Ohms
7	3-371-007 AAA617K10	Resistor, 250 Ohms
8	ESCO-3-376-172	Switch, Emergency Stop
9	ESCO-3-376-141	Switch, On/Off



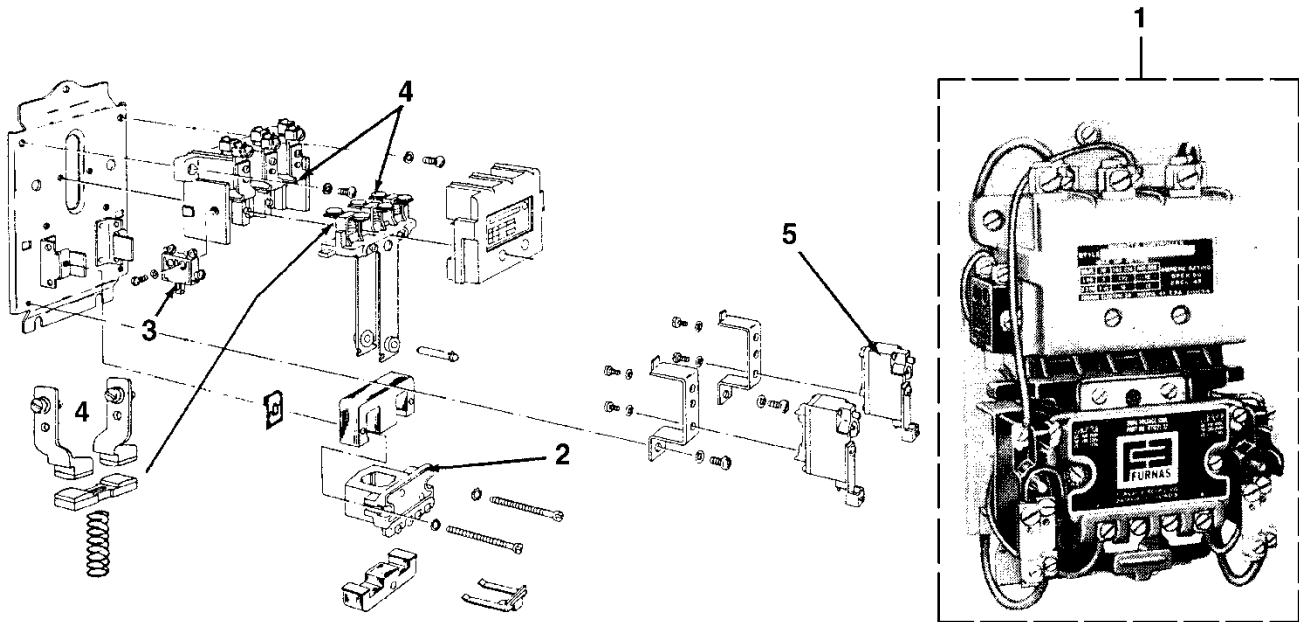
REF. NO.	PART or ML	DESCRIPTION		
1	ES48FA17A-R	Assembly, Bi-Metallic Overload	Non-Compensated	Right
	ES48FA17A-L			Left
	ES48FA18A-R		Amb. Temp. Compensated	Right
	ES48FA18A-L			Left
	ES48DB11A		Assembly, Thermal Overload (melting alloy) Standard Trip	
2	ES14DA-Size1	Assembly, Magnetic Starter Complete		
3	ESD02936-31	Coil, 50/60 Cycles	110/208–220 V	
	ESD02936-32		208–220 V	
	ESD02936-33		550 V	
4	ES75CA14	Pole, Electrical Interlock	One Complete Pole, Contacts and Spring	
	ES75DA14	Pole, Power		



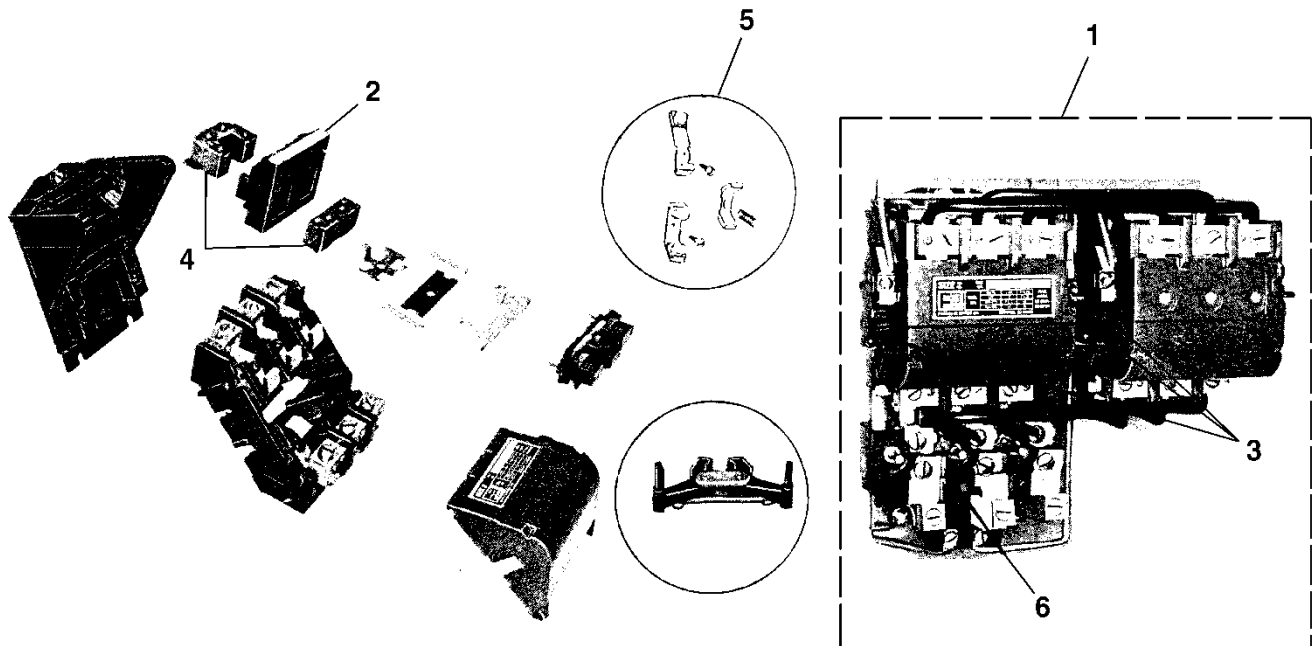
REF. NO.	PART or ML	DESCRIPTION	
1	ES22DB-SIZE1	Assembly, Reversing Magnetic Starter, Complete	
2	ESD02936-31	Coil, 50/60 Cycles	110/208–220 V
	ESD02936-32		208–220/440 V
	ESD02936-33		550 V
3	ES49L100103	Kit, Switchlets, Interlock (maximum two each side)	Left
	ES49L100102		Right
4	ES75CA14	Pole, Electrical Interlock	One Complete Pole, Contacts and Spring
	ES75DA14	Pole, Power	



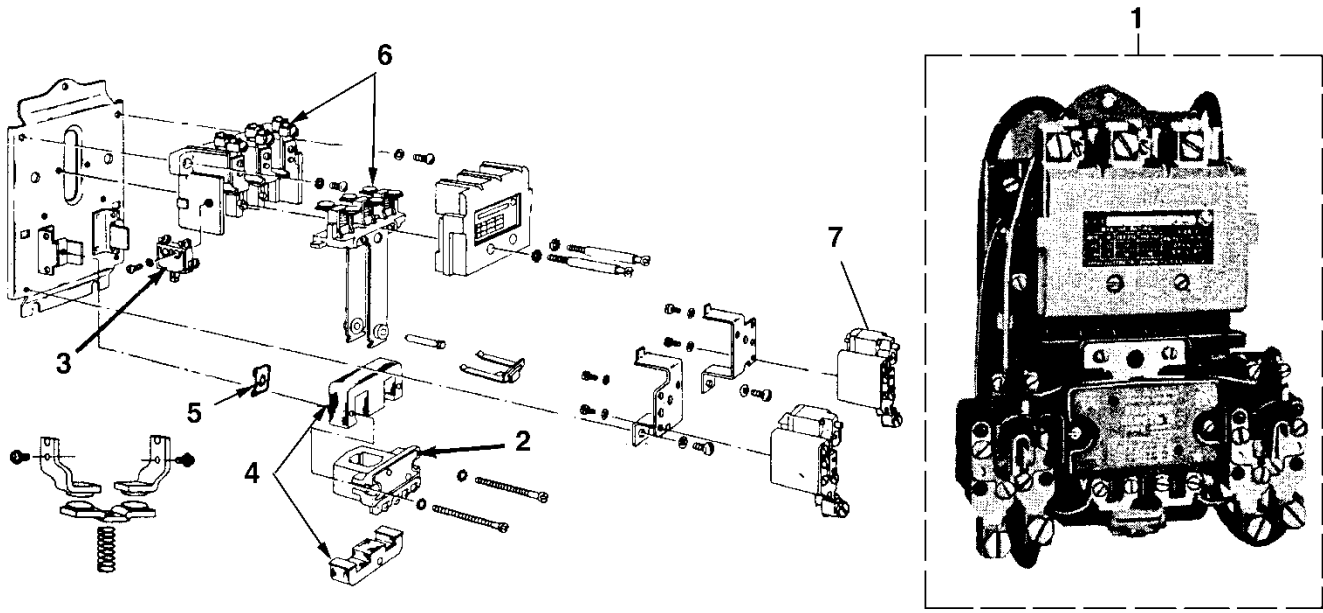
REF. NO.	PART or ML	DESCRIPTION	
1	ES14DF-Size1	Assembly, Magnetic Starter, Complete	
2	ES75D73070C	Coil, 60 Cycles, 208–240 V	
3	ES49D54682NO	Kit, Auxiliary Contact	N.O.
	ES49D54682NC		N.C.
	ES49L106889		Tandem Mounting
4	ES75AF14	Pole, Interlock	One Complete Pole, Contacts and Spring
	ES75DF14	Pole, Power	
5	ES48DC11A2	Relays, Overload	Melting Alloy
	ES48DC31A2		3-Pole
	ES48DC17A2		1-Pole
	ES48DC37A2		3-Pole
	ES48DC18A2		1-Pole
	ES48DC38A2		3-Pole



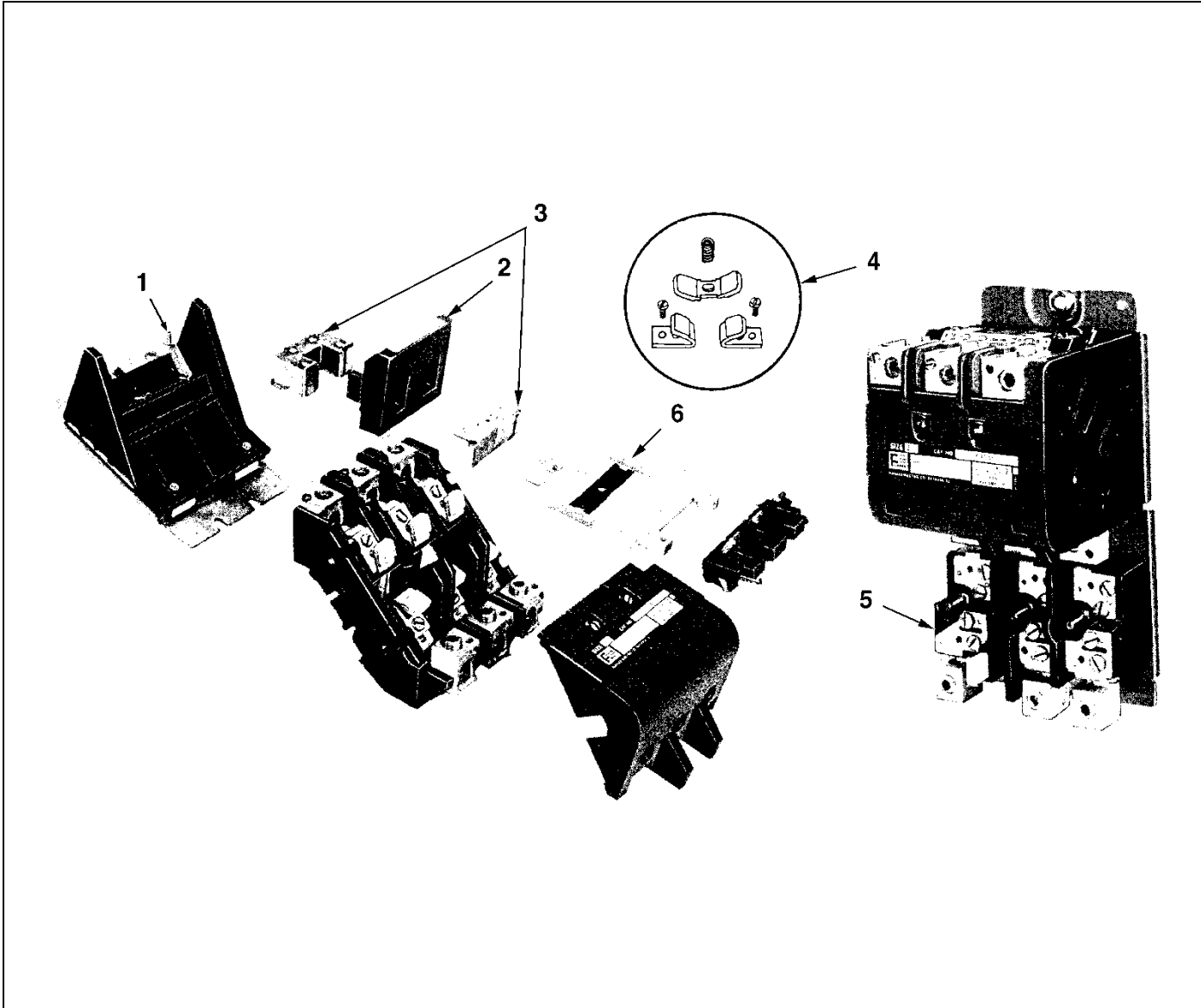
REF. NO.	PART or ML	DESCRIPTION	
1	ES14FB-Size2	Assembly, Magnetic Starter, Complete	
2	ESD71221-34 ESCO-3-319-202	Coil, 50/60 Cycles	110/208-220 V
	ESD71221-32		208-220/440 V
	ESD71221-33		550 V
3	ES49L100103	Kit, Interlock Switchlets (maximum two on each side)	Left
	ES49L100102		Right
4	ES75FB14A	Pole, Complete (contacts and spring)	
5	ES48FB11A	Relay, Thermal O.L. (standard trip melting alloy)	



REF. NO.	PART or ML	DESCRIPTION	
1	ES22GFF-Size2	Assembly, Reversing Starter, Complete	
2	ES75D73070C	Coil, 60 Cycles	208-240/440-480 V
	ES75D73070E		550-600 V
3	ES49D54682NO	Contact, Auxiliary	N.O.
	ES49D54682NC		N.C.
	ES49L106889		Tandem Mounting
4	ESD25551-001	Magnet and Armature	
5	ES75FF14	Pole, Complete (contacts and spring)	
6	ES48GC31A2	Relay, Overload, 3-Pole (standard melting alloy)	

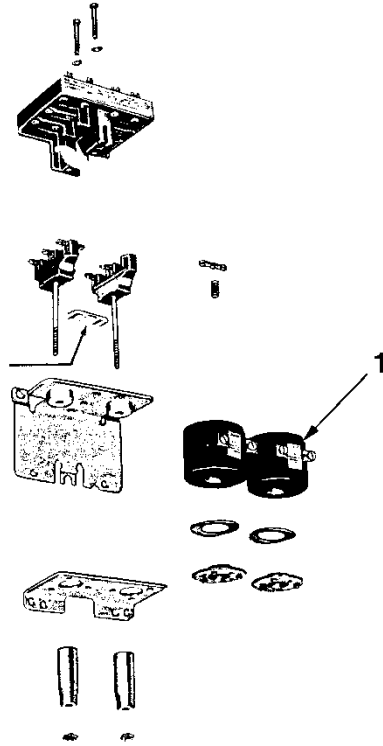


REF. NO.	PART or ML	DESCRIPTION	
1	ES14HB-Size3	Assembly, Magnetic Starters, Complete	
2	ESD71221-31 ESCO-3-319-202	Coil, 50/60 Cycles	110/208-220 V
	ESD71221-32		208-220/440 V
	ESD71221-33		550 V
3	ES49L100103	Kit, Interlock Switchlets (maximum two on each side)	Left
	ES49L100102		Right
4	ESD16946-1	Magnet and Armature	
5	ESD16317-1	Pad, Magnet (2 required)	
6	ES75HB14	Pole, Complete (contacts and springs)	
7	ES48HB11A	Relay, Thermal Overload	Standard Trip Melting Alloy
	ES48HA17A		Non-Compensated
	ES48HA18A		Amb. Temp. Compensated



REF. NO.	PART or ML	DESCRIPTION		
1	ES48HC31A2	Clip, Coil Spring, 3-Pole (standard melting alloy)		
2	ES75D73251C	Coil	60 Cycles	208–240/440–480 V
			50 Cycles	190–220/380–440 V
	ES75D73251E		60 Cycles	550–600 V
			50 Cycles	550 V
3	ESD27222-001	Magnet and Armature		
4	ES75HF14	Pole, Complete (contacts and spring)		
5	ES48HC37AA2	Relay, Overload, 3-Pole	Standard Bimetal	
	ES48HC38AA2		Amb. Compensated Bimetal	
6	D25836-001	Spring, Cross Arm		

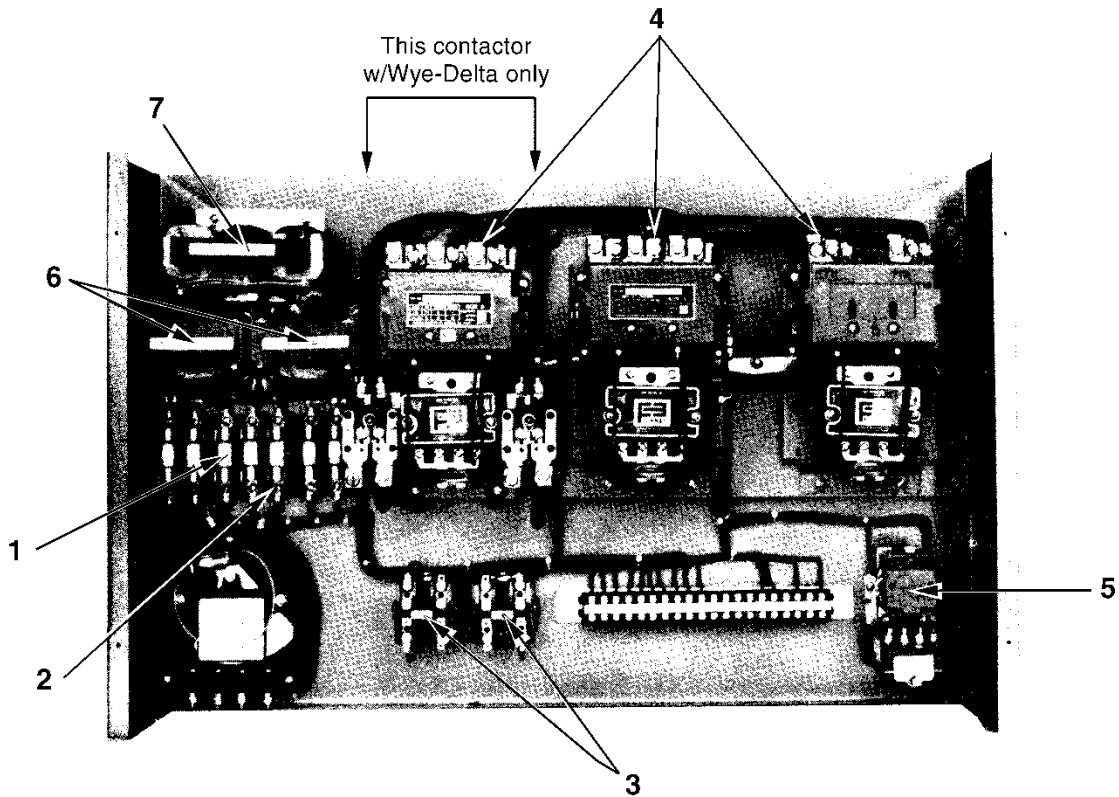
Door Reversing Switch, Allen Bradley Series A and B Construction



REF. NO.	Coil Number	Volts	Hz	Coil Current (Amperes)		Volt-Amperes	
				Inrush	Sealed	Inrush	Sealed
1	ES26A27	24	60	2.5	0.96	61	23
	ES26A28	24	50	2.3	0.83	55	20
	ES26A01	110	60	0.55	0.21	61	23
	ES26A86	120	60	0.51	0.192	61	23
	ESCO-3-319-252	110	50	0.54	0.20	60	22
	ES26A113	208	60	0.29	0.111	61	23
	ES26A06	220	60	0.28	0.105	61	23
	ES26A83	240	60	0.26	0.096	61	23
	ESCO-3-319-263	220	50	0.27	0.100	60	22
	ES26A11	440	60	0.140	0.052	61	23
	ES26A288	480	60	0.127	0.048	61	23
		440	50	0.136	0.050	60	22
	ES26A16	550	60	0.110	0.042	61	23
	ES26A81	600	60	0.101	0.039	61	23
550		50	0.110	0.040	60	22	

Motor Starter Panel

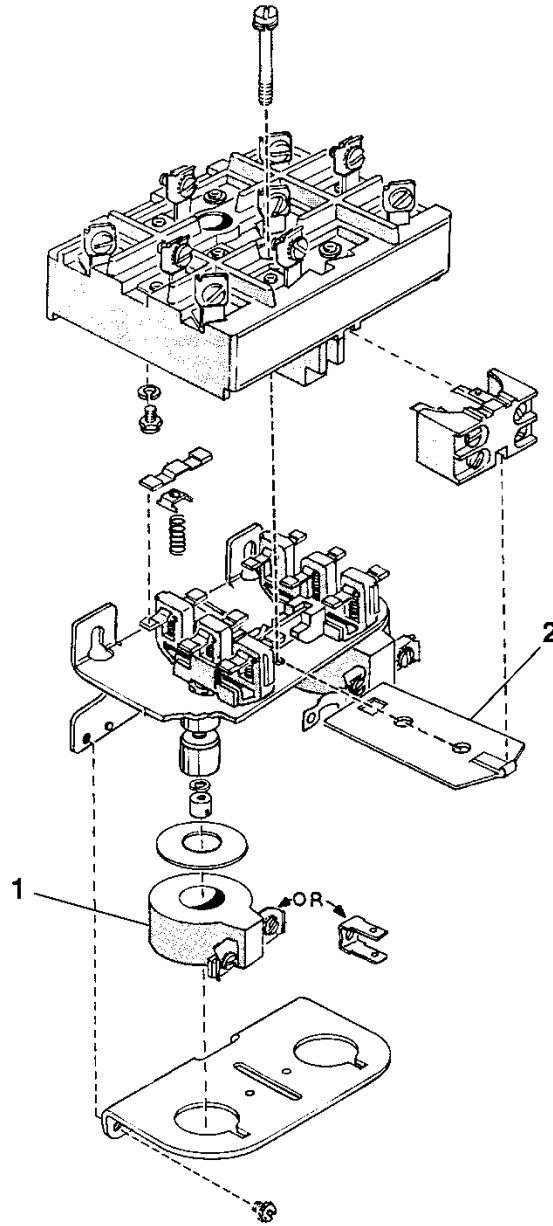
40-ESCO



REF. NO.	PART or ML	DESCRIPTION	
1	3-366-001 375H3	Fuse, 3 Amp	
2	3-366-035	Holder, Fuse	1-Pole
	3-366-014		2-Pole
	3-366-016		3-Pole
3	3-375-010	Relays, Motor Starter Pilot (high voltage system only)	
4	3-373-011	Starter, Motor	Size 1
	3-373-012		Size 2
	3-373-013		Size 3
5	3-367-027 ESCO-3-367-035	Timer, Wye Delta	
6	ESCO-3-368-021	Transformer, Control	208/260-112 V
	ESCO-3-368-023		440/480/550-120 V
7	ESCO-3-368-024	Transformer, 3-Phase High Voltage	

NOTE: Starter arrangements vary according to individual job requirements.

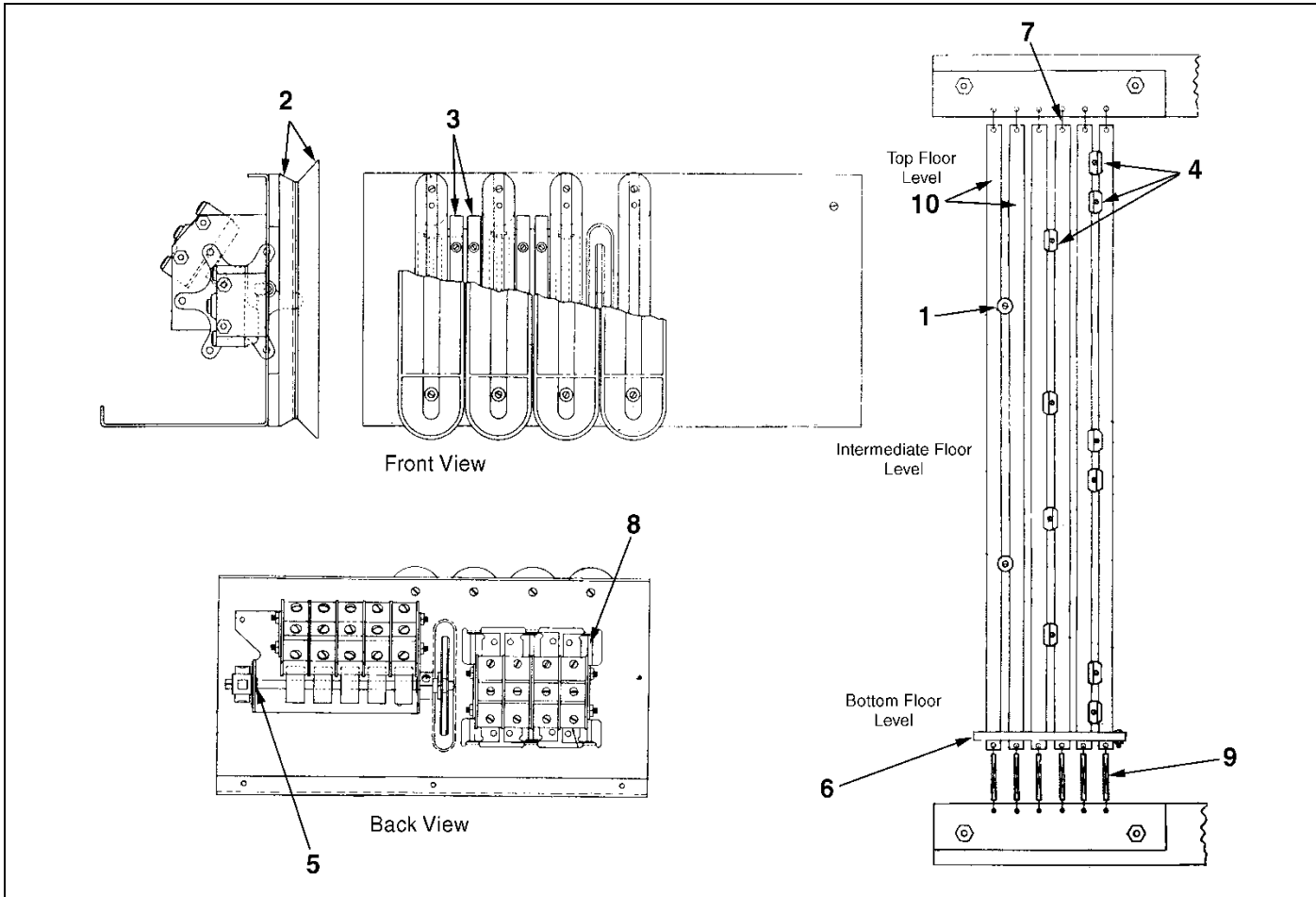
Square D Class 8965 Type R06S1 AC Reversing Magnetic Contactors Type R—Series A, B, and C



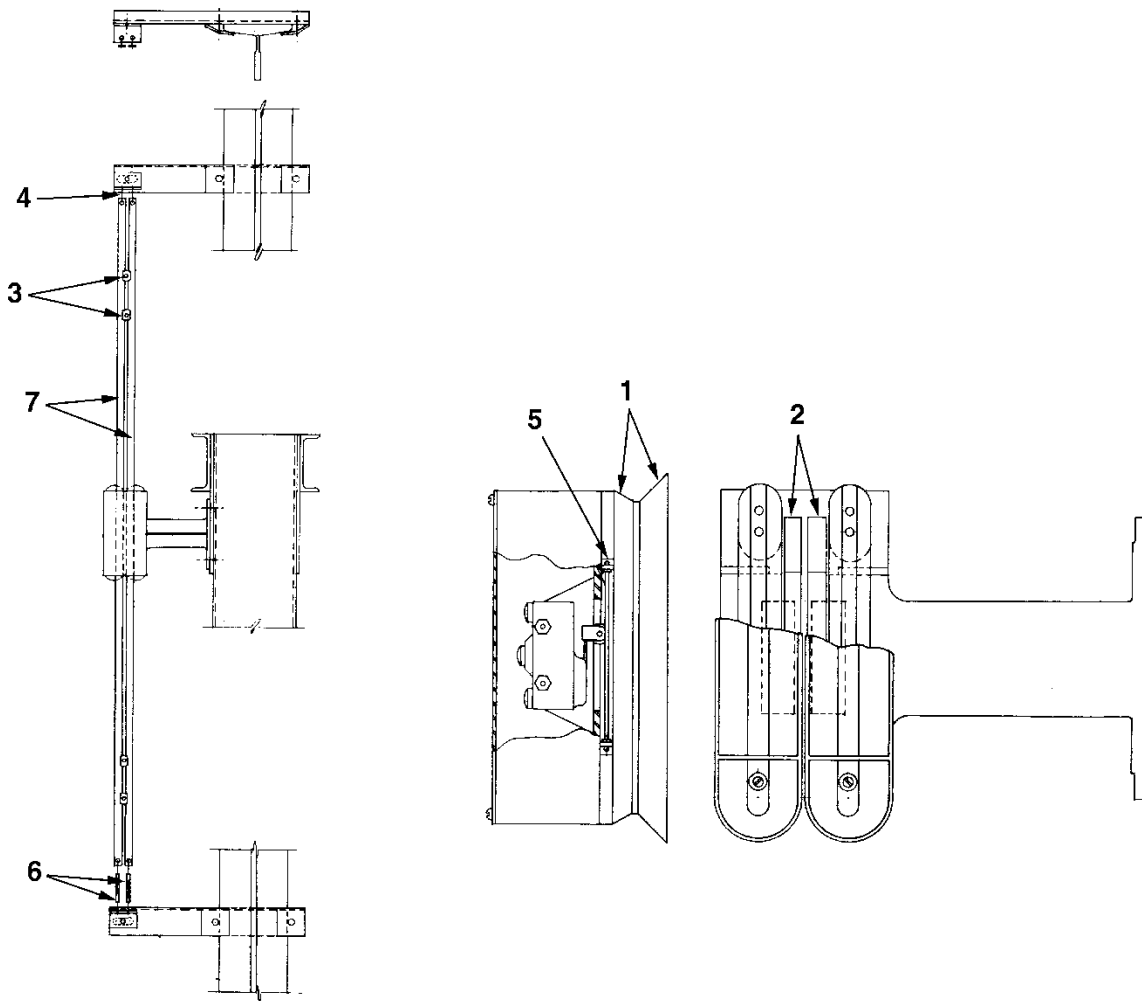
REF. NO.	PART or ML	DESCRIPTION
1	ES31002-400-40	Coil, Magnet, 60 Cycles
	ESCO-3-319-265	
2	31002-020-01	Latch, Interlock

A5 Selector

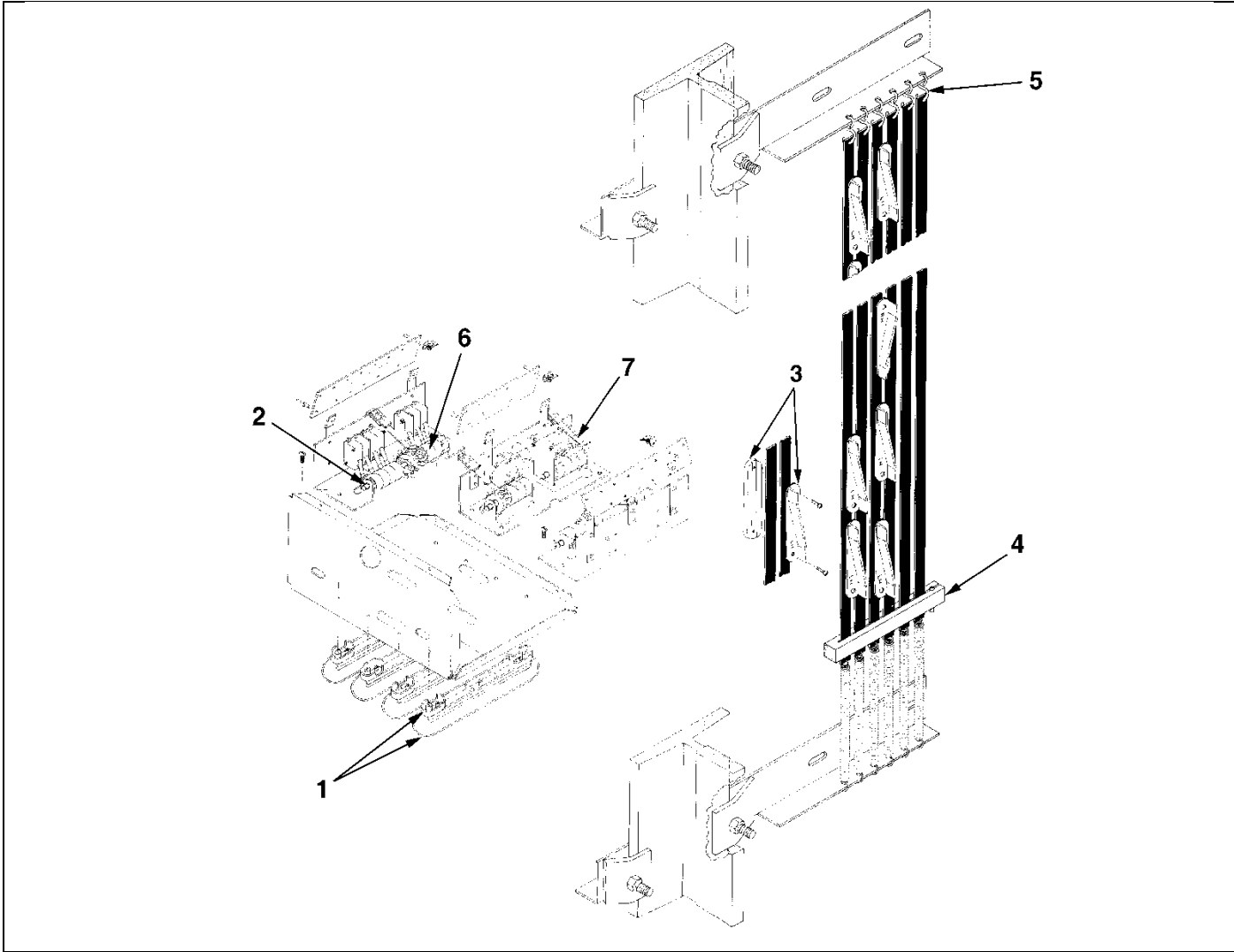
40-ESCO





REF. NO.	PART or ML	DESCRIPTION
1	3-410-002 ESCO-3-410-007	Assembly, Stepping Striker
2	3-016-018 3-016-019 ESCO-3-016-031	Assembly, Tape Guide Complete
3	3-364-024 ESCO-3-364-027	Assembly, Vane
4	ESCO-3-410-001	Assembly, Zone Striker
5	3-009-009 212AB6	Bushing, Nylon
6	ESCO-3-516-004	Clamp, Tape
7	3-238-001 509W7	Hook, S, Tape Support
8	ESCO-3-028-020	Pin, Hinge
9	ESCO-3-010-027	Spring, Selector
10	3-070-008 ESCO-3-070-005	Tape, Steel, 0.020 x 1/2 in. W (length as specified)

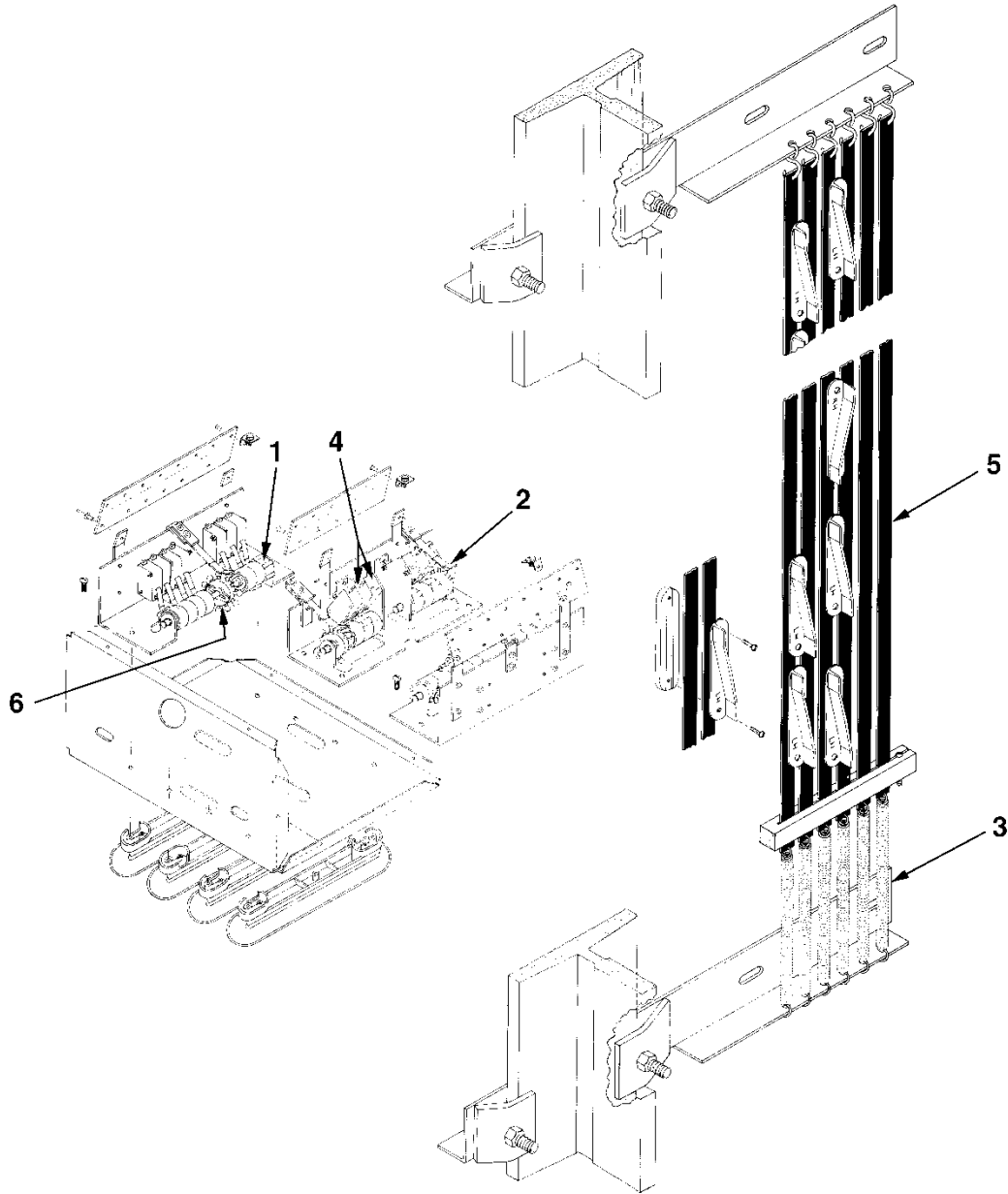


REF. NO.	PART or ML	DESCRIPTION
1	3-016-018 3-016-019 ESCO-3-016-031	Assembly, Tape Guide Complete
2	3-364-024 ESCO-3-364-027	Assembly, Vane
3	3-410-003 3-346-004 ESCO-3-410-001	Assembly, Zone Striker
4	3-238-001 509W7	Hook, S, Tape Support
5	ESCO-3-028-020	Pin, Hinge
6	ESCO-3-010-027	Spring
7	3-070-008 ESCO-3-070-005	Tape, Steel, 0.020 x 1/2 in. W (length as specified)



REF. NO.	PART or ML	DESCRIPTION	
1	3-016-018 3-016-019 ESCO-3-016-031	Assembly, Tape Guide Complete	
2	3-009-009 212AB6	Bushing, Nylon	
3	ESCO-3-364-028	Cam, Indexing	
	ESCO-3-364-029		
4	ESCO-3-516-004	Clamp, Tape	
5	3-238-001 509W7	Hook, S, Tape Support	
6	ESCO-3-037-034	Lifter, Disc Switch, 1-Lobe	
7	ESCO-3-614-001	Spring, Detent	

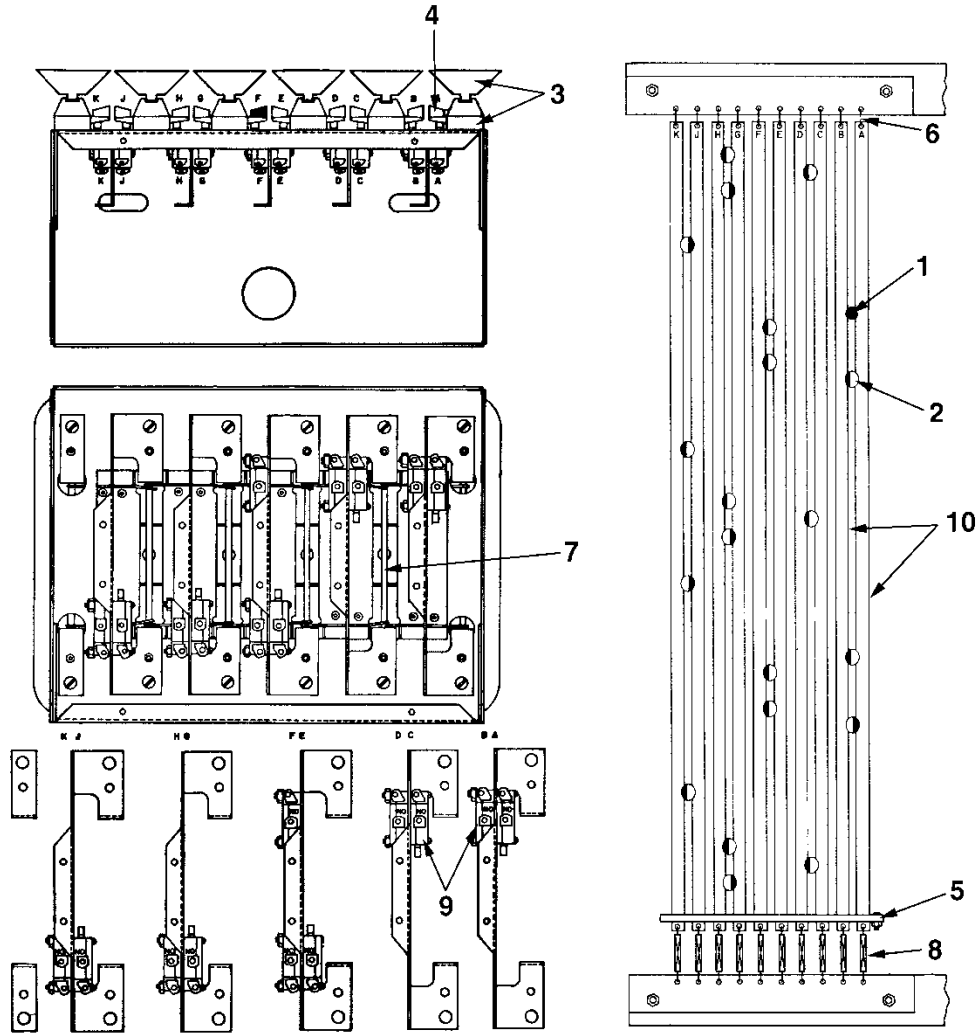
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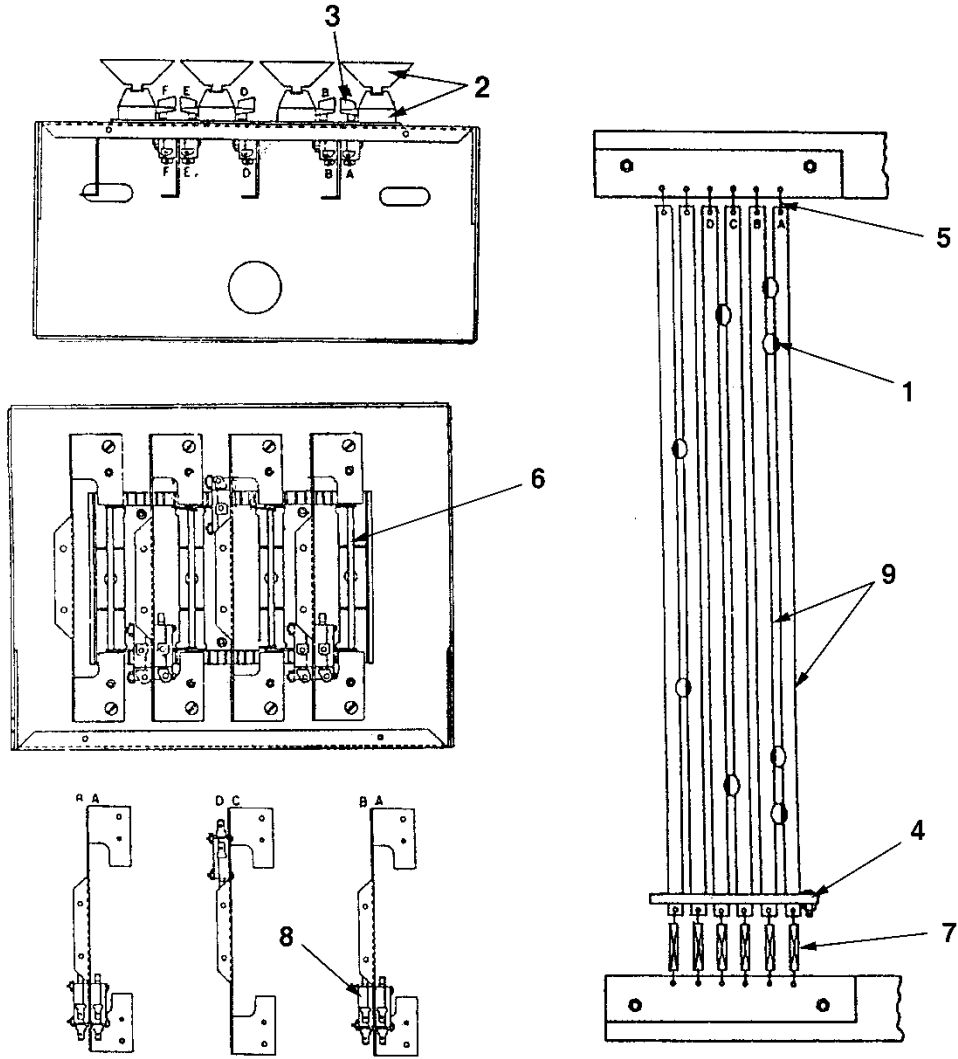
REF. NO.	PART or ML	DESCRIPTION
1	ESCO-3-037-035	Lifter, Disc Switch, 6-Lobe
2	ESCO-3-614-001	Spring, Detent
3	ESCO-3-010-027	Spring, Tape Tensioning
4	3-376-129 3-376-130 ESCO-3-376-131	Switch, N.O. and N.C. Contacts
5	3-070-008 ESCO-3-070-005	Tape, Steel, 0.020 x 1/2 in. W (length as specified)
6	ESCO-3-379-004	Wheel, Stepping

A8M and A8MD Selectors

40-ESCO



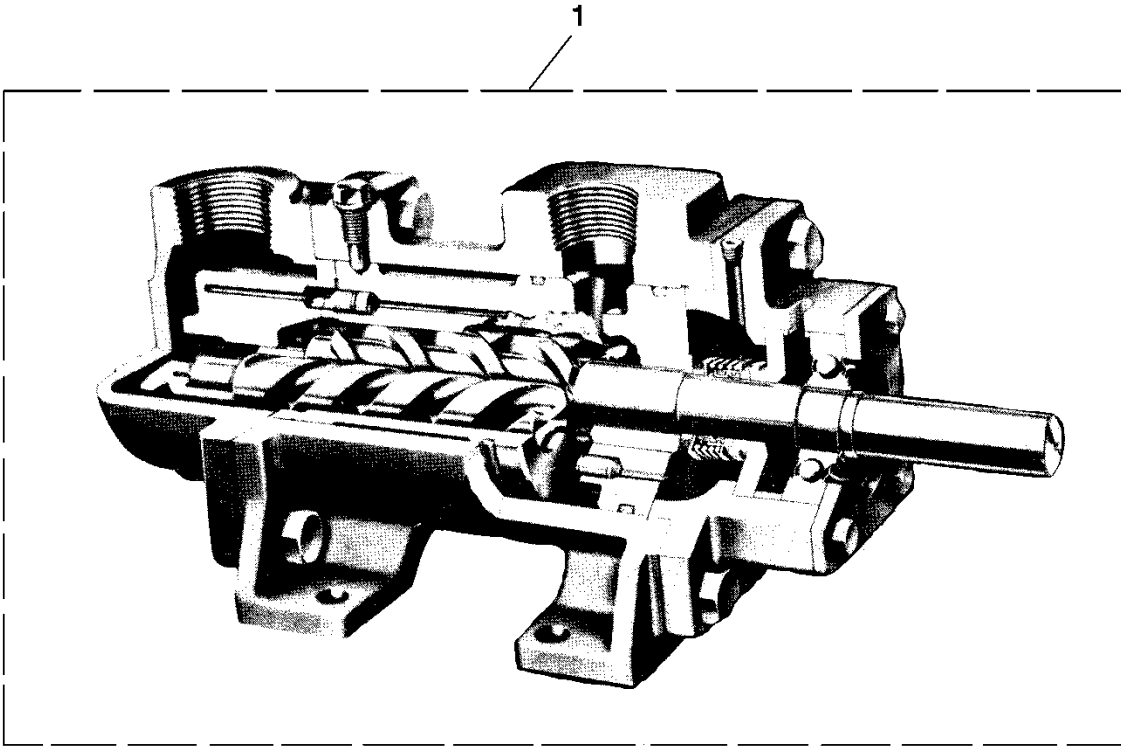
REF. NO.	PART or ML	DESCRIPTION
1	ESCO-3-410-007	Assembly, Striker, Dual
2	ESCO-3-410-001	Assembly, Striker, Single
3	3-016-018 3-016-019 ESCO-3-016-031	Assembly, Tape Guide Complete
4	ESCO-3-364-027	Assembly, Vane
5	ESCO-3-516-004	Clamp, Tape
6	3-238-001 509W7	Hook, S, Tape Support
7	ESCO-3-028-020	Pin, Hinge
8	ESCO-3-010-027	Spring, Tape Tensioning
9	ESCO-3-376-159	Switch
10	ESCO-3-070-005	Tape, Steel 0.020 x 1/2 in. W (length as specified)



REF. NO.	PART or ML	DESCRIPTION
1	ESCO-3-410-001	Assembly, Striker, Single
2	3-016-018 3-016-019 ESCO-3-016-031	Assembly, Tape Guide Complete
3	ESCO-3-364-027	Assembly, Vane
4	ESCO-3-516-004	Clamp, Tape
5	3-238-001 509W7	Hook, S, Tape Support
6	ESCO-3-028-020	Pin, Hinge
7	ESCO-3-010-027	Spring, Tape Tensioning
8	ESCO-3-376-159	Switch
9	3-070-014 ESCO-3-070-005	Tape, Steel 0.020 x 1/2 in. W (length as specified)

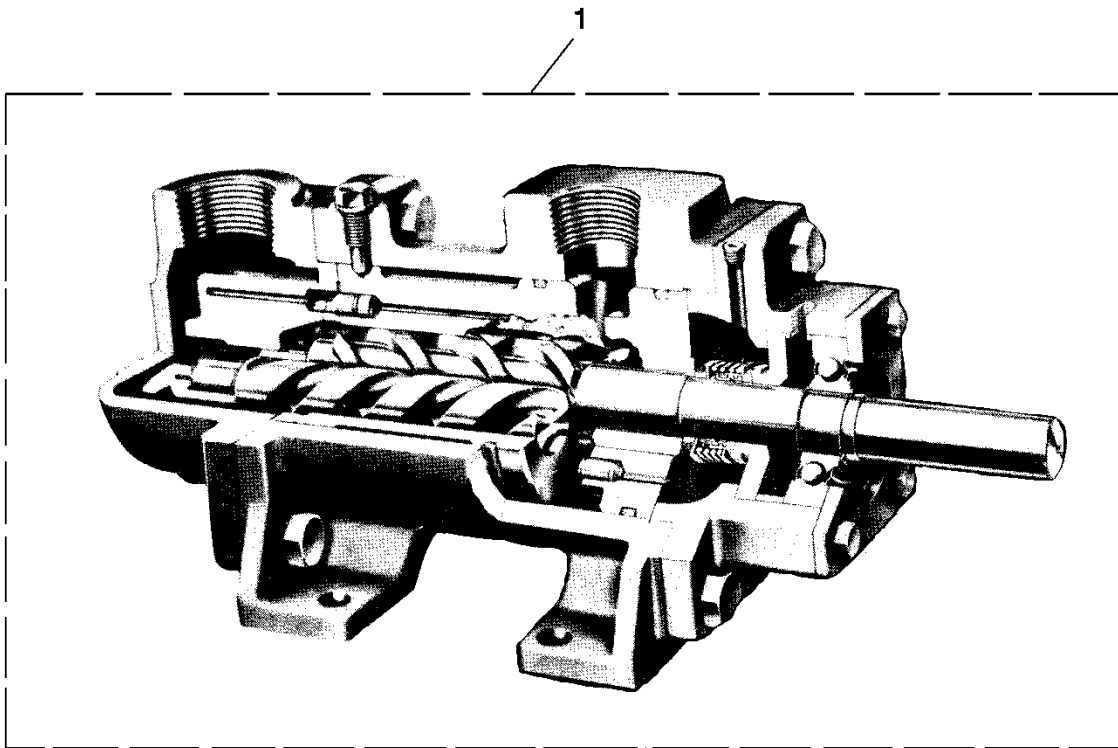
Pumps

40-ESCO



REF. NO.	PART or ML	DESCRIPTION	GPM	RPM
1	6962J1	Pump, IMO A 3DB-137	16	2100
			20	2510
	6962J2	Pump, IMO A 3DB-156	31	2580
			40	3175
	6962T1	Pump, IMO G 3DB-187	43	2100
			46	2220
			60	2760
	2700ADD2	Pump, IMO G 3DB-218 (kit to fit A 3DB-218)	78	2290
			88	2535
			93	2650
100			2820	

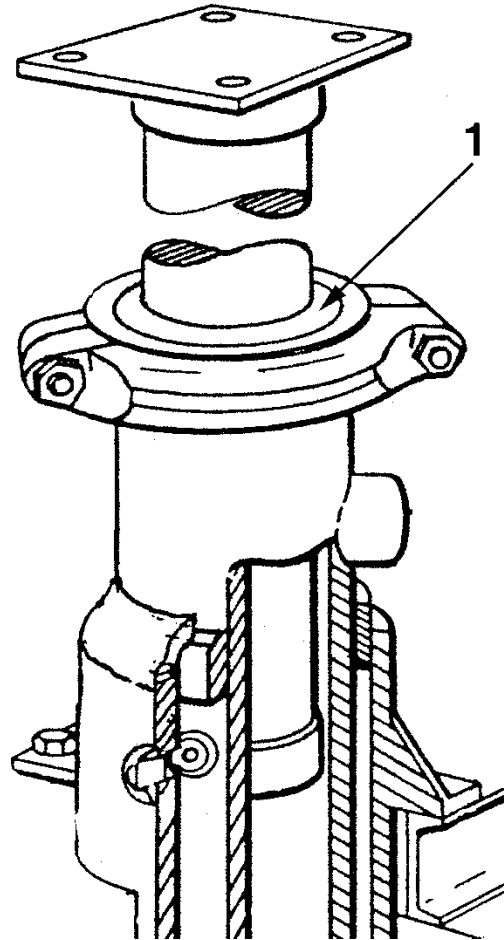
(Continued on next page)



REF. NO.	PART or ML	DESCRIPTION	GPM	RPM
1	2700ADD1	Pump, IMO G 3DB-250 (kit to fit A 3DB-250)	115	2220
			123	2340
			135	2537
			155	2870
			170	3080
	6926AM3	Pump, IMO G 3DB-275	181	2540
			194	2700
			212	2921
	6926AM4	Pump, IMO A 3DB-312	222	2160
			229	2220
250			2400	

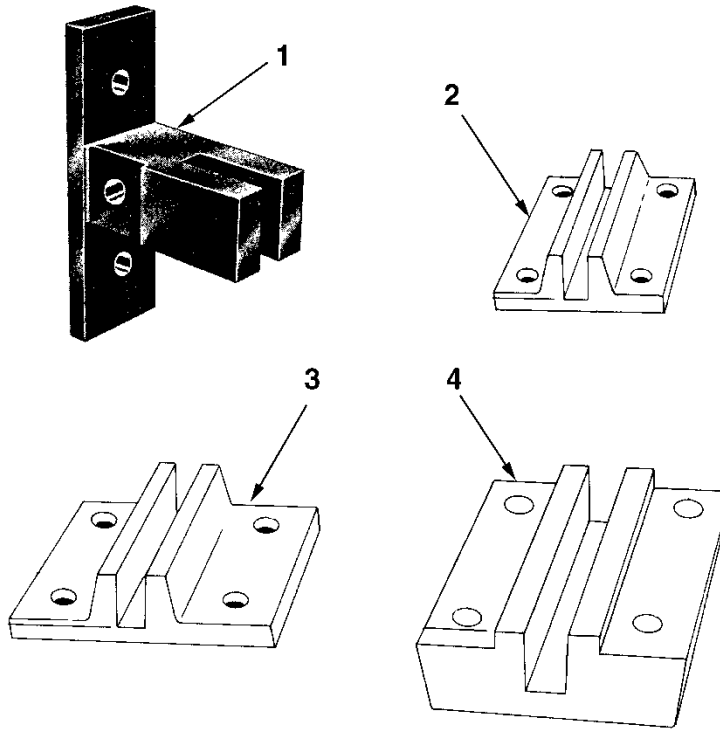
P-6 Victaulic Head Packing


40-ESCO



REF. NO.	PART or ML	DESCRIPTION	PLUNGER \varnothing (in.)
1	AAA182AW1	Victaulic Head Packing, P-6	4
	AAA182AW2		4.5
	AAA182AW3		5
	AAA182AW4		5.5
	AAA182AW5		6
	AAA182AW6		6.5
	AAA182AW7		7

Rigid Guide Shoes



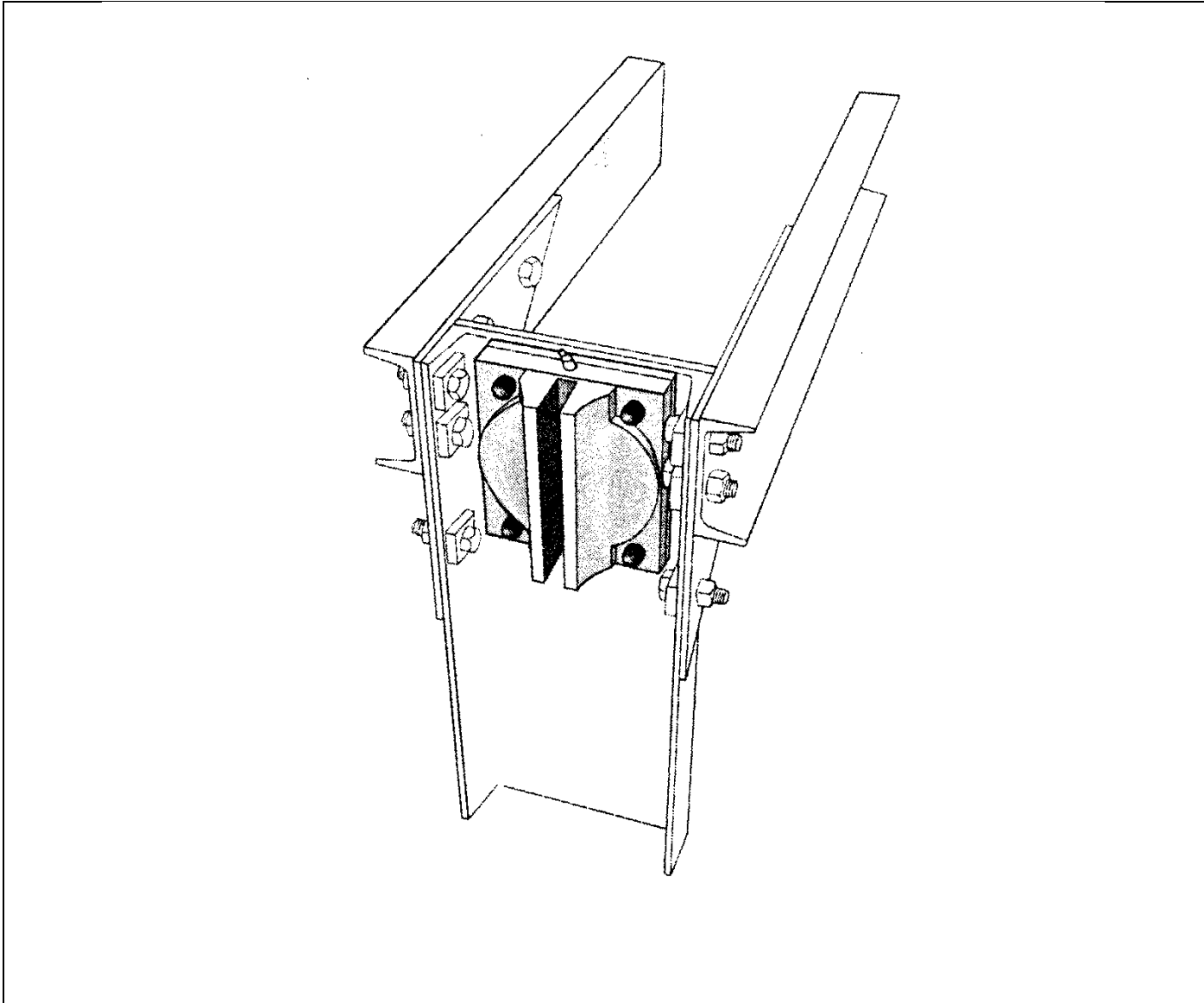
REF. NO.	PART or ML	DESCRIPTION	
1	ESCO-3-066-002	Shoe, Gate Guide	
2	ESCO-3-066-003	Shoe, Rigid Guide, Type G-6, for 6 in. Uprights on 8, 12, or 15 lb. Guide Rail	
3	ESCO-3-066-004	Shoe, Rigid Guide, Type G-8, for 8 in. Uprights on 8, 12, or 15 lb. Guide Rail	
4	ESCO-3-066-001	Shoe, Rigid Guide, Type G-10, for 8 in. (or larger) Uprights on 15, 18, or 22.5 lb. Guide Rail	#15 Rail
	ESCO-3-066-011		#18.5 Rail
	ESCO-3-066-006	Guide Rail  Note	#22.5 Rail


NOTE: Suitable for all class A freight elevators and class C freight elevators in accordance with the following table:

Loaded Truck Weight	Platform Depth
10,000 lb.	76 ft.
15,000 lb.	50 ft.
20,000 lb.	38 ft.
25,000 lb.	30 ft.
30,000 lb.	25 ft.
35,000 lb.	20 ft.

Swivel Guide Shoes

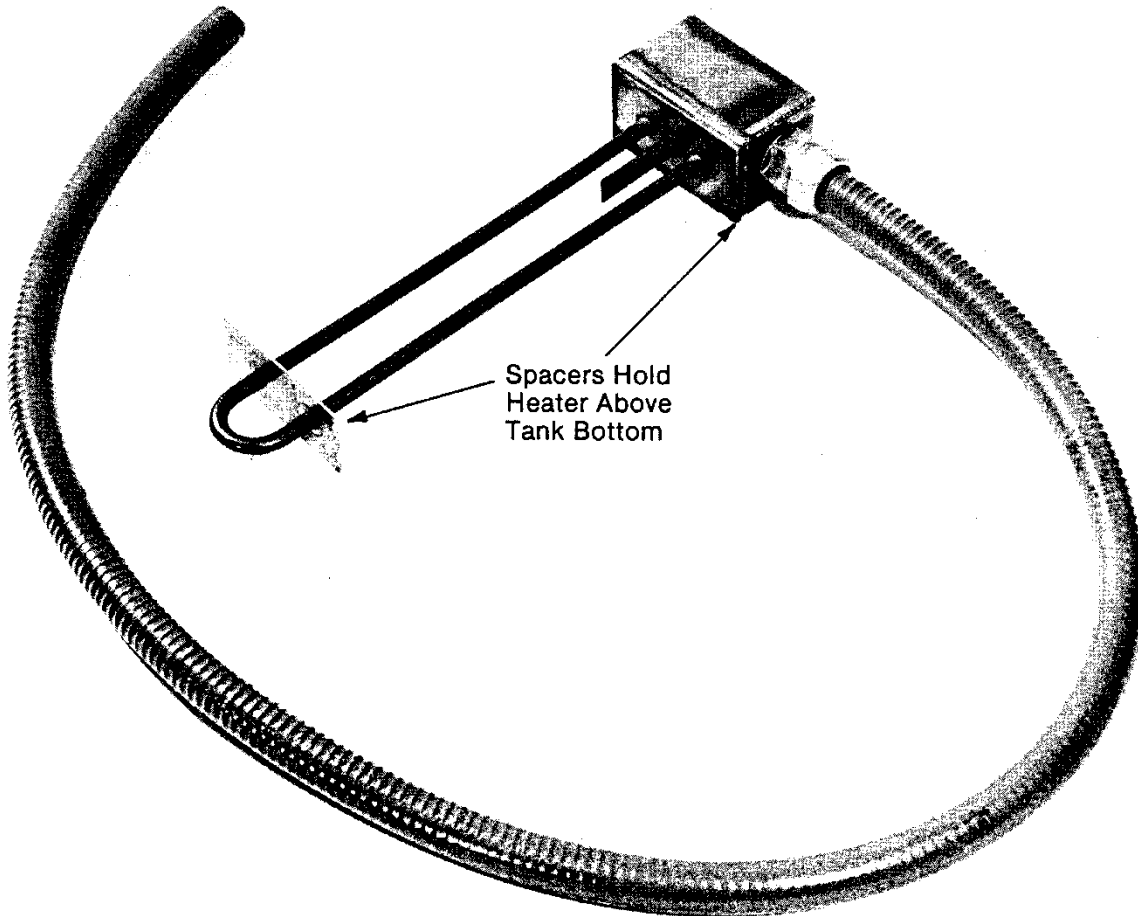
40-ESCO



REF. NO.	PART or ML	DESCRIPTION	
1	ESCO-3-066-021	Shoe, Swivel Guide, Type R-4A  Note	#18.5 Rail
	ESCO-3-066-022		#22.5 Rail
	ESCO-3-066-023		#30 Rail

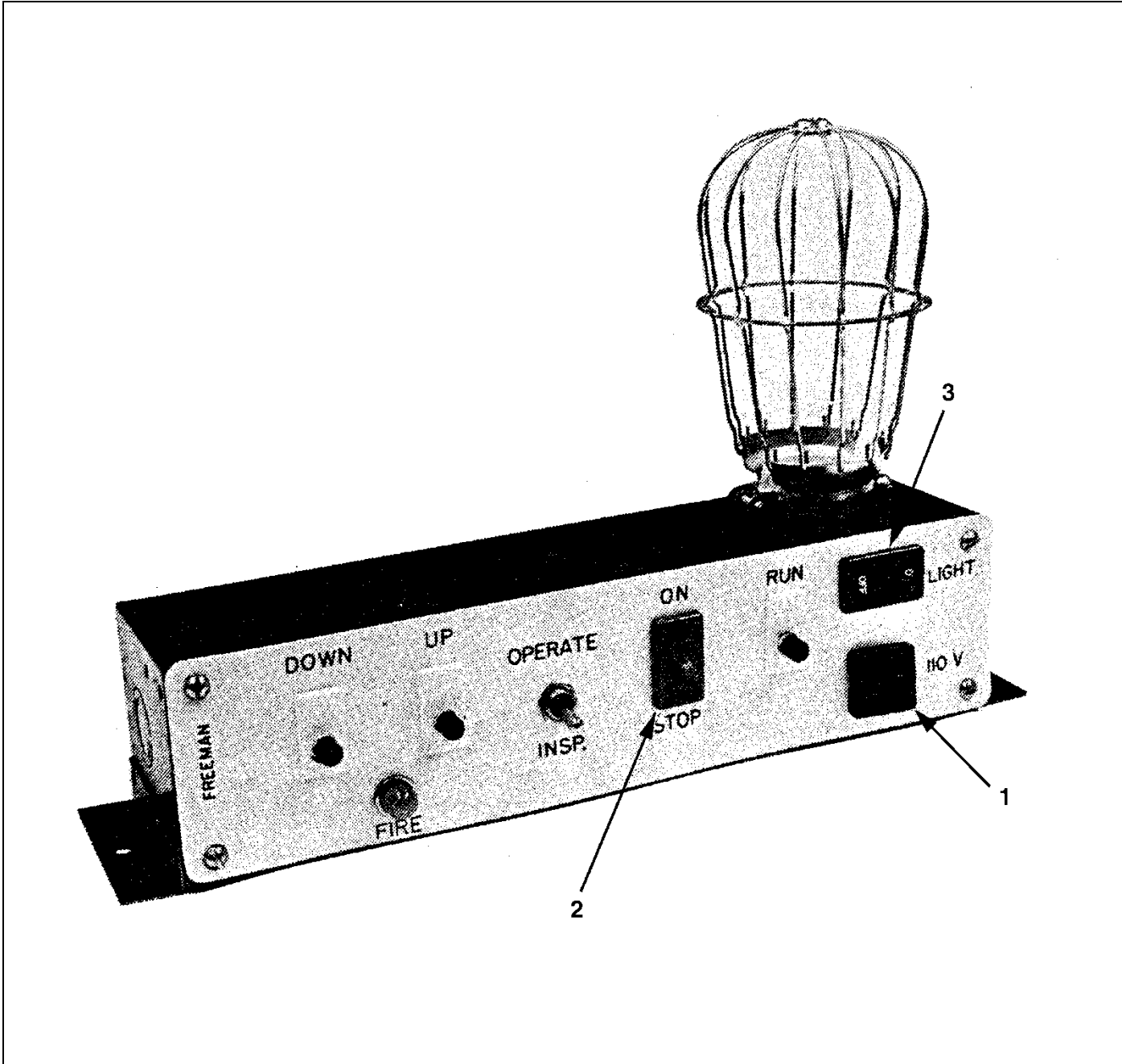
NOTE: Suitable for all class A freight elevators and class C freight elevators in accordance with the following table:

Loaded Truck Weight	Platform Depth
15,000 lb.	70 ft.
20,000 lb.	52 ft.
25,000 lb.	42 ft.
30,000 lb.	35 ft.
35,000 lb.	30 ft.
40,000 lb.	26 ft.



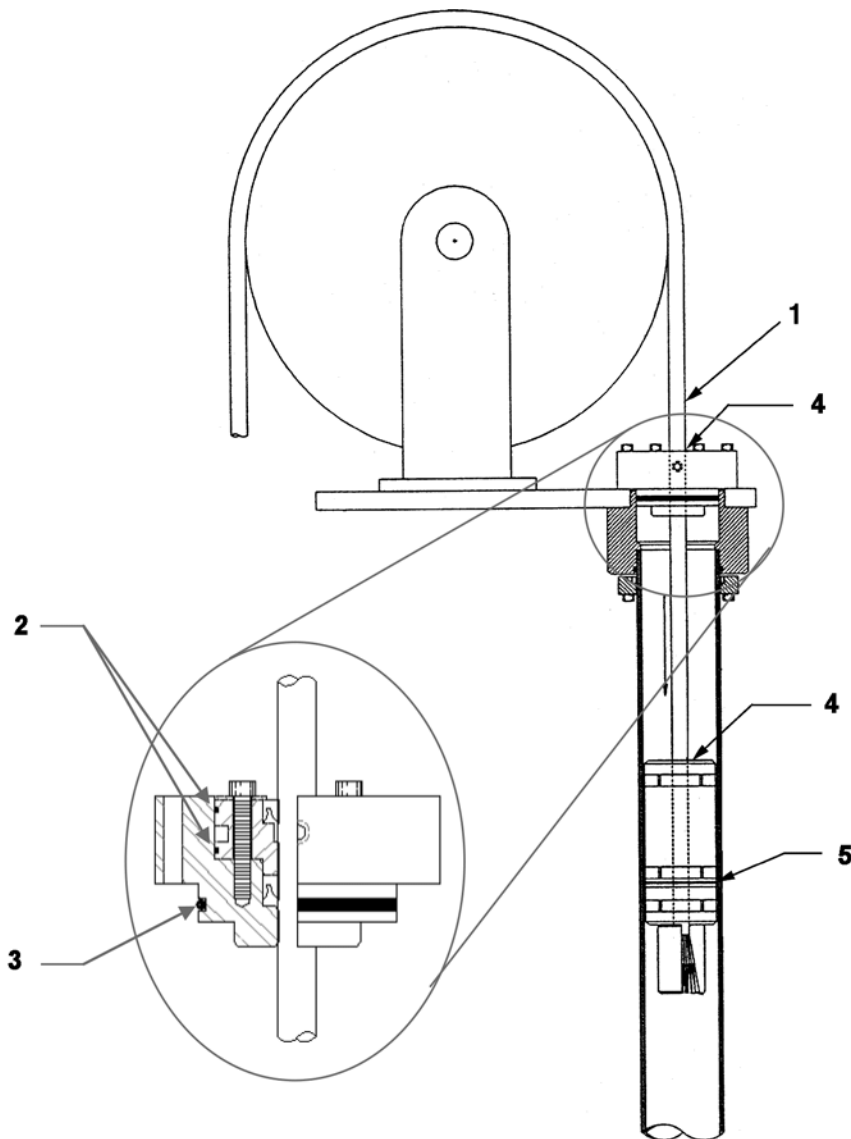
Spacers Hold
Heater Above
Tank Bottom

REF. NO.	PART or ML	DESCRIPTION
1	615C2	Heater, Tank, 4 ft., 275 Watts, 120 V, 60 Cycles, Thermostat set at 100° F



REF. NO.	PART or ML	DESCRIPTION
*	---	Assembly, Pit Switch, SPL 35-AAA22800A
*	---	Assembly, Top-of-Car Inspection Box, SPL 14-M**24831A
1	6599R2	Outlet, Power, AC
2	ESCO-3-376-172	Switch, Emergency Stop (w/o box or face plate)
3	ESCO-3-376-141	Switch, On/Off

* Not shown.



REF. NO.	PART or ML	DESCRIPTION
1	ESCO-1-103-003	Cable, Nylon Jacketed, 7/16 in. Rope, \varnothing 0.600 in. Jacket
2	ESCO-3-054-053	O-Ring, 037, 2-1/2 in. X 2-5/8 in. X 1/16 in.
3	ESCO-3-054-020	O-Ring, 233, 2-7/8 in. X 3-1/8 in. X 1/8 in.
*	ESCO-3-370-026	Relay, 4-Pole, 115 V, 5 A/250 V
4	ESCO-5-031-008	Seal, Cable, CA-CY, for \varnothing 0.600 in. Jacketed Rope
5	ESCO-5-031-007	Seal, Piston, CA-CY, for \varnothing 0.600 in. Jacketed Rope
*	ESCO-3-058-001	Sheave, 3-1/2 in., A-114
*	ESCO-3-376-172	Switch, Emergency Stop

* Part not shown.