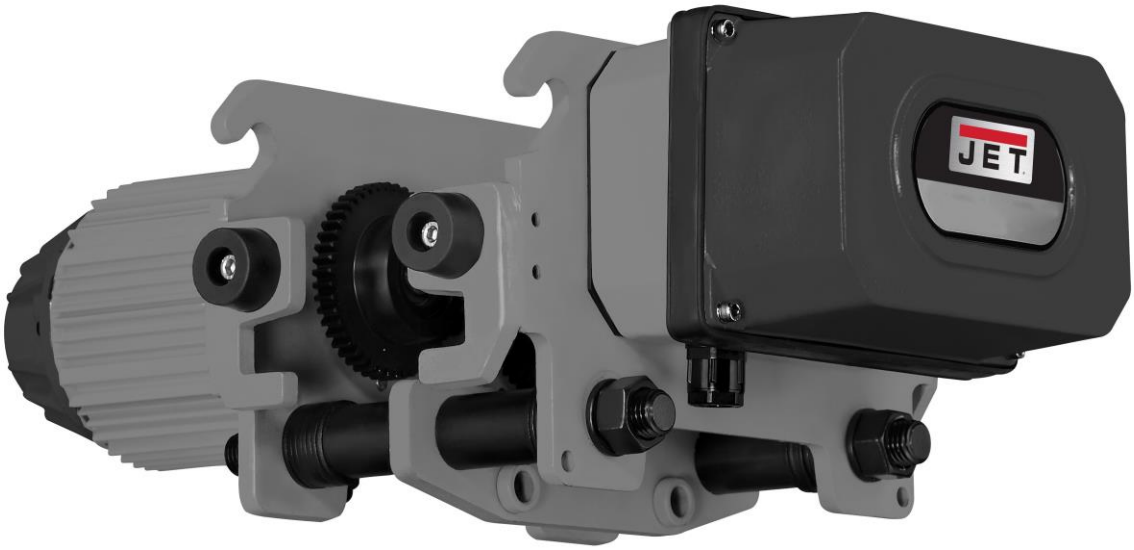
Operating Instructions and Parts Manual
MT Series 2-speed Electric Trolley



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1.0 IMPORTANT SAFETY INSTRUCTIONS

- Read and understand this entire manual before attempting assembly or operation. You should also be thoroughly familiar with all information in the owner's manual that accompanied your hoist.
- Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
- Replace the warning labels if they become obscured or removed.
- This trolley is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a trolley, do not use until proper training and knowledge have been obtained.
- Do not use this trolley for other than its intended use. If used for other purposes, JET disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
- Do not install this trolley where explosive hazards may exist.
- Beam must be properly installed and rated for anticipated loads. Do not install trolley on beams of unknown capacity.
- Do not install trolley on damaged or deformed beams.
- JET trolleys are designed to be used with hoists of the same rated capacity. Never use a hoist with a capacity greater than the capacity of the trolley.
- Never subject trolley to a side pull or load. Load must be centered directly under the hoist/trolley assembly.
- Make sure load is stable and secure before moving.
- Never lift load higher than is necessary to safely move it.
- Do not use to lift people, or loads over people. Warn others in the vicinity when lifting or transporting a load. Avoid swinging load and hook.
- Do not use in wet, damp or poorly lit locations. This trolley is not rated for outdoor use.
- Do not exceed the rated capacity of the trolley.
- Maintain firm footing when operating the trolley.
- The exposed end of the beam or rail must have a stop installed to contact the frame sides of the trolley, to prevent the trolley from sliding off the beam/rail.
- Always inspect the trolley for damage prior to use. If the trolley is damaged, do not use until it has been repaired or replaced.
- Leave all internal maintenance to a qualified JET service center.
- Do not operate this trolley while tired or under the influence of drugs, alcohol or any medication.
- Thoroughly familiarize yourself with all instructions that accompanied the hoist you will be using with this trolley.
- Anticipate stopping points and allow the trolley to come to a smooth stop. Avoid sudden stops or reversals.

⚠ **WARNING:** This product can expose you to chemicals including lead and cadmium which are known to the State of California to cause cancer and birth defects or other reproductive harm, and phthalates which are known to the State of California to cause birth defects or other reproductive harm. For more information go to http://www.p65warnings. ca.gov.

Familiarize yourself with the following safety notices used in this manual:

⚠CAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

⚠WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

- - SAVE THESE INSTRUCTIONS - -

2.0 **Table of Contents**

1.0 IMPORTANT SAFETY INSTRUCTIONS 2
2.0 Table of Contents 3
3.0 Introduction 4
4.0 MT Trolley Specifications 5
4.1 230 volt models 5
4.2 460 volt models 6
4.3 MT trolley with TS series hoist – dimensions 7
5.0 Unpacking 8
5.1 Contents of Shipping Container 8
6.0 Installation & Assembly 8
6.1 Mount trolley to beam 8
6.2 Mount hoist to trolley 8
7.0 Electrical connections 10
7.1 GROUNDING INSTRUCTIONS 10
7.2 Extension Cords 10
7.3 Inspecting trolley motion 10
8.0 User-maintenance 11
8.1 Brake inspection 11
8.2 Lubrication 11
8.3 Additional servicing 11
9.0 Pendant controllers for Trolley with TS Hoist 11
10.0 Troubleshooting MT Series Trolleys 12
11.0 Replacement Parts 13
11.1.1 MT050 and MT100 Trolley Frame – Exploded View 14
11.1.2 MT050 and MT100 Trolley Frame – Parts List 15
11.2.1 MT050 and MT100 Trolley Motor – Exploded View 16
11.2.2 MT050 and MT100 Trolley Motor – Parts List 17
11.3.1 MT050 and MT100 Trolley Electricals – Exploded View 18
11.3.2 MT050 and MT100 Trolley Electricals – Parts List 18
11.4.1 MT200 Trolley Frame – Exploded View 19
11.4.2 MT200 Trolley Frame – Parts List 20
11.5.1 MT200 Trolley Motor – Exploded View 21
11.5.2 MT200 Trolley Motor – Parts List 22
11.6.1 MT200 Trolley Electricals – Exploded View 23
11.6.2 MT200 Trolley Electricals – Parts List 23
11.7.1 MT300 and MT500 Trolley Frame – Exploded View 24
11.7.2 MT300 and MT500 Trolley Frame – Parts List 25
11.8.1 MT300 and MT500 Trolley Motor – Exploded View 26
11.8.2 MT300 and MT500 Trolley Motor – Parts List 27
11.9.1 MT300 and MT500 Trolley Electricals – Exploded View 28
11.9.2 MT300 and MT500 Trolley Electricals – Parts List 28
12.0 Electrical connections 29
12.1 MT Trolley wiring 29
13.0 Warranty and Service 30

3.0 **Introduction**

This manual is provided by JET covering the safe operation and maintenance procedures for a JET MT Series Electric Trolley. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown.

The JET MT trolley ranges from 1/2 ton to 5 ton and is designed to pair with a TS series JET hoist. The trolley is made of thick steel elements, including side plates, wheel axles, suspension bolts, and center load plate. Wheels are hot-forged steel, and hardened steel comprises the gears and pinion, which is driven by a planetary gear reducer. Extensions are available to accommodate the width of most beam flanges.

This machine has been designed and constructed to provide consistent, long-term operation if used in accordance with instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or JET. JET can also be reached at our web site: www.jettools.com.

Record your purchase information here for quick reference:

Model No.:	Stock No.:	Serial No.:
Purchased From:		Date Purchased:
Date Installed:	Installer:	

The specifications in this manual were current at time of publication, but because of our policy of continuous improvement, JET reserves the right to change specifications at any time and without prior notice, without incurring obligations.

4.0 **MT Trolley Specifications**

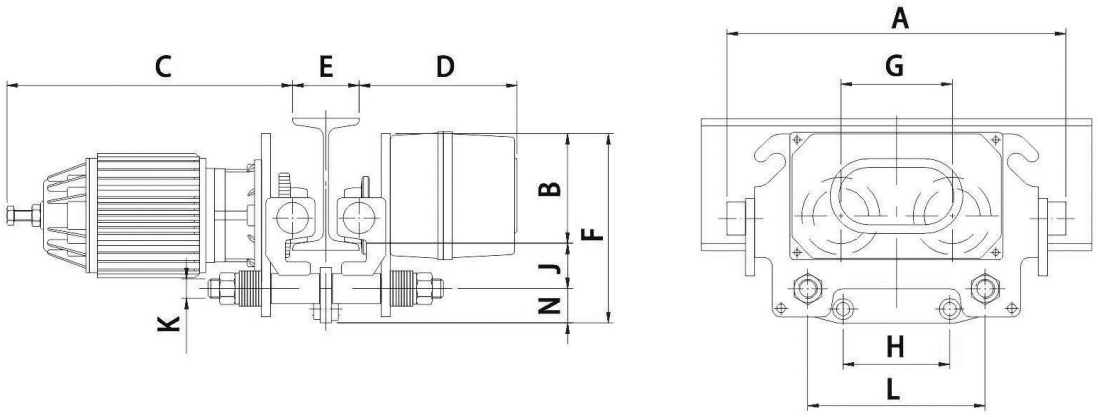


Figure 4-1: Trolley specs

4.1 **230 volt models**

			MT050	MT100	MT200	MT300	MT500
Stock no.			140183	140185	140187	140189	140190
Capacity			1/2 ton (500 kg)	1 ton (1000 kg)	2 ton (2000 kg)	3 ton (3000 kg)	5 ton (5000 kg)
Travel speed FPM (MPM)			79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)
Minimum radius of curve			4.25 ft. (1.3m)	4.25 ft. (1.3m)	5.5 ft. (1.7m)	6.5 ft. (2.0m)	6.5 ft. (2.0m)
Net weight			99 lbs. (45 kg)	99 lbs. (45 kg)	126 lbs. (57 kg)	196.2 lbs. (89 kg)	196.2 lbs. (89 kg)
Shipping weight			143 lbs. (64.8 kg)	143 lbs. (64.8 kg)	170 lbs. (77 kg)	243 lbs. (110 kg)	243 lbs. (110 kg)
Duty Cycle	Time Rating		30 min				
	Duty Rating		H4 (40/20%)				
	Max.starts per hour		240				
Motor	Horsepower	High Spd	0.16	0.24	0.5	0.8	0.8
		Low Spd	0.04	0.05	0.12	0.2	0.2
	Cycle		60 Hz				
	Phase		3 phase				
	Voltage		230V				
Current Draw (amperage)		High Spd	0.8	1.2	2.2	3.8	3.8
		Low Spd	0.6	0.9	1.7	2.2	2.2
Dimensions (Figure 5-1)							
A			15in (382mm)	15in (382mm)	15.4in (392mm)	17.4in (442mm)	17.4in (442mm)
B			4.9in (124.5mm)	4.9in (124.5mm)	4.92in (125mm)	5.3in (135mm)	5.3in (135mm)
C			12.8in (324mm)	12.8in (324mm)	14in (357mm)	15.6in (395mm)	15.6in (395mm)
D			7in (180mm)	7in (180mm)	7.2in (183mm)	7.2in (185mm)	7.2in (185mm)
E*			2.95~4.9in (75~125mm)	2.95~4.9in *(75~125mm)*	3.93~5.9in (100~150mm)	4.9~6.9in (125~175mm)	4.9~6.9in (125~175mm)
F			8.5in (217mm)	8.5in (217mm)	8.7in (221mm)	11.2in (285mm)	11.2in (285mm)
G			4.9in (125.5mm)	4.9in (125.5mm)	6.3in (159mm)	7.3in (185mm)	7.3in (185mm)
H			3.8in (95.5mm)	4.7in (120mm)	2.1in (52.5mm)	2.1in (52.5mm)	2.1in (52.5mm)
J			2in (51.5mm)	2in (51.5mm)	2.4in (60mm)	2.8in (70mm)	2.8in (70mm)
K			7/8”-9UNC (Ø22.2mm)	1”-8UNC (Ø25.4mm)	1-1/4”-7UNC (Ø31.75mm)	1-1/2”-6UNC (Ø38.1mm)	1-3/4”-5UNC (Ø44.5mm
L			7.9in (200mm)	7.9in (200mm)	9in (230mm)	9.8in (250mm)	9.8in (250mm)
N			1.6in (41mm)	1.6in (41mm)	1.4in (36mm)	2.3in (57.5mm)	2.3in (57.5mm)

Table 1

* The trolley can be extended for greater “E” widths than what are shown in the chart. See the optional extension kits listed in the appropriate parts list for each machine.

4.2 **460 volt models**

			MT050-4	MT100-4	MT200-4	MT300-4	MT500-4
Stock no.			144183	144185	144187	144189	144190
Capacity			1/2 ton (500 kg)	1 ton (1000 kg)	2 ton (2000 kg)	3 ton (3000 kg)	5 ton (5000 kg)
Travel speed FPM (MPM)			79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)	79 / 20 fpm (24 / 6 mpm)
Minimum radius of curve			4.25 ft. (1.3m)	4.25 ft. (1.3m)	5.5 ft. (1.7m)	6.5 ft. (2.0m)	6.5 ft. (2.0m)
Net weight			99 lbs. (45 kg)	99 lbs. (45 kg)	126 lbs. (57 kg)	196.2 lbs. (89 kg)	196.2 lbs. (89 kg)
Shipping weight			143 lbs. (64.8 kg)	143 lbs. (64.8 kg)	170 lbs. (77 kg)	243 lbs. (110 kg)	243 lbs. (110 kg)
Duty Cycle	Time Rating		30 min				
	Duty Rating		H4 (40/20%)				
	Max.starts per hour		240				
Motor	Horsepower	High Spd	0.16	0.24	0.5	0.8	0.8
		Low Spd	0.04	0.05	0.12	0.2	0.2
	Cycle		60 Hz				
	Phase		3 phase				
	Voltage		460V				
Current Draw (amperage)		High Spd	0.4	0.6	1.1	1.9	1.9
		Low Spd	0.3	0.5	0.8	1.1	1.1
Dimensions (Figure 5-1)							
A			15in (382mm)	15in (382mm)	15.4in (392mm)	17.4in (442mm)	17.4in (442mm)
B			4.9in (124.5mm)	4.9in (124.5mm)	4.92in (125mm)	5.3in (135mm)	5.3in (135mm)
C			12.8in (324mm)	12.8in (324mm)	14in (357mm)	15.6in (395mm)	15.6in (395mm)
D			7in (180mm)	7in (180mm)	7.2in (183mm)	7.2in (185mm)	7.2in (185mm)
E*			2.95~4.9in (75~125mm)	2.95~4.9in *(75~125mm)*	3.93~5.9in (100~150mm)	4.9~6.9in (125~175mm)	4.9~6.9in (125~175mm)
F			8.5in (217mm)	8.5in (217mm)	8.7in (221mm)	11.2in (285mm)	11.2in (285mm)
G			4.9in (125.5mm)	4.9in (125.5mm)	6.3in (159mm)	7.3in (185mm)	7.3in (185mm)
H			3.8in (95.5mm)	4.7in (120mm)	2.1in (52.5mm)	2.1in (52.5mm)	2.1in (52.5mm)
J			2in (51.5mm)	2in (51.5mm)	2.4in (60mm)	2.8in (70mm)	2.8in (70mm)
K			7/8”-9UNC (Ø22.2mm)	1”-8UNC (Ø25.4mm)	1-1/4”-7UNC (Ø31.75mm)	1-1/2”-6UNC (Ø38.1mm)	1-3/4”-5UNC (Ø44.5mm
L			7.9in (200mm)	7.9in (200mm)	9in (230mm)	9.8in (250mm)	9.8in (250mm)
N			1.6in (41mm)	1.6in (41mm)	1.4in (36mm)	2.3in (57.5mm)	2.3in (57.5mm)

Table 2

* The trolley can be extended for greater “E” widths than what are shown in the chart. See the optional extension kits listed in the appropriate parts list for each machine.

4.3 **MT trolley with TS series hoist – dimensions**

MT Trolleys are designed to pair with the TS hoists. Voltage of trolley must match voltage of hoist.

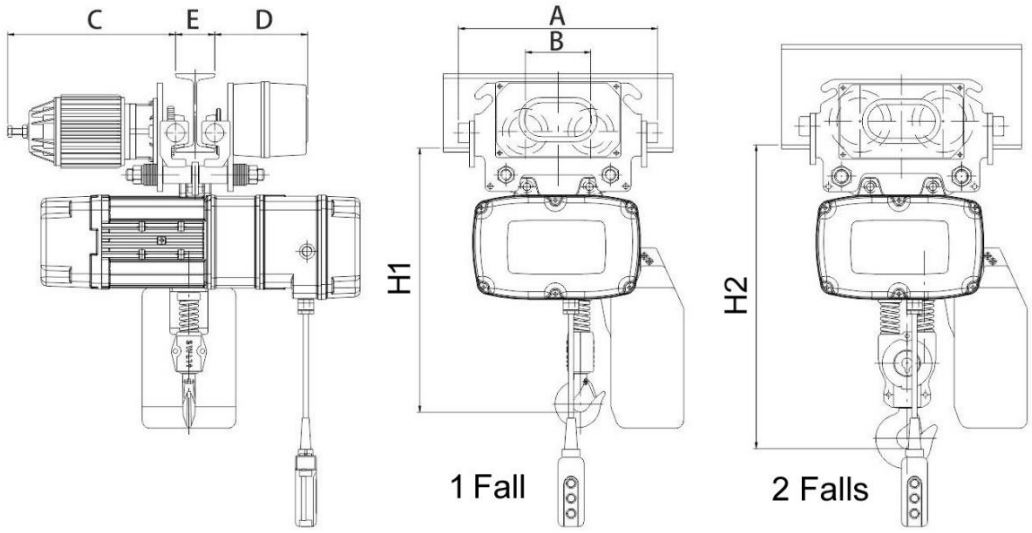


Figure 4-2

Hoist model 230V		TS050-230	TS100-230	TS200-230	TS300-230	TS500-230
Trolley 230V	model no.	MT050	MT100	MT200	MT300	MT500
	stock no.	140183	140185	140187	140189	140190
Hoist model 460V		TS050-460	TS100-460	TS200-460	TS300-460	TS500-460
Trolley 460V	model no.	MT050-4	MT100-4	MT200-4	MT300-4	MT500-4
	stock no.	144183	144185	144187	144189	144190
A		15-3/16" (385mm)	15-3/16" (385mm)	15-9/16" (395mm)	17-1/2" (445mm)	17-1/2" (445mm)
B		4-15/16" (126mm)	4-15/16" (126mm)	6-1/4" (159mm)	7-5/16" (185mm)	7-5/16" (185mm)
C		12-13/16" (325mm)	12-13/16" (325mm)	14-3/16" (360mm)	15-3/4" (400mm)	15-3/4" (400mm)
D		7-1/16" (180mm)	7-1/16" (180mm)	7-5/16" (185mm)	7-11/16" (195mm)	7-11/16" (195mm)
E*		2-15/16~4-15/16" (75~125mm)	2-15/16~4-15/16" (75~125mm)	3-15/16~5-7/8" (100~150mm)	4-15/16~6-7/8" (125~175mm)	4-15/16~6-7/8" (125~175mm)
H1		19-11/16" (500mm)	21-1/16" (535mm)	38-3/16" (970mm)	-----	-----
H2		-----	-----	-----	39-3/8" (1000mm)	41-5/16" (1050mm)

Table 3

* The trolley can be extended for greater “E” widths than what are shown in the chart. See the optional extension kits which are listed in the appropriate parts list for each machine.

⚠WARNING

Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.

5.0 Unpacking

Open shipping container and check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Trolley is assembled and running properly.

Compare the contents of your container with the following parts list to make sure all parts are intact. Missing parts, if any, should be reported to your distributor. Read the instruction manual thoroughly for assembly, maintenance and safety instructions.

5.1 Contents of Shipping Container

1 Electric Trolley
1 Owner's manual
1 Product registration card
1 Test report

6.0 Installation & Assembly

The MT Series trolley is designed to run on standard "I" beams, wide-flanged "H" beams, or curved track with a minimum radius shown in the chart in sect. 5.0.

6.1 Mount trolley to beam

⚠CAUTION **The trolley is heavy; use an assistant or a lifting device to help stabilize it while you assemble it to the beam.**

Note: Mount the trolley to the beam first before mounting a hoist to it.

1. Measure the width of the beam flange on which the trolley will operate. This is important as beam flanges may vary in width. See sect. 4.1 for the beam width range for your specific trolley.
2. Determine the arrangement of spacer washers between the trolley side frames based upon the measurement. Spacers must be moved in sets of two to maintain centerline of trolley.

   Distance between trackwheel flanges should be 1/8- to 2-inches (3 to 5mm) greater than the beam flange width for straight runway beams, and 3/16- to 9/32-inches (5 to 7mm) for sharply curved beams.
3. Loosely assemble side frames, position tubes, spacer washers and nuts on the stay bolts. See Figure 6-1.
4. Install the trolley on the beam by sliding one side plate out enough to allow trackwheels to clear the beam.
5. Make sure the trackwheels are riding on the beam, and draw the side plates together. Tighten the nuts securely.

   Note: If the trolley sits at a slight angle, this is normal. The weight of the hoist or load will level it to horizontal.

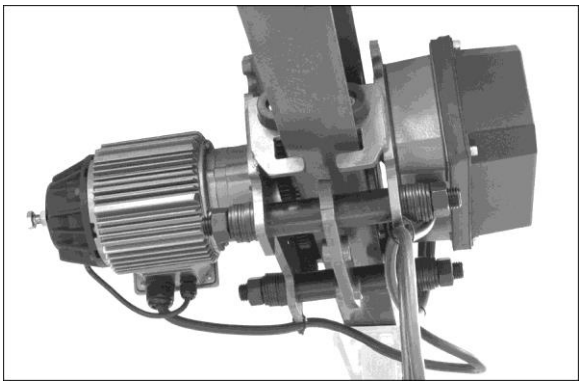


Figure 6-1

End stops must be installed at the exposed ends of a beam. These will be contacted by the rubber bumpers on the trolley to help cushion impact.

⚠WARNING **Open-end beams must have the proper end stops installed to prevent the trolley from running off the beam. Failure to comply may cause serious injury and/or property damage.**

6.2 Mount hoist to trolley

This trolley has been designed to accommodate the JET TS-Series Hoist. They can be connected so that one pendant cord and power cord will operate both trolley and hoist. Make sure the hoist has been set to the same voltage specifications as the trolley, and matches the size and load capacity of the hoist that will be connected to it.

1. The trolley has been assembled to the beam. However, the trolley should also be stabilized by **an additional support system, such as chains,** until the hoist mounting system is completed. See Figure 6-2.



Figure 6-2

2. Align tabs on top of hoist (Figures 6-3,6-4) to holes on underside of trolley. Secure with the existing pins, washers and hex nuts.

   The hoist should be oriented so that the electrical strain reliefs on hoist and trolley are at the same end. Make sure hoist is securely mounted.

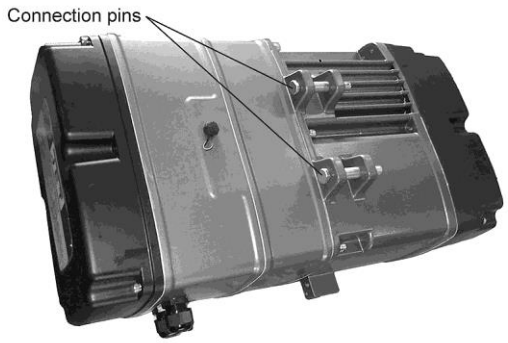


Figure 6-3

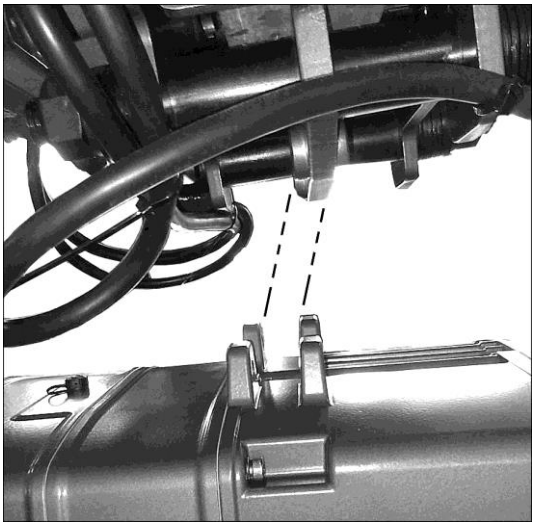


Figure 6-4

3. Bring the trolley *power* cable into the hoist through the cable gland. See Figure 6-5. Connect the four wires from the trolley cable to the **KM1** contactor, as described in Figure 6-5.

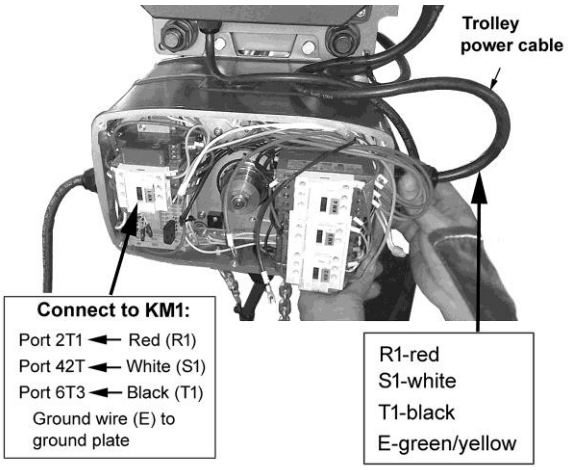


Figure 6-5

4. Locate the grey and orange wires in the hoist. See Figure 6-6. The grey wire will control the forward movement of the trolley. The orange wire will control the reverse movement of the trolley.

5. Bring the trolley control cable through the second gland on the same side of the hoist, and connect it as follows.

   Connect #1 Red wire to port A2 of the **KM3** contactor.

   Connect #2 White wire to the grey wire.

   Connect #3 Black wire to the orange wire.

   Connect E grounding wire to the ground plate.

   Note: if you connect the #2 White wire to the orange wire (instead of the grey), the motor movement will be reversed.

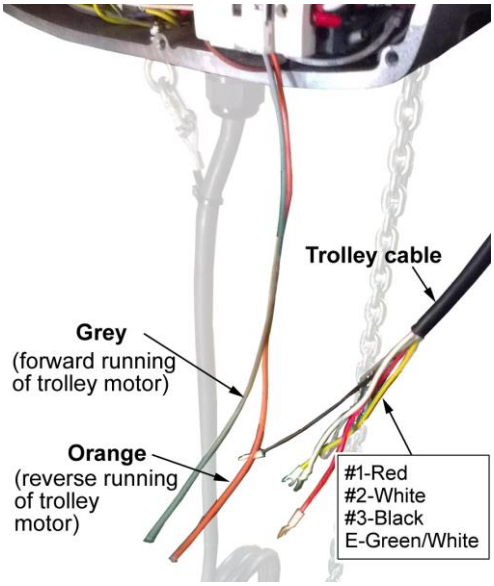


Figure 6-6

6. Trolley and hoist are now connected. Remove the chain support from atop the trolley.

7. Proceed to *sect. 7.0* for electrical connections.

7.0 Electrical connections

⚠WARNING Electrical connections must be made by a qualified electrician in compliance with all relevant codes. This machine must be properly grounded to help prevent electrical shock and possible fatal injury.

7.1 GROUNDING INSTRUCTIONS

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

The trolley power cord must be correctly wired into the hoist, and the hoist power cord must be fitted with an appropriate UL/CSA listed plug, or can be "hard-wired" directly to a control panel. If hard-wired, make sure a disconnect is available for the operator.

If a plug is installed, it must have an equipment-grounding conductor and a grounding prong. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding connector. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Repair or replace damaged or worn cord immediately.

7.2 Extension Cords

If an extension cord is necessary, make sure the cord rating is suitable for the amperage listed on the trolley's motor plate. An undersize cord will cause a drop in line voltage resulting in loss of power and overheating.

The chart in Table 3 shows the correct size cord to use based on cord length and motor plate amp rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Recommended Gauges (AWG) of Extension Cords

	Extension Cord Length *					
Amps	25 feet	50 feet	75 feet	100 feet	150 feet	200 feet
< 5	16	16	16	14	12	12
5 to 8	16	16	14	12	10	NR
8 to 12	14	14	12	10	NR	NR
12 to 15	12	12	10	10	NR	NR
15 to 20	10	10	10	NR	NR	NR
21 to 30	10	NR	NR	NR	NR	NR

*based on limiting the line voltage drop to 5V at 150% of the rated amperes.
NR: Not Recommended.

Table 4

7.3 Inspecting trolley motion

1. Before closing the circuit breaker and testing the trolley, check that wiring has been complete. If the trolley cannot be observed when the circuit breaker is closed, station an observer within sight of the trolley to report any movement when power is applied to the trolley. Be prepared to disconnect power if trolley motor starts when the power is applied. The trolley must remain motionless when power is applied. Find and correct any problems before continuing.
2. After all assembly and wiring is complete, operate trolley forward and back a short distance, then do likewise for the entire length of the beam. Confirm that all adjustments and operations are satisfactory.

8.0 **User-maintenance**

The trolley should be inspected on a routine basis, with particular attention to these:

- Tightness of all fasteners
- Cables/leads for broken wires, corroded or loose terminals, damaged insulation.
- Contactors and pendant controls for loose or corroded terminals.
- Trackwheels for worn tread, flanges, or bearings.
- Trackwheel gears and pinion for wear.

8.1 **Brake inspection**

The motor brake should be inspected periodically for wear of brake lining and disc. If either is worn so that the brake cannot perform efficiently, they should be replaced.

The gap between brake lining and disc can be adjusted by the bolt shown in Figure 8-1.

Loosen nut and fully tighten adjustment bolt. Then *loosen* the bolt two rotations. Retighten nut against motor housing to secure setting.

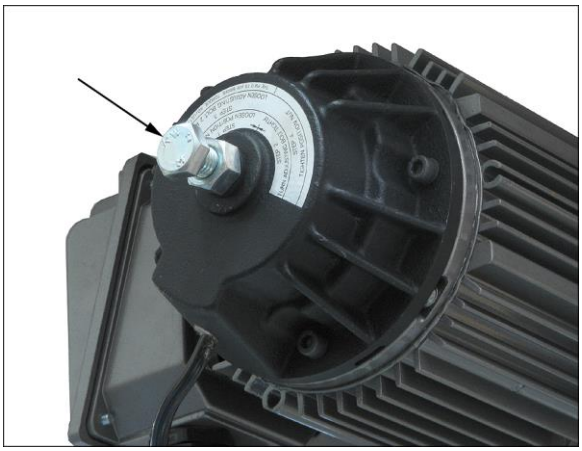


Figure 8-1

8.2 **Lubrication**

Monthly lubricate the track wheel gear and pinion with grease.

Change out the motor gearbox grease after 100 hours of operation, then every 6 months or 2500 hours of normal service. Use a No. 3 grease, such as Mobil Cup Grease 3 or equivalent.

8.3 **Additional servicing**

Any other servicing should be performed by an authorized service representative.

9.0 **Pendant controllers for Trolley with TS Hoist**

Part no.	Description
140196	WIRED PENDANT, 4-BTN, TS+MT, for 10FT Hoist
140197	WIRED PENDANT, 4-BTN, TS+MT, for 15FT Hoist
140198	WIRED PENDANT, 4-BTN, TS+MT, for 20FT Hoist

Table 5

10.0 **Troubleshooting MT Series Trolleys**

Table 6

WARNING: Some remedies may required a qualified electrician.

Trouble	Probable Cause	Remedy
Trolley will not operate, or operates intermittently.	No incoming power, or low voltage.	Check trolley connections to power source. Make sure power source matches specifications on trolley name plate. If low voltage, have certified electrician check incoming power. Voltage that falls outside of +/-10% of rated power will result in improper operation and potential motor damage.
	Fuse blown or circuit breaker tripped.	Replace fuse/reset circuit breaker.
	Improper connections between trolley and TS model JET hoist.	Inspect wiring connections; review instructions.
	Conductors in pendant cord damaged.	Check for continuity in each conductor. If faulty, replace entire pendant cord.
	Motor damaged.	Have motor inspected and repaired/ replaced by a qualified service technician.
Trolley performs slugglishly	Rail/beam is dirty or worn.	Clean rail as part of regular inspection process.
Trolley continues movement after brake applied.	Grease or oil on the brake lining.	Disassemble brake and clean the lining.
	Brake pad is worn or damaged.	Replace brake pad.
Hoist moves in wrong direction.	Two of the three power supply wires are switched.	Switch any two of the three supply wires.
	Improper connections with hoist. (#2 white wire connected to orange instead of grey wire.)	Review instructions and rewire.
Motor overheats.	Excessive load or too frequent use.	Operate within rated load and according to duty cycle rating.
	Low voltage.	Have certified electrician check incoming power. Voltage that falls outside of +/-10% of rated power will result in improper operation and potential motor damage.
	Brake is dragging.	Have brake repaired or replaced by a qualified service technician.
	Ambient temperature exceeds normal range.	Reduce operating times of the trolley. Use measures to help shield the trolley from excessive ambient heat.

11.0 **Replacement Parts**

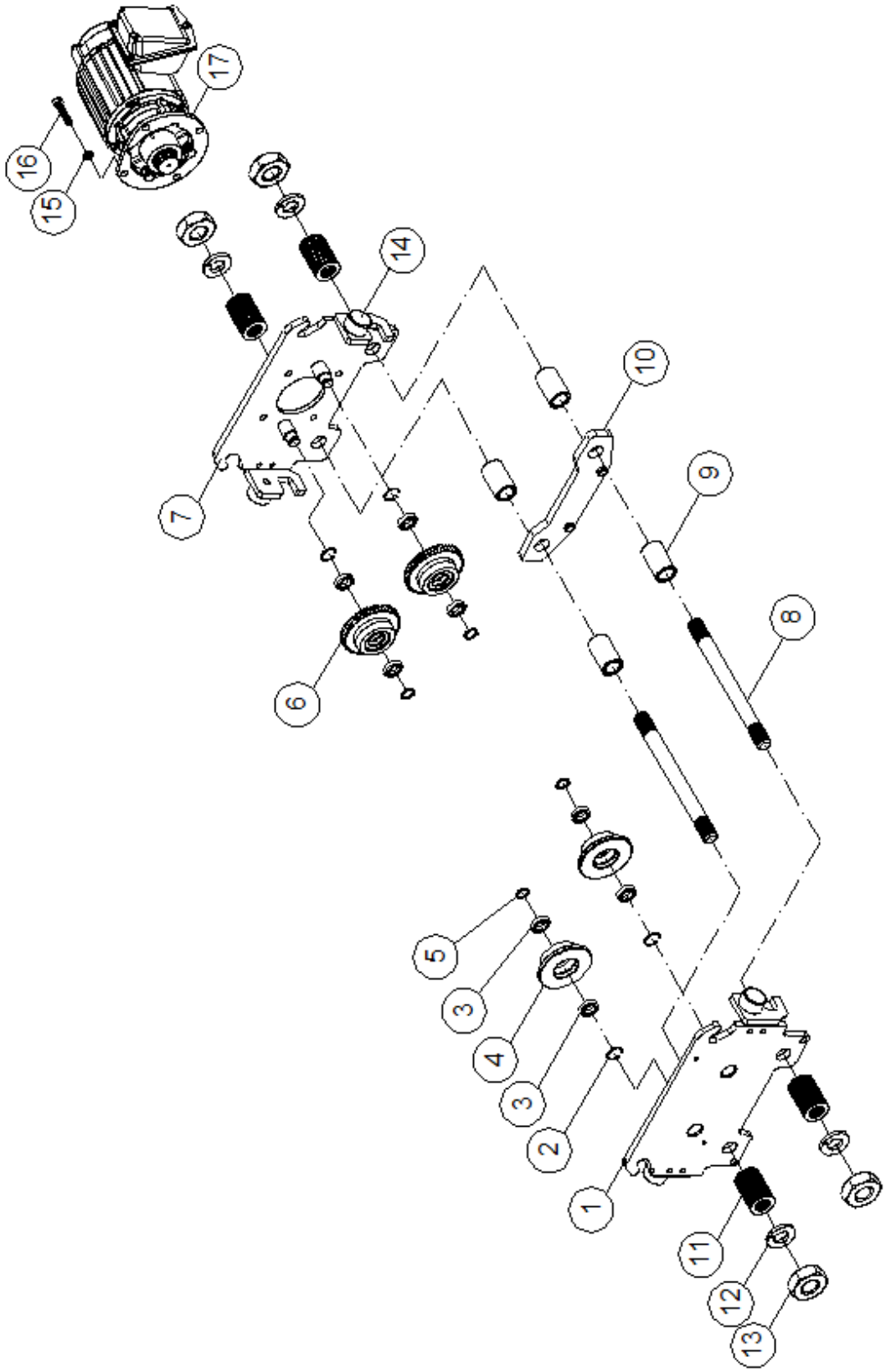
Replacement parts are listed on the following pages. To order parts or reach our service department, call 1-800-274-6848 Monday through Friday, 8:00 a.m. to 5:00 p.m. CST. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Non-proprietary parts, such as fasteners, can be found at local hardware stores, or may be ordered from JET.

Some parts are shown for reference only, and may not be available individually.

NOTE: If an item shows two part numbers, the trolley model on which it is used can be identified by the part number.

11.1.1 **MT050 and MT100 Trolley Frame – Exploded View**



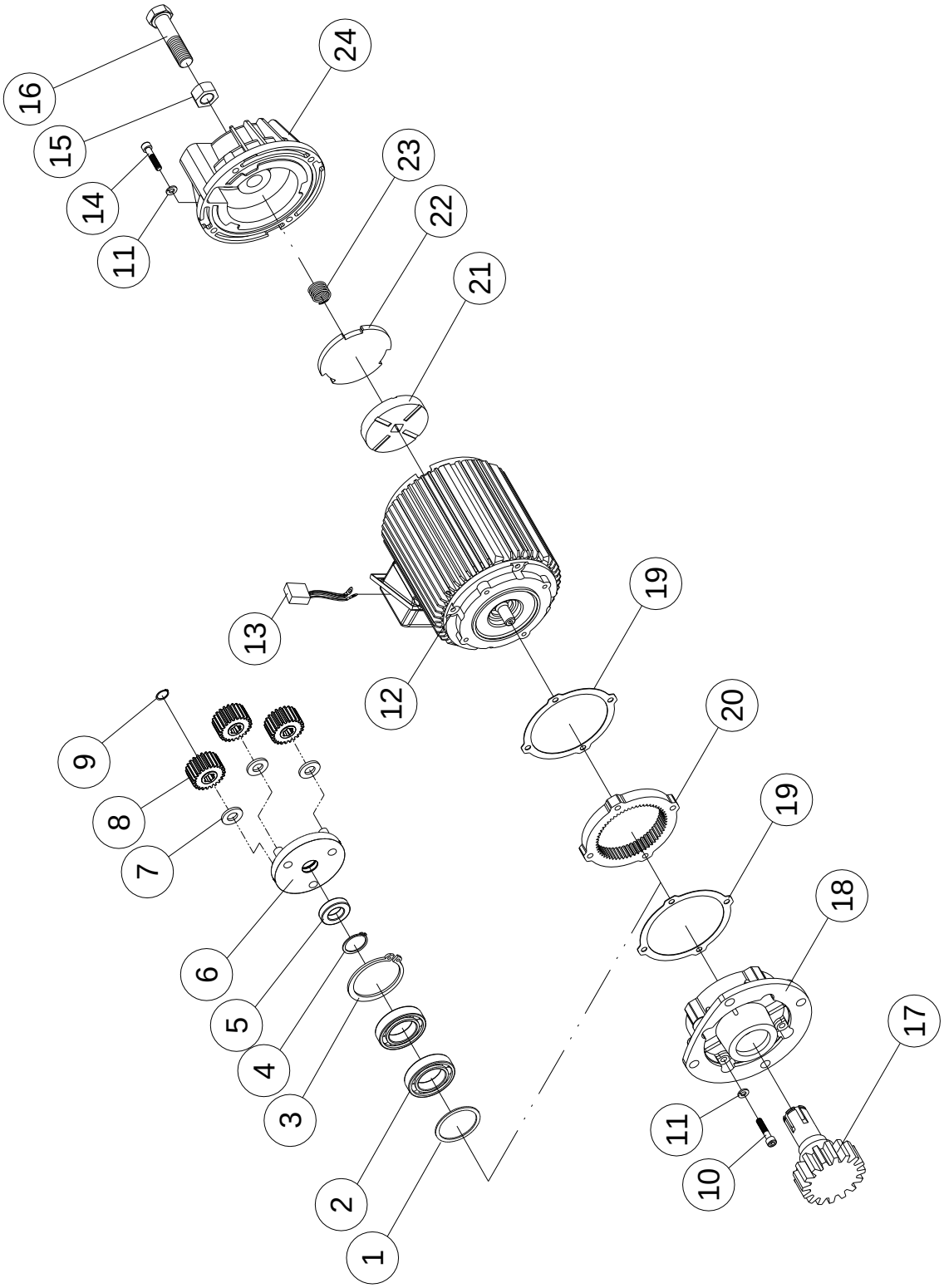
11.1.2 **MT050 and MT100 Trolley Frame – Parts List**

Index No.	Part No.	Description	Size	Qty
1	MT050-A01	Electric Frame Assembly		1
	MT100-A01	Electric Frame Assembly		1
2	F006035	C-Retaining Ring, Int	R-40	4
3	BB-6203ZZ	Bearing	6203ZZ	4
4	MT050-A04	Plain Wheel	Ø88×28L	2
5	F006045	C-Retaining Ring, Ext	S-17	4
6	MT050-A06	Gear Wheel	M2×46T×33L	2
7	MT050-A07	Motor Frame Assembly		1
	MT100-A07	Motor Frame Assembly		1
8	MT050-A08	Stay Bolt	7/8"×9UNC×265L	2
	MT100-A08	Stay Bolt	1"×8UNC×265L	2
9	MT050-A09	Position Tube	Ø34×Ø24×56L	4
	MT100-A09	Position Tube	Ø38×Ø28×56L	4
10	MT050-A10	Load Bracket		1
	MT100-A10	Load Bracket		1
11	MT050-A11	Spacer Washer	Ø40×Ø24×1/8"	32
	MT100-A11	Spacer Washer	Ø46×Ø27×1/8"	32
12	MT050-A12	Spring Washer	7/8"	4
	MT100-A12	Spring Washer	1"	4
13	MT050-A13	Hex. Nut	7/8"×9UNC	4
	MT100-A13	Hex. Nut	1”x8UNC	4
14	MT050-A14	Bumper		4
15	TS-2361101	Spring Washer	M10	4
16	TS-1491021	Hex. Head Bolt	M10×1.5×20L	4
17	MT050-A17	Motor Assembly	3~230V,60Hz,0.12/0.03kW	1
	MT100-A17	Motor Assembly	3~230V,60Hz,0.18/0.04kW	1

Extension Kit Accessories for MT050 and MT100

Part No.	Description	“E” width, sect. 4.0	
MT050-A08AB	Includes #8, #9, #11~#13	4.96~8.26 in. (126~210mm)	OPTIONAL
MT050-A08AC	Includes #8, #9, #11~#13	8.3~12.2 in. (211~310mm)	OPTIONAL
MT100-A08AB	Includes #8, #9, #11~#13	4.96~8.26 in. (126~210mm)	OPTIONAL
MT100-A08AC	Includes #8, #9, #11~#13	8.3~12.2 in. (211~310mm)	OPTIONAL

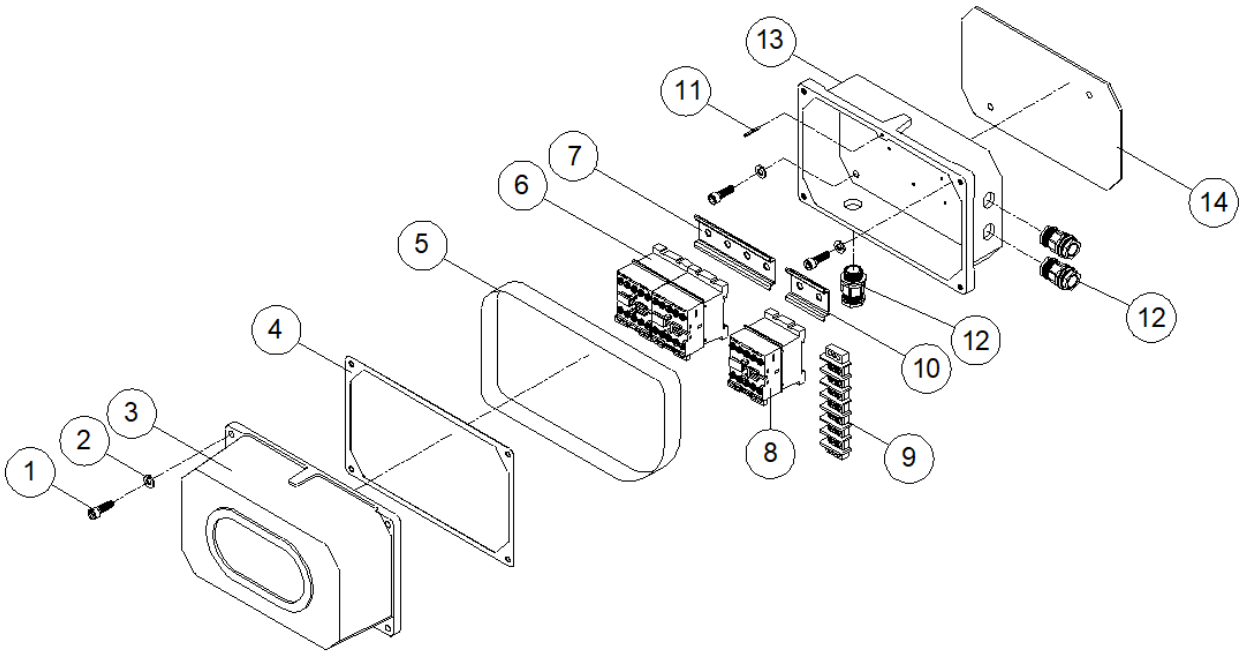
11.2.1 MT050 and MT100 Trolley Motor – Exploded View



11.2.2 **MT050 and MT100 Trolley Motor – Parts List**

Index No.	Part No.	Description	Size	Qty
1	MT050-B01	Oil Seal	Ø25×Ø40×6t	1
2	BB-6204Z	Bearing	6204Z	2
3	F006075	C-Retaining Ring, Int	R-47	1
4	F006047	C-Retaining Ring, Ext	S-20	1
5	MT050-B05	Axle Sleeve		1
6	MT050-B06	Reducing Gear Frame Assembly		1
7	MT050-B07	Flat Washer	Ø21×Ø11×2t	3
8	MT050-B08	Planetary Gear		3
9	F006040	C-Retaining Ring, Ext	S-10	3
10	MT050-B10	Hex. Head Bolt	M6×1×60L	4
11	TS-2361061	Spring Washer	M6	8
12	MT050-B12	Motor Stator Assembly	3~230V60Hz0.12/0.03kW	1
	MT050-B12M	Motor Stator Assembly	3~460V60Hz0.12/0.03kW	1
	MT100-B12	Motor Stator Assembly	3~230V60Hz0.18/0.04kW	1
	MT100-B12M	Motor Stator Assembly	3~460V60Hz0.18/0.04kW	1
13	MT050-B13	Rectifier		1
14	TS-1482041	Hex. Head Bolt	M6×1.0×20L	4
15	TS-1540081	Nut	M12×1.75	1
16	TS-1492021	Hex. Head Bolt	M12×1.75×30L	1
17	MT050-B17	Transmission Shaft With Pinion		1
18	MT050-B18	Gear Box		1
19	MT050-B19	Gear Box Gasket		2
20	MT050-B20	Internal Ring Gear		1
21	MT050-B21	Brake Lining Assembly		1
22	MT050-B22	Brake Disc		1
23	MT050-B23	Brake Spring		1
24	MT050-B24	Brake Drum Assembly		1

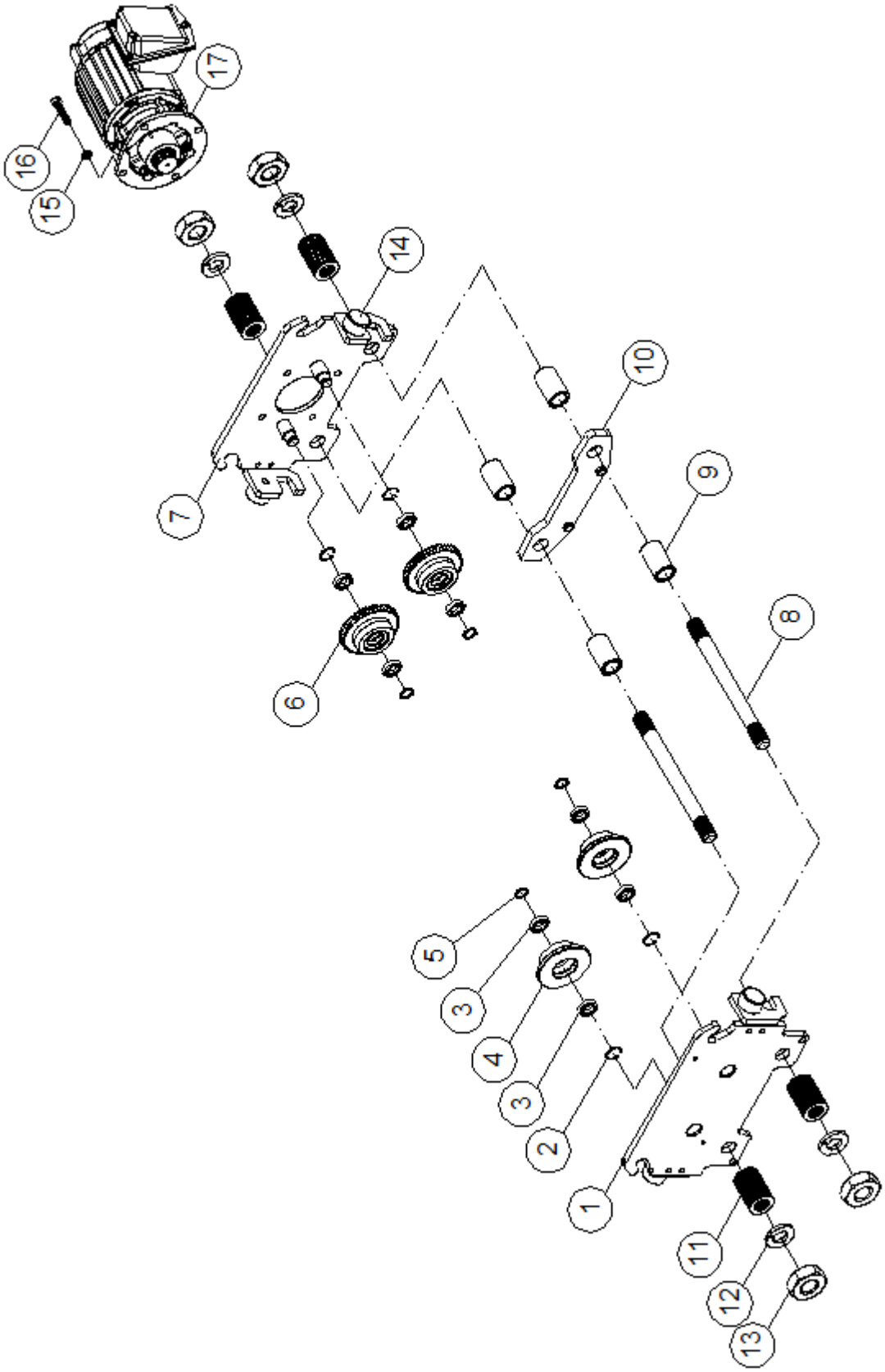
11.3.1 **MT050 and MT100 Trolley Electricals – Exploded View**



11.3.2 **MT050 and MT100 Trolley Electricals – Parts List**

Index No.	Part No.	Description	Size	Qty
1	TS-1482031	Socket Hd Cap Screw	M6×1.0×16L	6
2	TS-2361061	Spring Washer	M6	6
3	MT050-C03	Electric Housing Cover		1
4	MT050-C04	Gasket	#15	1
5	MT050-C05	Rubber Band		1
6	MT050-C06	Magnetic Contactor 110V	LC1-D09-F7	2
7	MT050-C07	Contactor Rail	2PC	1
8	MT050-C08	Magnetic Contactor 110V	LC1-D128-F7	1
9	MT050-C09	Terminal Block		1
10	MT050-C10	Contactor Rail	1PC	1
11	40317-15	Spring Pin	Ø3×14L	1
12	MT050-C12	Cable Gland	M20	3
13	MT050-C13	Electric Housing		1
14	MT050-C14	Gasket	#16	1

11.4.1 **MT200 Trolley Frame – Exploded View**



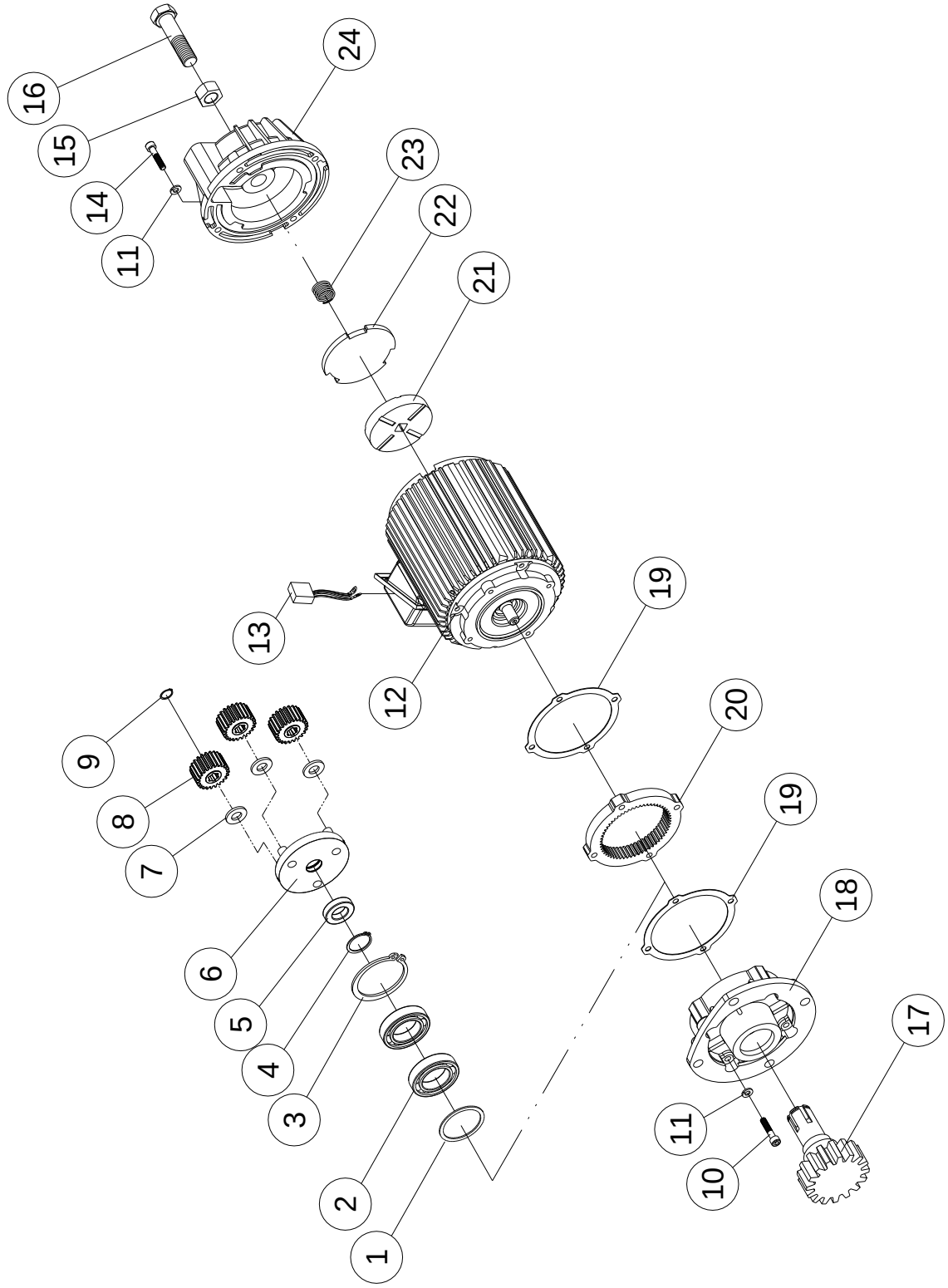
11.4.2 **MT200 Trolley Frame – Parts List**

Index No.	Part No.	Description	Size	Qty
1	MT200-A01	Electric Frame Assembly		1
3	BB-6205ZZ	Bearing	6205ZZ	8
4	MT200-A04	Plain Wheel	Ø119×49L	2
5	F006050	C-Retaining Ring, Ext	S-25	4
6	MT200-A06	Gear Wheel	Ø130×54L	2
7	MT200-A07	Motor Frame Assembly		1
8	MT200-A08	Stay Bolt	1-1/4"×7UNC×335L	2
9	MT200-A09	Position Tube	Ø48×Ø34×69L	4
10	MT200-A10	Load Bracket		1
11	MT200-A11	Spacer Washer	Ø54×Ø34×1/8"	32
12	MT200-A12	Spring Washer	1-1/4"	4
13	MT200-A13	Hex. Nut	1-1/4"×7UNC	4
14	MT050-A14	Bumper		2
15	TS-2361101	Spring Washer	M10	4
16	TS-1491031	Hex. Head Bolt	M10×1.5×25L	4
17	MT200-A17	Motor Assembly	3~230V60Hz0.37/0.09kW	1
	MT200-A17M	Motor Assembly	3~460V60Hz0.37/0.09kW	1

Extension Kit Accessories for MT200

Part No.	Description	"E" width, *sect. 4.0*	
MT200-A08AB	Includes #8, #9, #11~#13	5.94~8.85 in. (151~225mm)	OPTIONAL
MT200-A08AC	Includes #8, #9, #11~#13	8.89~12.2 in. (226~310mm)	OPTIONAL

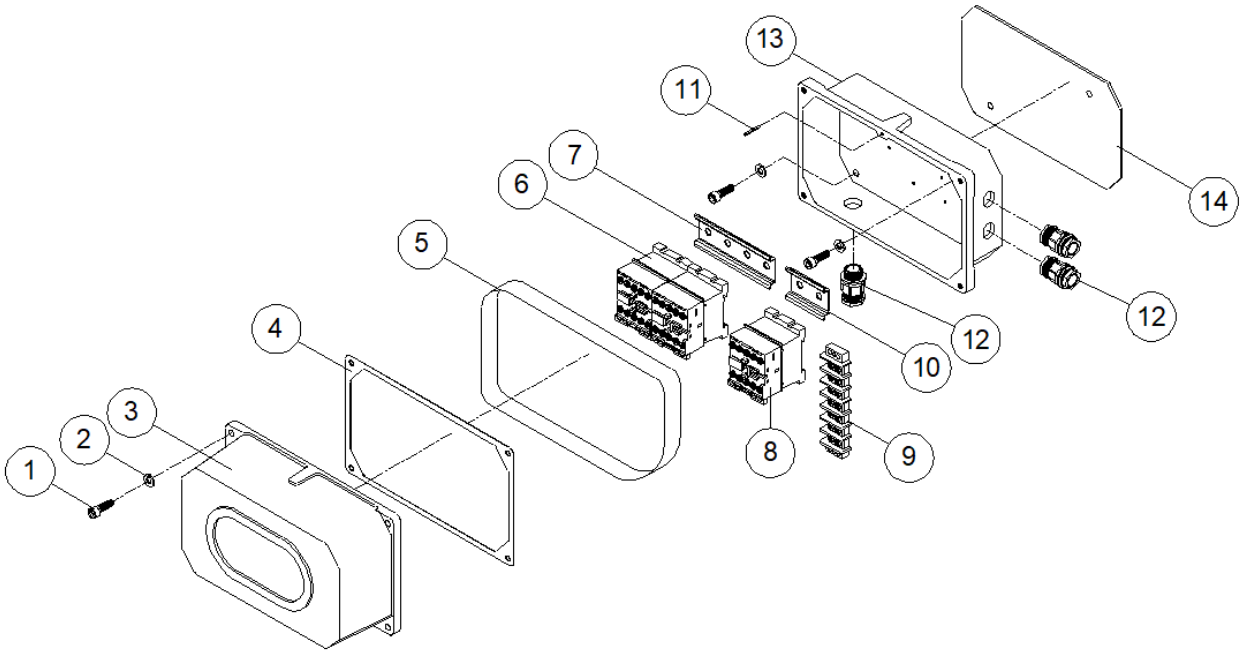
11.5.1 **MT200 Trolley Motor – Exploded View**



11.5.2 **MT200 Trolley Motor – Parts List**

Index No.	Part No.	Description	Size	Qty
1	MT050-B01	Oil Seal	Ø25×Ø40×6t	1
2	BB-6204Z	Bearing	6204Z	2
3	MT050-B03	Retaining Ring	R-47	1
4	MT050-B04	Retaining Ring	S-20	1
5	MT050-B05	Axle Sleeve		1
6	MT050-B06	Reducing Gear Frame Ass'y		1
7	MT050-B07	Flat Washer	Ø21×Ø11×2t	3
8	MT050-B08	Planetary Gear		3
9	MT050-B09	Retaining Ring	S-10	3
10	MT050-B10	Hex. Head Bolt	M6×1×60L	4
11	TS-2361061	Spring Washer	M6	8
12	MT200-B12	Motor Stator Ass'y	3~230V60Hz0.37/0.09kW	1
	MT200-B12M	Motor Stator Assembly	3~460V60Hz0.37/0.09kW	1
13	MT050-B13	Rectifier		1
14	TS-1482041	Hex. Head Bolt	M6×1.0×20L	4
15	TS-1540081	Nut	M12×1.75	1
16	TS-1492021	Hex. Head Bolt	M12×1.75×30L	1
17	MT200-B17	Transmission Shaft With Pinion		1
18	MT050-B18	Gear Box		1
19	MT050-B19	Gear Box Gasket		2
20	MT050-B20	Internal Ring Gear		1
21	MT050-B21	Brake Lining Ass'y		1
22	MT050-B22	Brake Disc		1
23	MT050-B23	Brake Spring		1
24	MT050-B24	Brake Drum Ass'y		1

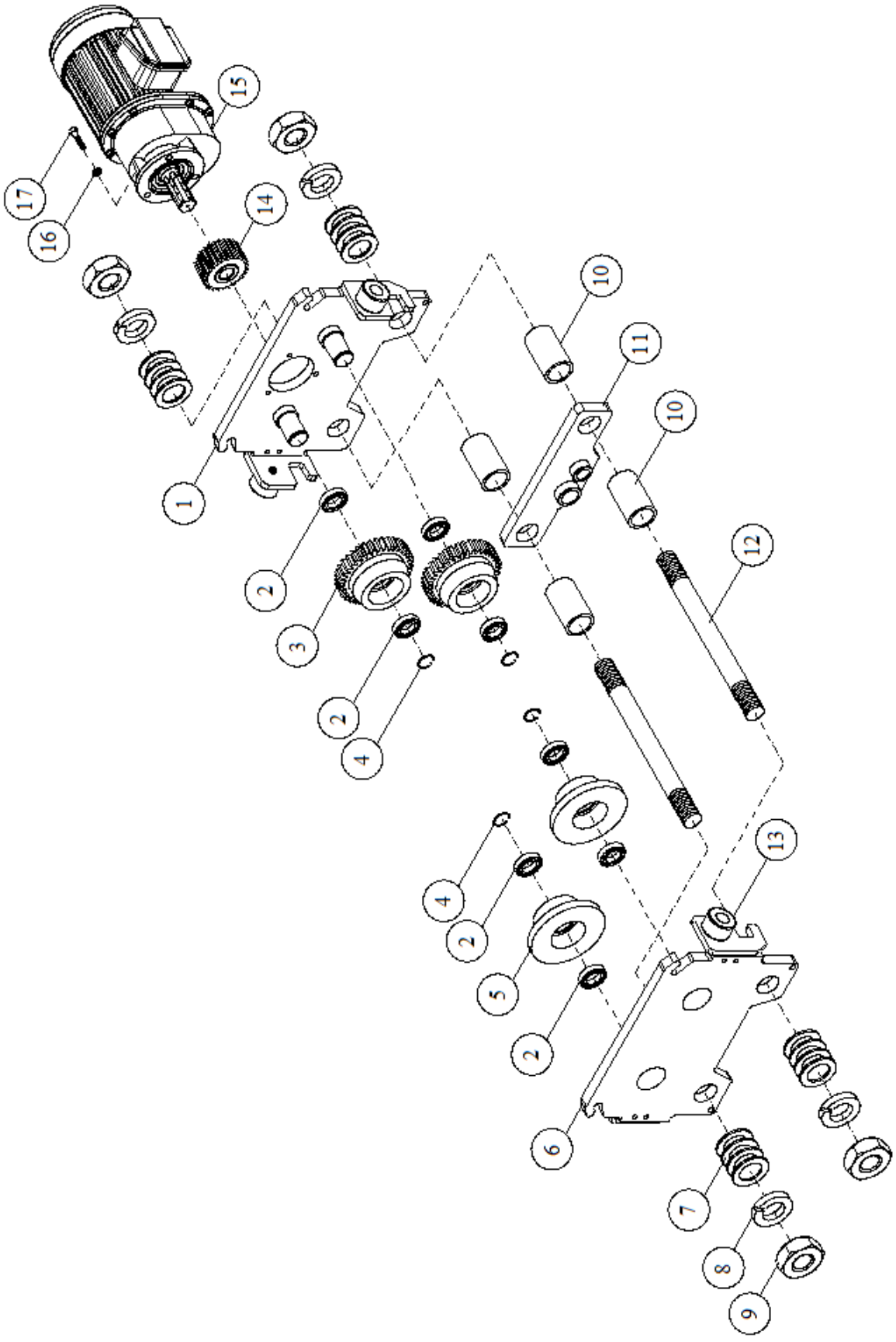
11.6.1 **MT200 Trolley Electricals – Exploded View**



11.6.2 **MT200 Trolley Electricals – Parts List**

Index No.	Part No.	Description	Size	Qty
1	TS-1503041	Socket Hd Cap Screw	M6×1.0×16L	6
2	TS-2361061	Spring Washer	M6	6
3	MT050-C03	Electric Housing Cover		1
4	MT050-C04	Gasket #15		1
5	MT050-C05	Rubber Band		1
6	MT050-C06	Magnetic Contactor 110V	LC1-D09-F7	2
7	MT050-C07	Contactor Rail	2PC	1
8	MT050-C08	Magnetic Contactor 110V	LC1-D128-F7	1
9	MT050-C09	Terminal Block		1
10	MT050-C10	Contactor Rail	1PC	1
11	MT050-C11	Spring Pin	Ø3×14L	1
12	MT050-C12	Cable Gland	M20	3
13	MT050-C13	Electric Housing		1
14	MT050-C14	Gasket #16		1

11.7.1 **MT300 and MT500 Trolley Frame – Exploded View**



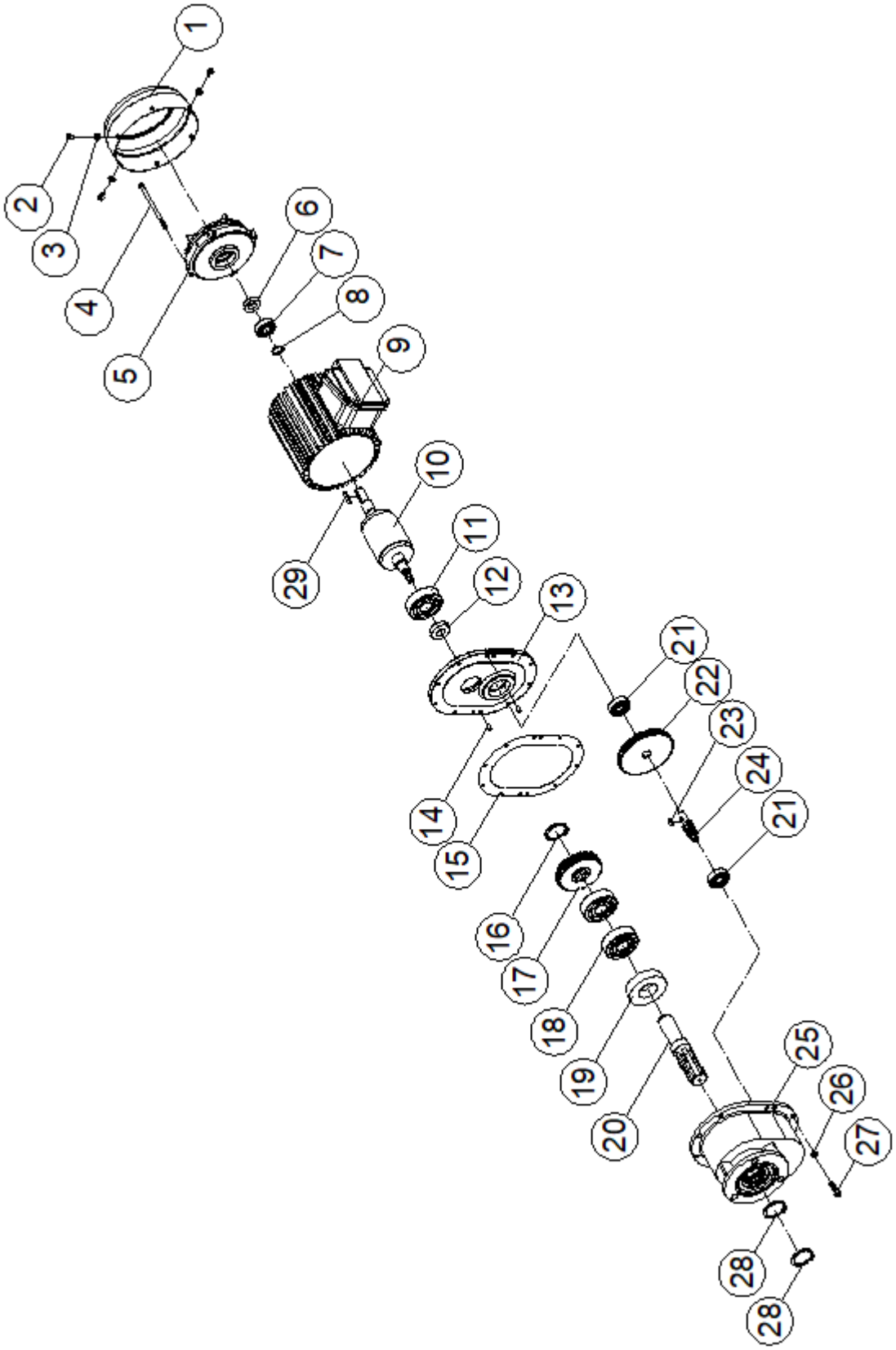
11.7.2 **MT300 and MT500 Trolley Frame – Parts List**

Index No.	Part No.	Description	Size	Qty
1	MT300-A01	Motor Frame Assembly		1
	MT500-A01			1
2	BB-6207Z	Bearing	6207Z	8
3	MT300-A03	Gear Wheel	M3.5×39T×67L	2
4	F006054	C-Retaining Ring, Ext	S-35	4
5	MT300-A05	Plain Wheel	Ø143.5×59L	2
6	MT300-A06	Electric Frame Assembly		1
	MT500-A06			1
7	MT300-A07	Spacer Washer	Ø60×Ø40×1/8"	32
	MT500-A07		Ø60×Ø47×6.5L	16
8	MT300-A08	Spring Washer	1-1/2"	4
	MT500-A08		1-3/4”	4
9	MT300-A09	Hex. Nut	1-1/2"×6UNC	4
	MT500-A09		1-3/4”x5UNC	4
10	MT300-A10	Position Tube	Ø50×Ø40×83.5L	4
	MT500-A10		Ø60×Ø47×83L	4
11	MT300-A11	Load Bracket		1
	MT500-A11			1
12	MT300-A12	Stay Bolt	1-1/2"×6UNC×390L	2
	MT500-A12		1-3/4”x5UNCx415L	2
13	MT050-A13	Bumper		4
14	MT300-A14	Pinion	M3.5×16T×49L	1
15	MT300-A15	Reducing Gear Motor Assembly	3~230V60Hz0.6/0.15Kw	1
	MT300-A15M	Reducing Gear Motor Assembly	3~460V60Hz0.6/0.15Kw	1
16	TS-2361081	Spring Washer	M8	3
17	TS-1504061	Hex. Bolt	M8×1.25×30L	3

Extension Kit Accessories, for MT300 and MT500

Part No.	Description	“E” width, *sect. 4.0*	
MT300-A12AB	Includes #8, #9, #11~#13	6.92~9.84 in. (176~250mm)	OPTIONAL
MT300-A12AC	Includes #8, #9, #11~#13	9.88~12.2 in. (251~310mm)	OPTIONAL
MT500-A12AB	Includes #8, #9, #11~#13	6.92~9.84 in. (176~250mm)	OPTIONAL
MT500-A12AC	Includes #8, #9, #11~#13	9.88~12.2 in. (251~310mm)	OPTIONAL

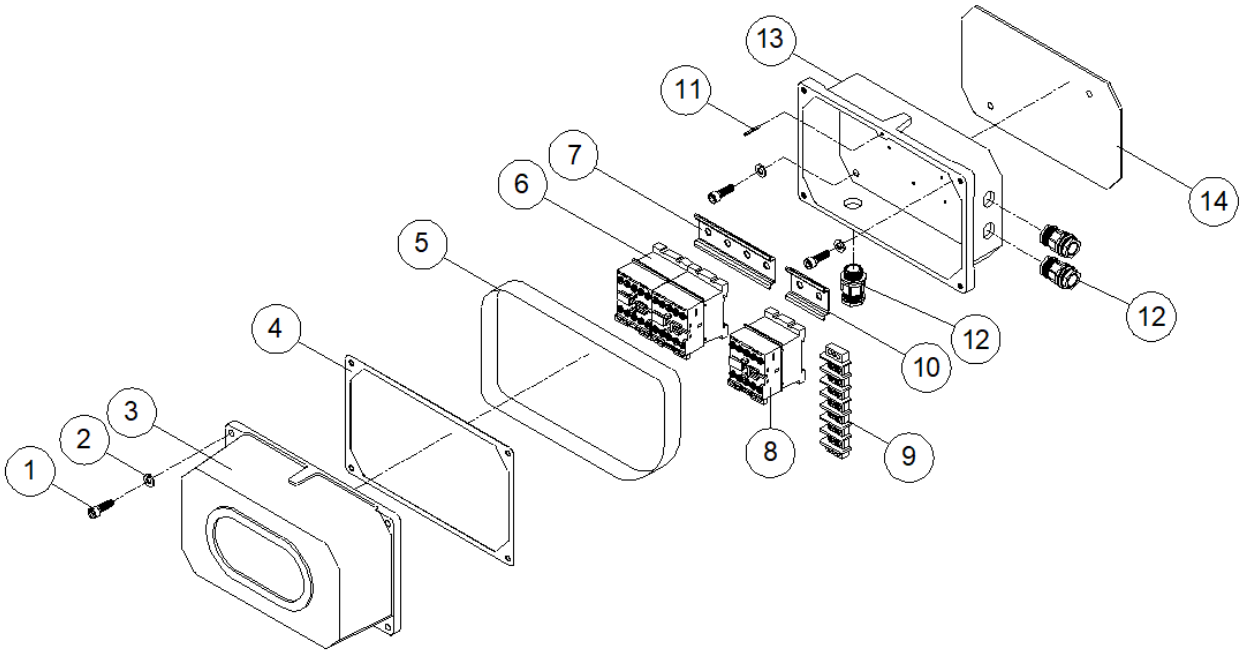
11.8.1 **MT300 and MT500 Trolley Motor – Exploded View**



11.8.2 **MT300 and MT500 Trolley Motor – Parts List**

Index No.	Part No.	Description	Size	Qty
1	MT300-B01	Brake End Cover		1
2	F001208	Phillips Pan Hd Mach Screw	M5×0.8×8L	4
3	TS-2361051	Spring Washer	M5	4
4	MT300-B04	Hex. Bolt	M5×0.8×160	4
5	MT300-B05	Brake Assembly	(SBV-YS-071A)	1
6	MT300-B06	Oil Seal	Ø17×Ø35×8t	1
7	BB-6203ZZ	Bearing	6203ZZ	1
8	F006045	C-Retaining Ring, Ext	S-17	1
9	MT300-B09	Motor Stator Assembly	3~230V60Hz0.6/0.15kw	1
	MT300-B09M	Motor Stator Assembly	3~460V60Hz0.6/0.15kw	1
10	MT300-B10	Motor Rotor	Ø64×80×228	1
11	BB-6204ZZ	Bearing	6204ZZ	1
12	MT300-B12	Oil Seal	Ø35×Ø20×8t	1
13	MT300-B13	Flange		1
14	MT300-B14	Spring Pin	Ø5×16L	2
15	MT300-B15	Gearbox Gasket		1
16	F006050	C-Retaining Ring, Ext	S-25	1
17	MT300-B17	4th Gear	M1.75x47T	1
18	BB-6205ZZ	Bearing	6205ZZ	2
19	MT300-B19	Oil Seal	Ø52×Ø32×11t	1
20	MT300-B20	Transmission Shaft	Ø32×147.5	1
21	BB-6203ZZ	Bearing	6203ZZ	2
22	MT300-B22	2nd Gear	M1.25×71T	1
23	3K00227	Key, Dbl Rd Hd	t6×6×15	1
24	MT300-B24	3rd Gear	M1.75×13T	1
25	MT300-B25	Gearbox A		1
26	TS-2361061	Spring Washer	M6	8
27	TS-1503041	Socket Hd Cap Screw	M6×1.0×16	8
28	F006052	C-Retaining Ring, Ext	S-30	2
29	KS050525	Key, Dbl Rd Hd	t5×5×25	1

11.9.1 **MT300 and MT500 Trolley Electricals – Exploded View**

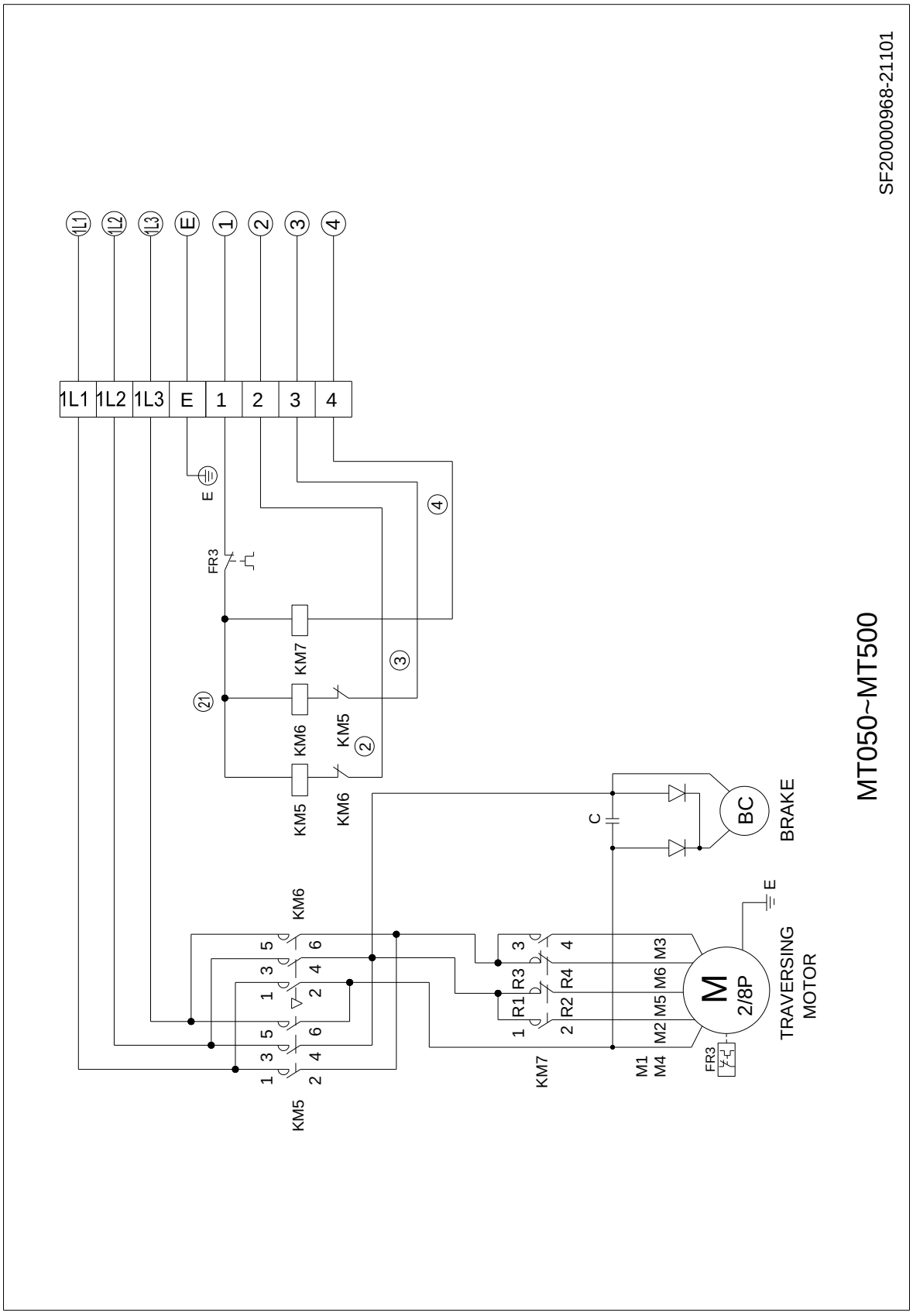


11.9.2 **MT300 and MT500 Trolley Electricals – Parts List**

Index No.	Part No.	Description	Size	Qty
1	TS-1482031	Hex. Recess Bolt	M6×1.0×16L	6
2	TS-2361061	Spring Washer	M6	6
3	MT050-C03	Electric Housing Cover		1
4	MT050-C04	Gasket #15		1
5	MT050-C05	Rubber Band		1
6	MT050-C06	Magnetic Contactor 110V	LC1-D09-F7	2
7	MT050-C07	Contactor Rail	2PC	1
8	MT050-C08	Magnetic Contactor 110V	LC1-D128-F7	1
9	MT050-C09	Terminal Block		1
10	MT050-C10	Contactor Rail	1PC	1
11	MT050-C11	Spring Pin	Ø3×14L	1
12	MT050-C12	Cable Gland	M20	3
13	MT050-C13	Electric Housing		1
14	MT050-C14	Gasket #16		1

12.0 **Electrical connections**

12.1 **MT Trolley wiring**



13.0 **Warranty and Service**

JET warrants every product it sells against manufacturers' defects. If one of our tools needs service or repair, please contact Technical Service by calling 1-800-274-6846, 8AM to 5PM CST, Monday through Friday.

Warranty Period
The general warranty lasts for the time period specified in the literature included with your product or on the official JET branded website.

- JET products carry a limited warranty which varies in duration based upon the product. (See chart below)
- Accessories carry a limited warranty of one year from the date of receipt.
- Consumable items are defined as expendable parts or accessories expected to become inoperable within a reasonable amount of use and are covered by a 90 day limited warranty against manufacturer's defects.

Who is Covered
This warranty covers only the initial purchaser of the product from the date of delivery.

What is Covered
This warranty covers any defects in workmanship or materials subject to the limitations stated below. This warranty does not cover failures due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, improper repair, alterations or lack of maintenance. JET woodworking machinery is designed to be used with Wood. Use of these machines in the processing of metal, plastics, or other materials outside recommended guidelines may void the warranty. The exceptions are acrylics and other natural items that are made specifically for wood turning.

Warranty Limitations
Woodworking products with a Five Year Warranty that are used for commercial or industrial purposes default to a Two Year Warranty. Please contact Technical Service at 1-800-274-6846 for further clarification.

How to Get Technical Support
Please contact Technical Service by calling 1-800-274-6846. **Please note that you will be asked to provide proof of initial purchase when calling.** If a product requires further inspection, the Technical Service representative will explain and assist with any additional action needed. JET has Authorized Service Centers located throughout the United States. For the name of an Authorized Service Center in your area call 1-800-274-6846 or use the Service Center Locator on the JET website.

More Information
JET is constantly adding new products. For complete, up-to-date product information, check with your local distributor or visit the JET website.

How State Law Applies
This warranty gives you specific legal rights, subject to applicable state law.

Limitations on This Warranty
JET LIMITS ALL IMPLIED WARRANTIES TO THE PERIOD OF THE LIMITED WARRANTY FOR EACH PRODUCT. EXCEPT AS STATED HEREIN, ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

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Product Listing with Warranty Period

90 Days – Parts; Consumable items
1 Year – Motors; Machine Accessories
2 Year – Metalworking Machinery; Electric Hoists, Electric Hoist Accessories; Woodworking Machinery used for industrial or commercial purposes; Air Tools
5 Year – Woodworking Machinery
Limited Lifetime – JET Parallel clamps; VOLT Series Electric Hoists; Manual Hoists; Manual Hoist Accessories; Shop Tools; Warehouse & Dock products; Hand Tools

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