BestReach Rigid Belt Drive-Out Conveyor System

Operator's Manual

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Part Number 99039
Effective June 2016
www.fmhconveyors.com

Dear Operator,

We at FMH Conveyors would like to thank you for selecting our BestReach® power conveyor system as the solution to your conveying needs.

Your BestReach® system is supported by a group of factory trained customer service representatives. They can be reached via our toll free number **1-800-327-9209**. Whether your needs require assistance from the factory or in the field, please do not hesitate to call. Our team is eager to help.

Thank you once again for purchasing our BestReach conveyor system. We look forward to fulfilling your future requirements.

Sincerely,
FMH Conveyors

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WARRANTY STATEMENT

Your FMH conveyor is protected by our premier warranty. FMH Conveyors will replace, free of charge, parts that are damaged during the course of normal operation due to material or workmanship defects. This warranty extends for a period of two (2) years on all mechanical components and one (1) year on all electrical components, as measured from the date you take possession of your conveyor.

This warranty does not cover damage due to accident, misuse, abuse, and negligence. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair/modification by anyone other than an authorized FMH Conveyors. service personnel.

For specific warranty information or assistance, please contact your FMH Conveyors sales representative at 1-800-327-9209.

SAFETY INFORMATION

- Avoid wearing excessively loose clothing or hanging jewelry when working with moving machinery.
- Keep long hair pulled up to prevent it from becoming caught in moving parts.
- Remove any obstructions from the path of the conveyor.
- Make sure others move away from the conveyor before moving the unit or starting the conveyor bed.
- Best Diversified Products, Inc. conveyors and their electrical systems must only be serviced by properly trained and qualified technicians.
- Never service the conveyor with power applied. Always disconnect power before servicing equipment.
- Never operate conveyor with any electrical enclosure open.
- Never operate conveyor with any guards removed.

SPECIFICATIONS

Overall Length w/13' Extension	64'-10 ½"
Minimum Discharge Height 13'	25"
Maximum Travel	59'-7 ½"
Overall Length w/8' Extension	60'-11"
Minimum Discharge Height 8'	27 ½"
Maximum Travel	55'-8"
Overall Length w/5' Extension	57'-9 ½"
Minimum Discharge Height 5'	29 ½"
Maximum Travel	52'-6 ½"
Minimum Bed Height	32 5/8"
Overall Width	35 3/8"
Belt Width	24"
Travel Speed	60 ft/min
Steering	7 degrees left & right
Tires	4.00 x 8 (16.25" O.D.)
Conveyor Bed Speed Standard	65 ft/min
Conveyor Bed Speed Optional	75-135 ft/min
230VAC 3 phase Std. Speed	
Full Load Current	11.5 Amp
Roller Full Load Amps	4.4 Amp
460VAC 3 phase Std. Speed	
Full Load Current	6 Amp
1 ½ H.P. Motor Full Load Amps	2.5 Amp
230VAC 3 phase Optional Speed	
Full Load Current	15.5 Amp
Roller Full Load Amps	8.6 Amp
460VAC 3 phase Optional Speed	
Full Load Current	8 Amp
Roller Full Load Amps	4.3 Amp

INSTALLATION

Installation should only be performed by qualified personnel, and must be completed in accordance with all applicable codes and regulations.

1.) Locate and mark the center of the spur. Measure 5" off centerline on each side and chalk 2 lines from the rear of the dock leveler back approximately 50'.
2.) Mark location for the rear of floor track as shown on supplied application specific drawing (if you do not have this drawing contact factory.)
3.) Locate and position the individual pieces of floor track as shown on drawing A.
4.) Assemble the rear sections of floor track as shown in drawing B.
5.) Position and anchor floor track starting with the rear and aligning the outside edge with the chalk lines.
6.) Pull 2 lengths of SO cable (Length specified in electrical assembly, Drawing C) thru flexible wire carrier.
7.) Assemble flexible wire carrier to front wire cover.
8.) Feed SO cable under rear wire cover exposing approximately 10" at the rear of the floor track.
9.) Install 2 cord grips in 7/8 holes of modified 8x6x4 junction box.
10.) Feed Approximately 10" of the SO cables thru the cord grips and install junction box on the rear of the floor track.
11.) Place center wire cover in the track and pull slack cable thru the opposite end of the flexible wire carrier.
12.) Lay flexible wire carrier flat in the floor track.
13.) If the conveyor is going to be installed from the dock end of the floor track the stop bar must be removed from the conveyor. If the conveyor is to be installed from the rear of the floor track the stop bar and the UHMW guide roller must be removed from the conveyor.
14.) Roll the conveyor into position on guide track and re-install stop bar and guide roller.
15.) Connect Flexible wire carrier to conveyor.
16.) Route and secure 14/4 SO cable into main electrical enclosure box..
17.) Route and secure 16/7 SO cable into 12" x 12" box.
18.) Terminate wires as shown on Diagrams A and B.
19.) Supply line voltage shown on nameplate to 14/4 SO cable in 8x6x4 junction box.
20.) Connect applicable interlock wires to 16/7 SO cable in 8x6x4 junction box.
21.) Remove chain guard and install chain.

INSTALLATION (cont)

BELT INSTALATION AND TRACKING:

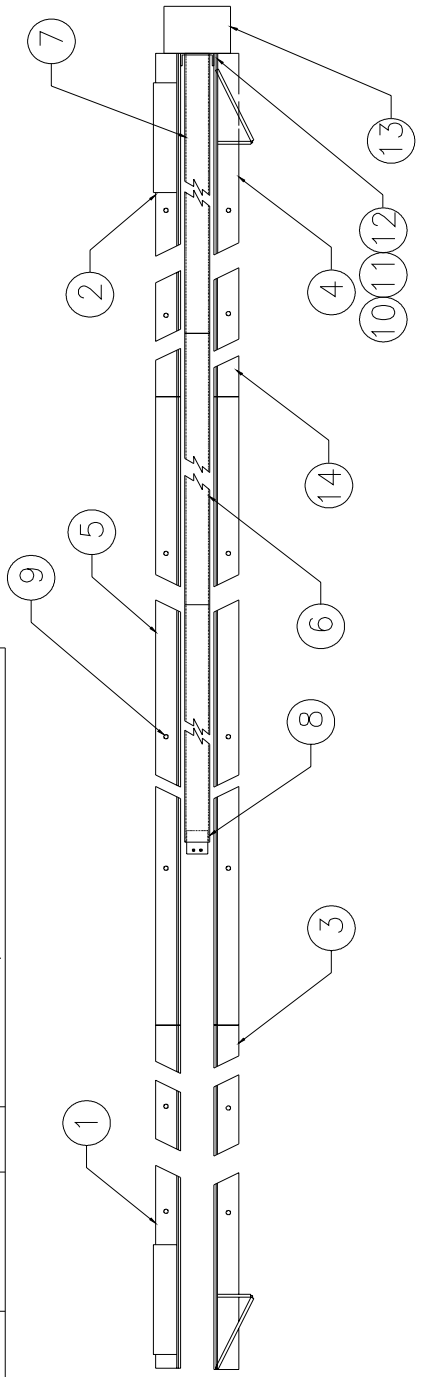
Unroll the belt, PVC coating side up, around the tail pulley and over the idler rollers. Run belt over the snub roller and around the drive roll. Align the seam near the center of the conveyor frame. Pull the belt together to engage the lacing and install the pin. There are two permanent marks in the center of the belt width approximately 20 feet back from the lacing and 10 feet apart. Find these marks and take an exact measurement between them. Add .375" (3/8") to the measurement. Example (measured 119 9/16" + 3/8" = 119 15/16). For proper tension, adjust the tail pulley so the distance between the two marks is equal to the sum of the measured dimension and 3/8". To insure the tail pulley is square, be sure both tail pulley blocks are equal distance from the rear of the conveyor frame. After tracking the belt, check the dimension between the marks to make sure proper tension is still in the belt. If the dimension has changed, adjust accordingly and recheck for proper tracking.

With the belt installed, begin the tracking procedure. The drive roll should be parallel to the snub roller. The snub roller should be locked into place. All idler rollers are square to the frame. Start the belt. Watch to see which side the belt wants to run to and also how quickly it does so. Shut off the conveyor. Begin belt tracking by adjusting the first idler from the tail. Loosen the bolts on the idler bracket and angle the roller to correct the belt travel. The roller will steer the belt toward the uphill side of the roller (Uphill refers to the belt travel direction). If further correction is necessary, proceed to adjust the first idler from the front, then the two in the center of the conveyor, in that order. If adjusting the idlers cannot solve the tracking problem, the tail pulley may have to be adjusted slightly.

Adjusting the idler rollers will solve most all of the belt tracking problems. The belt should run straight and on the center of the slider bed. Practice and experience will speed up the belt tracking process.

Floor Track Assembly, 13 Ft. Extension

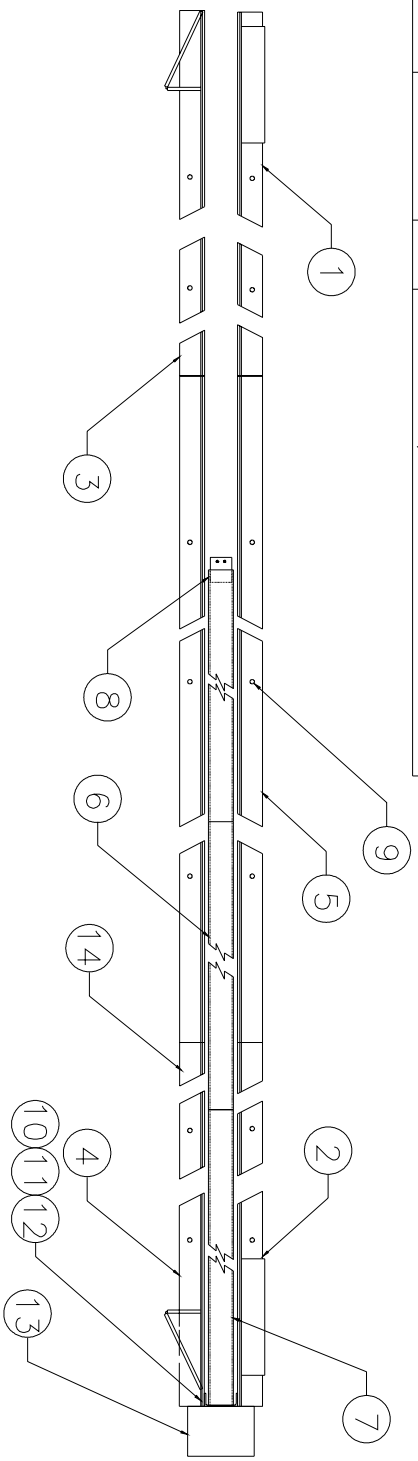
Diagram A



NO.	PART NUMBER	REQ'D	DESCRIPTION
1	750023	1	WT. FRONT RIGHT, FLOOR TRACK
2	750024	1	WT. REAR RIGHT, FLOOR TRACK
3	750020	1	WT. FRONT LEFT, FLOOR TRACK
4	750022	1	WT. REAR LEFT, FLOOR TRACK
5	350166	12	FLOOR TRACK, 86" SECTION
6	350204	2	CHANNEL, WIRE CABLES
7	750025	1	WT. REAR CHANNEL, WIRE CABLES
8	750026	1	WT. FRONT CHANNEL, WIRE CABLES
9	10565	40	BOLT ANCHOR 3/8-16 X 3 3/4"
10	12020	4	FLAT WASHER 3/8"
11	11140	4	LOCKNUT 3/8-16 NYLON
12	10042	4	SCREW, HHC, 3/8-16 X 1"
13	400183	1	ELECTRICAL ASSEMBLY, FLOOR TRACK, 13' EXT
14	300336	2	FLOOR TRACK, 51" SECTION

Floor Track Assembly, 8 Ft. Extension

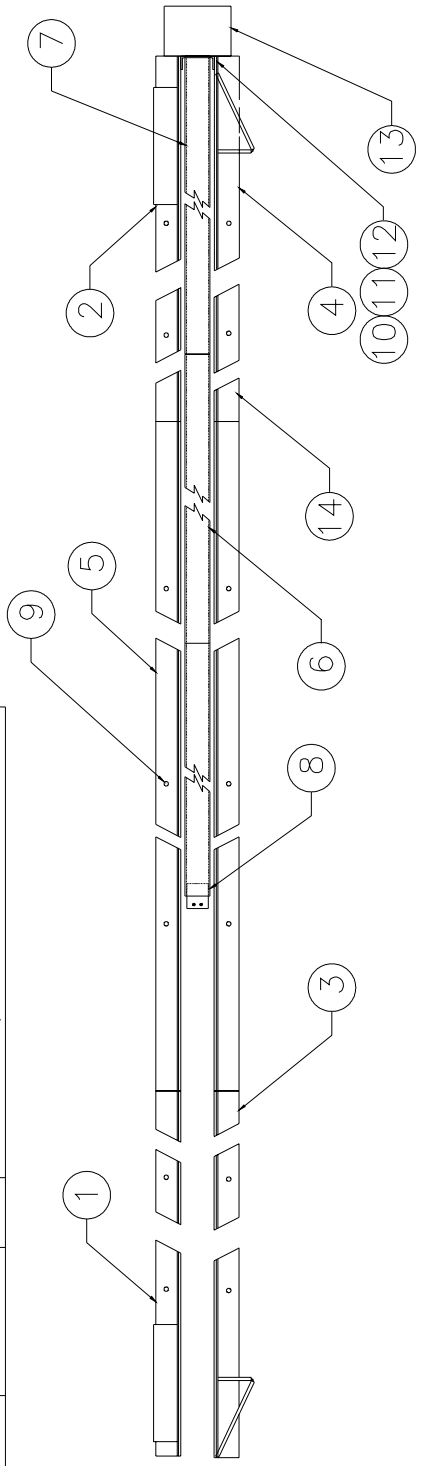
Diagram A



NO.	PART NUMBER	REQ'D	DESCRIPTION
1	750023	1	WT. FRONT RIGHT, FLOOR TRACK
2	750024	1	WT. REAR RIGHT, FLOOR TRACK
3	750020	1	WT. FRONT LEFT, FLOOR TRACK
4	750022	1	WT. REAR LEFT, FLOOR TRACK
5	350166	12	FLOOR TRACK, 86" SECTION
6	350204	2	CHANNEL, WIRE CABLES
7	750025	1	WT. REAR CHANNEL, WIRE CABLES
8	750026	1	WT. FRONT CHANNEL, WIRE CABLES
9	10565	40	BOLT ANCHOR 3/8-16 X 3 3/4"
10	12020	4	FLAT WASHER 3/8"
11	11140	4	LOCKNUT 3/8-16 NYLON
12	10042	4	SCREW, HHC, 3/8-16 X 1"
13	400183	1	ELECT ASSEMBLY, FLOOR TRACK, 13' EXT
14	300336	2	FLOOR TRACK, 51" SECTION

Floor Track Assembly, 5 ft Extension

Diagram A

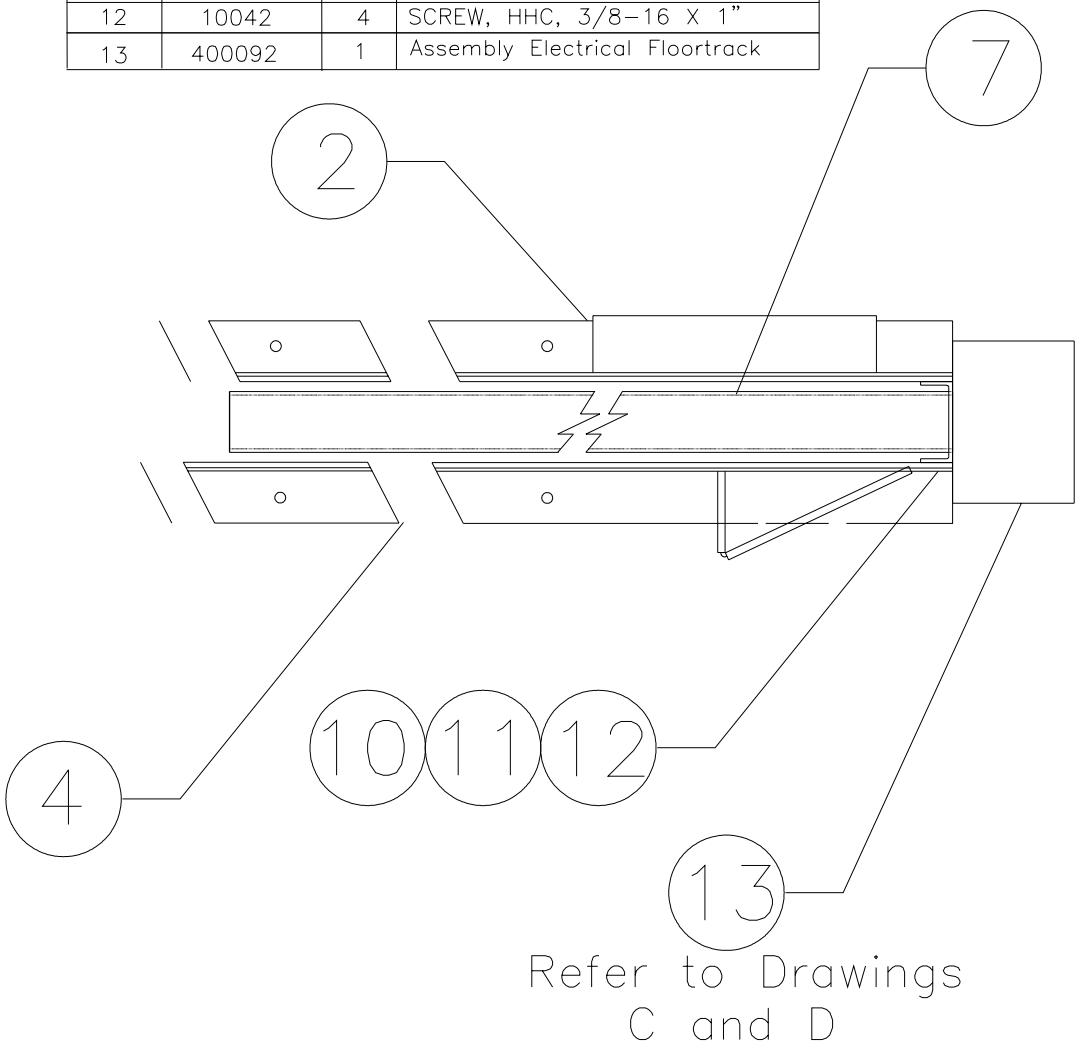


NO.	PART NUMBER	REQ'D	DESCRIPTION
1	750023	1	WT. FRONT RIGHT, FLOOR TRACK
2	750024	1	WT. REAR RIGHT, FLOOR TRACK
3	750020	1	WT. FRONT LEFT, FLOOR TRACK
4	750022	1	WT. REAR LEFT, FLOOR TRACK
5	350166	10	FLOOR TRACK, 86" SECTION
6	350204	2	CHANNEL, WIRE CABLES
7	750025	1	WT. REAR CHANNEL, WIRE CABLES
8	750026	1	WT. FRONT CHANNEL, WIRE CABLES
9	10565	36	BOLT ANCHOR 3/8-16 X 3 3/4"
10	12020	4	FLAT WASHER 3/8"
11	11140	4	LOCKNUT 3/8-16 NYLON
12	10042	4	SCREW, HHC, 3/8-16 X 1"
13	400185	1	ELECT ASSEMBLY, FLOOR TRACK, 5' EXT
14	300336	2	FLOOR TRACK, 51" SECTION

Floor Track Assembly, Rear

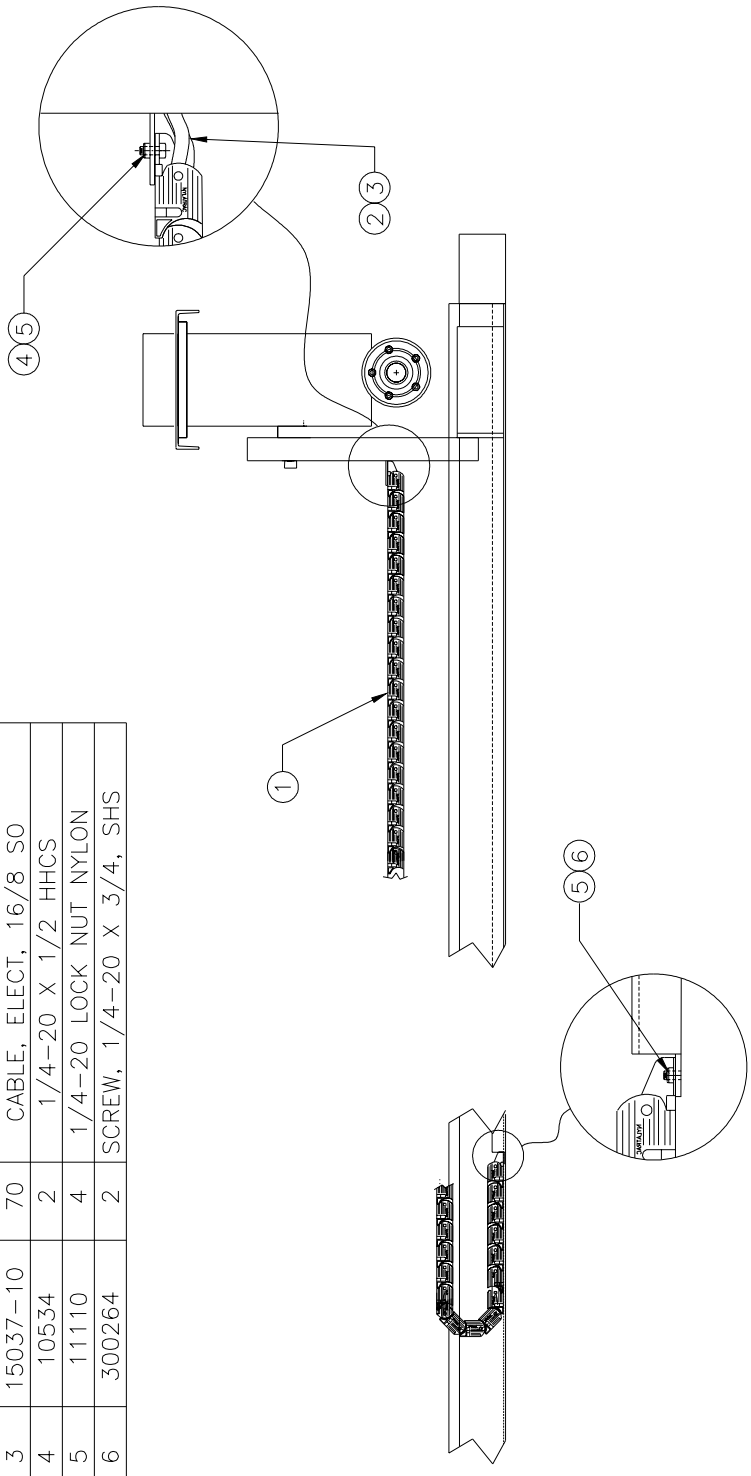
Drawing B

NO.	PART NUMBER	REQ'D	DESCRIPTION
2	750024	1	WT. REAR RIGHT, FLOOR TRACK
4	750022	1	WT. REAR LEFT, FLOOR TRACK
7	750025	1	WT. REAR CHANNEL, WIRE CABLES
10	12020	4	FLAT WASHER 3/8"
11	11140	4	LOCKNUT 3/8-16 NYLON
12	10042	4	SCREW, HHC, 3/8-16 X 1"
13	400092	1	Assembly Electrical Floortrack



Electrical Assembly, Floor Track, 13 Ft. Extension

Drawing C

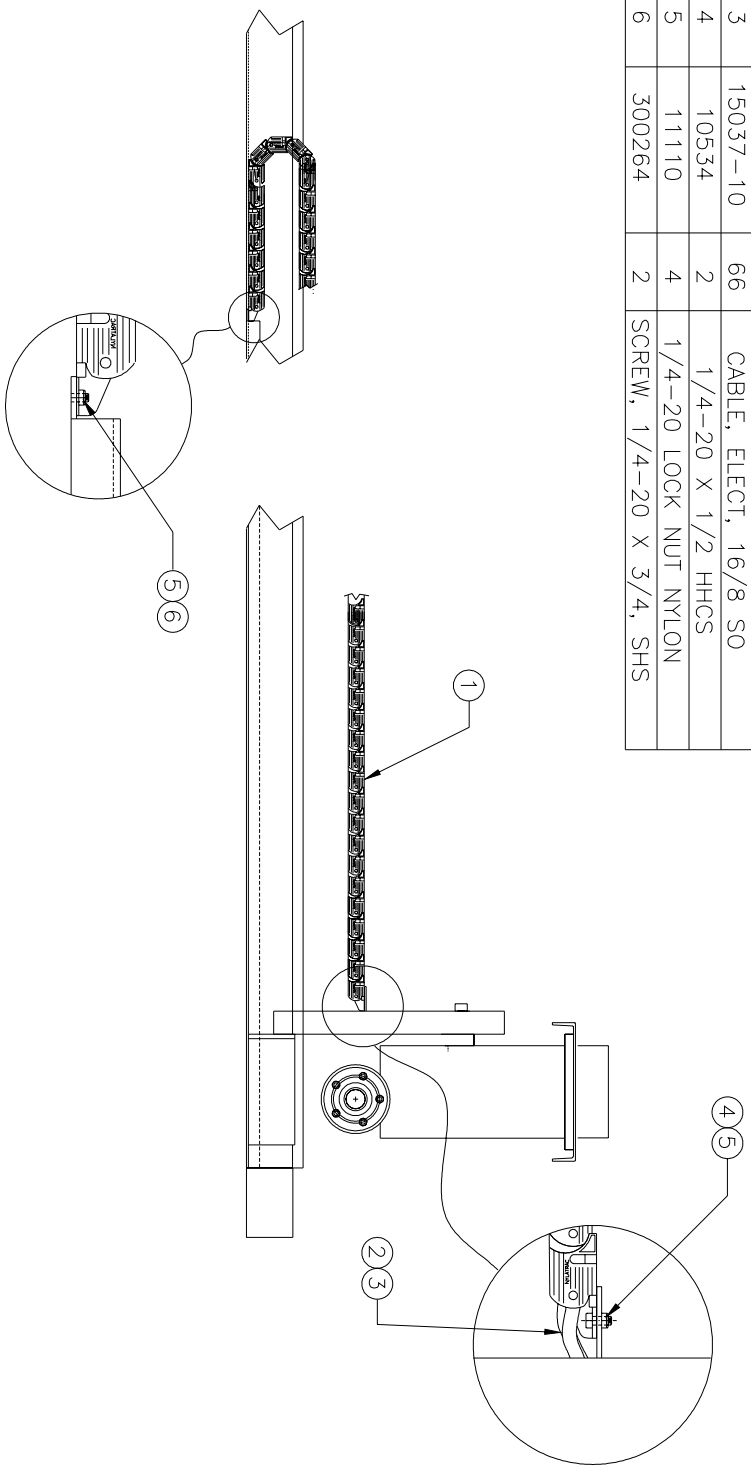


NO.	PART NUMBER	REQ'D	DESCRIPTION
1	300505	1	CABLE CARRIER, 13' EXT
2	15037-13	70	CABLE, ELECT, 14/4 SO
3	15037-10	70	CABLE, ELECT, 16/8 SO
4	10534	2	1/4-20 X 1/2 HHCS
5	11110	4	1/4-20 LOCK NUT NYLON
6	300264	2	SCREW, 1/4-20 X 3/4, SHS

Electrical Assembly, Floor Track, 8 ft. Extension

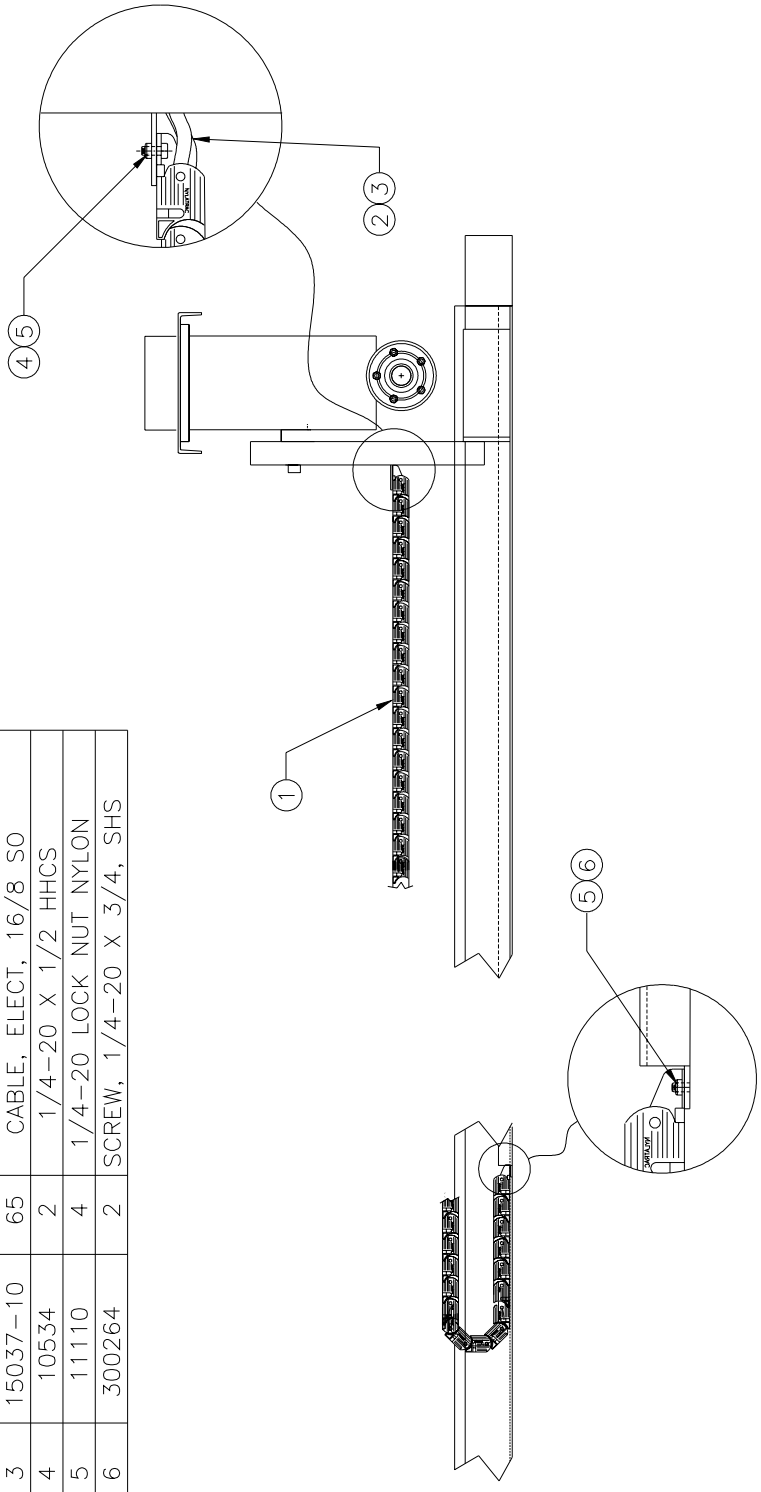
Drawing C

NO.	PART NUMBER	REQ'D	DESCRIPTION
1	300506	1	CABLE CARRIER, 8' EXT
2	15037-13	66	CABLE, ELECT, 14/4 SO
3	15037-10	66	CABLE, ELECT, 16/8 SO
4	10534	2	1/4-20 X 1/2 HHCS
5	11110	4	1/4-20 LOCK NUT NYLON
6	300264	2	SCREW, 1/4-20 X 3/4, SHS



Electrical Assembly, Floor Track, 5 Ft Extension

Drawing C



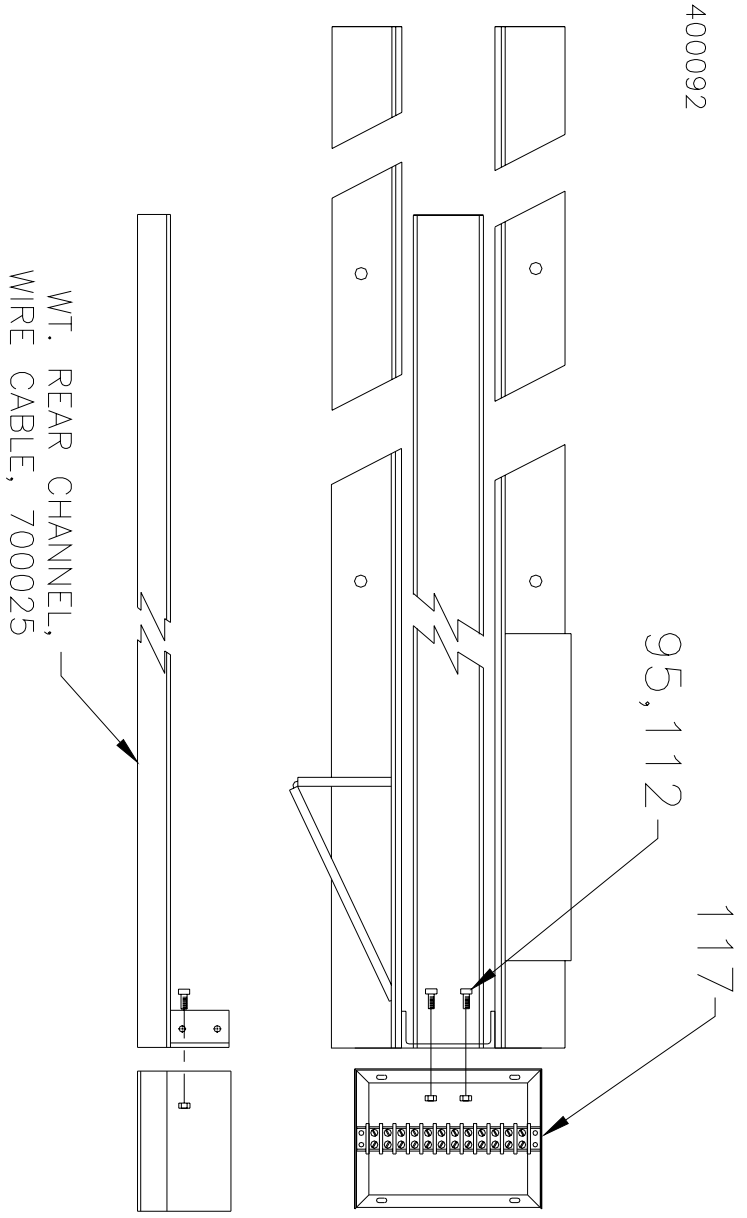
NO.	PART NUMBER	REQ'D	DESCRIPTION
1	300507	1	CABLE CARRIER, 5' EXT
2	15037-13	65	CABLE, ELECT, 14/4 SO
3	15037-10	65	CABLE, ELECT, 16/8 SO
4	10534	2	1/4-20 X 1/2 HHCS
5	11110	4	1/4-20 LOCK NUT NYLON
6	300264	2	SCREW, 1/4-20 X 3/4, SHS

Enclosure Mount, Floor Track, Rear

Drawing D

NO.	REQ'D	PART #	DESCRIPTION
95	2	11110	LOCKNUT, 1/4-20 NYLON
112	2	300142	BOLT, HHC 1/4-20 1/2"
117	1	400007	8 X 6 X 4 ENCLOSURE, RWKD

PART OF 800007
DETAIL OF ASSY. 400092



OPERATING INSTRUCTIONS

An emergency stop circuit controls electrical power to all parts of the conveyor. When any one emergency stop switch is activated, power is removed from all motors and actuators stopping all movement of the conveyor frame and bed. All electrical power is also removed from the motors and actuators when the DOOR DISCONNECT HANDLE is in the OFF or OPEN positions.

A. With interlocking door disconnect in the ON position and all Emergency Stop buttons out and optional Cable Pull switches in the run position, the operator pushes either RESET button. The MASTER CONTACTOR is energized and the machine is ready to respond to the operator's inputs.

B. Moving the joystick in the DOWN direction starts the traversing motor in the forward direction after the beeper is sounded for approximately 1.5 seconds , moving the unit toward the dock door. Releasing the joystick will return it to its centered position, stopping the motor. Moving the joystick UP starts the traversing motor in the opposite direction after the beeper is sounded.

C. The LEFT and RIGHT positions of the joystick cause the steering actuator to steer the unit. The unit will steer in the same direction as the joystick movement when the unit is moving forward.

D. The conveyor bed is controlled by the OFF ON pushbutton. Pressing it once will start the bed after the beeper is sounded continuously for approximately 1 second. When the bed is running, pressing this pushbutton turns off the bed.

E. At any time either Emergency Stop switch may be pushed to de-energize the MASTER contactor. This will remove power from all motors and actuators. To restart the machine, the Emergency Stop that was activated must be reset and either RESET pushbutton momentarily depressed. Any motor that was running prior to the Emergency Stop will have to be restarted through the Operator's Control Panel.

F. A feeder control switch provides dry contacts for a customer connection to control the feeder for the spur or any other function the customer requires.

PROGRAMMING PACKAGE STOP PHOTOEYES:

- Switch on 12" x 12" enclosure on the extension should be in the down position for normal operation.
- To program, flip switch to up position. Cover photoeye for the desired shut off delay time required on the conveyor belt. There should be a continuous beep for the time the photoeye is covered during programming.

OPERATING INSTRUCTIONS (CONT)

PROGRAMMING PACKAGE STOP PHOTOEYES (continued)

- Return switch to the down position for operation.
- To return to default settings of 3 seconds delay, flip switch up and down three times in 2 sec. The default settings will be reinstated and the switch is in down position for operation.

INDEXING OPTION AND PHOTOEYE PROGRAMMING:

- This conveyor can be equipped with an electronic package indexing option.
- The indexing option is switched on and off using a selector switch on the operator control panel. In the on position, the conveyor is in normal operating mode. When the switch is off, the conveyor will index packages a programmable distance after they pass through the indexing photoeye located on the transition.
- Programming this distance follows the same procedure as the package stop photoeye except you will cover the indexing photoeye for the desired conveyor belt run time after a package is detected on the transition.

MAINTENANCE SCHEDULE

The BESTREACH Conveyor is virtually maintenance free. However, we do recommend the following:

Keep the conveyor clean and free of debris, dirt and grease accumulation.

Inspect belt for wear and proper tracking.

Make sure photoeyes are clean and unobstructed.

Inspect all bearings for leaking seals or other early signs of failure. (Conveyor belt rollers and Rear axle pillow blocks)

Check chain tension on the rear axle drive.

Visually inspect floortrack and flexible cable carrier and cables to ensure proper working order.

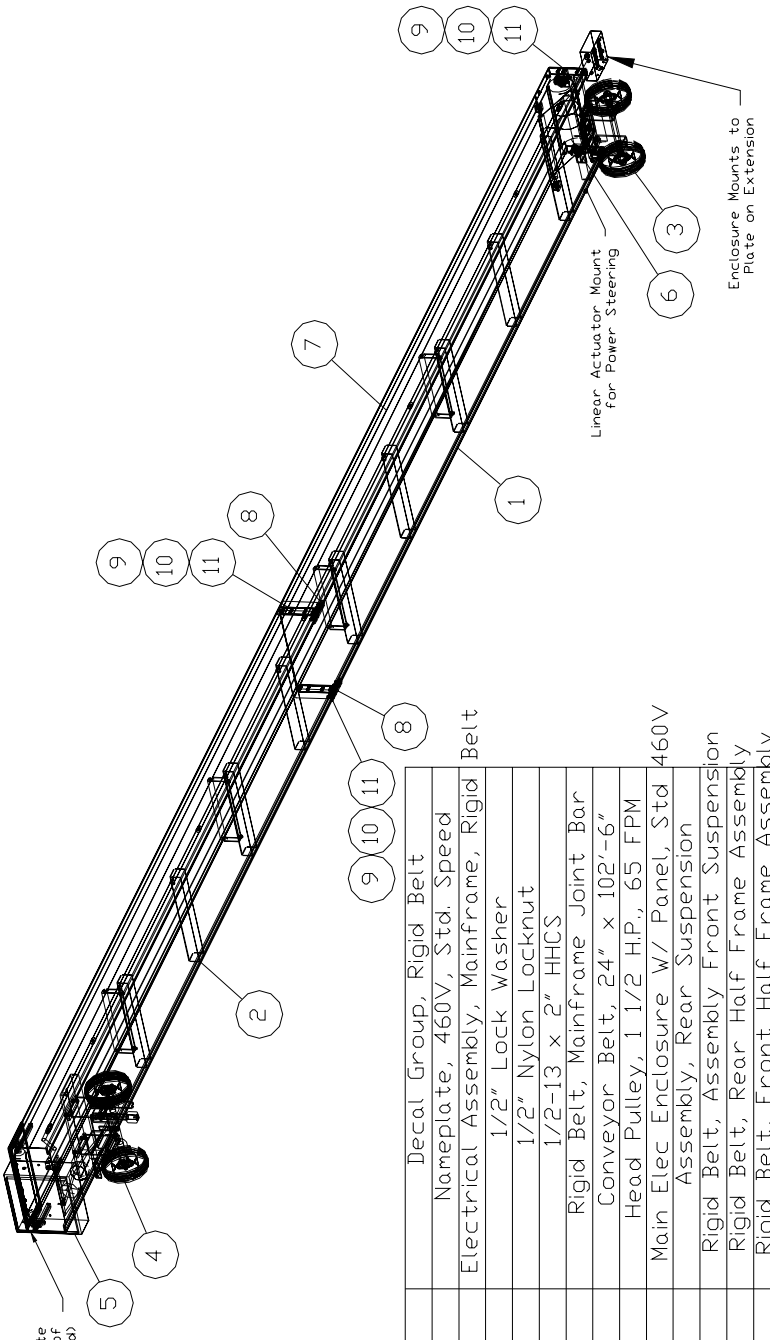
Test all EMERGENCY STOP switches to verify proper operation.

Oil in the Motorized Head Pulley is to be monitored and changed per owner's manual specification.

All of the above maintenance inspections should be conducted daily.

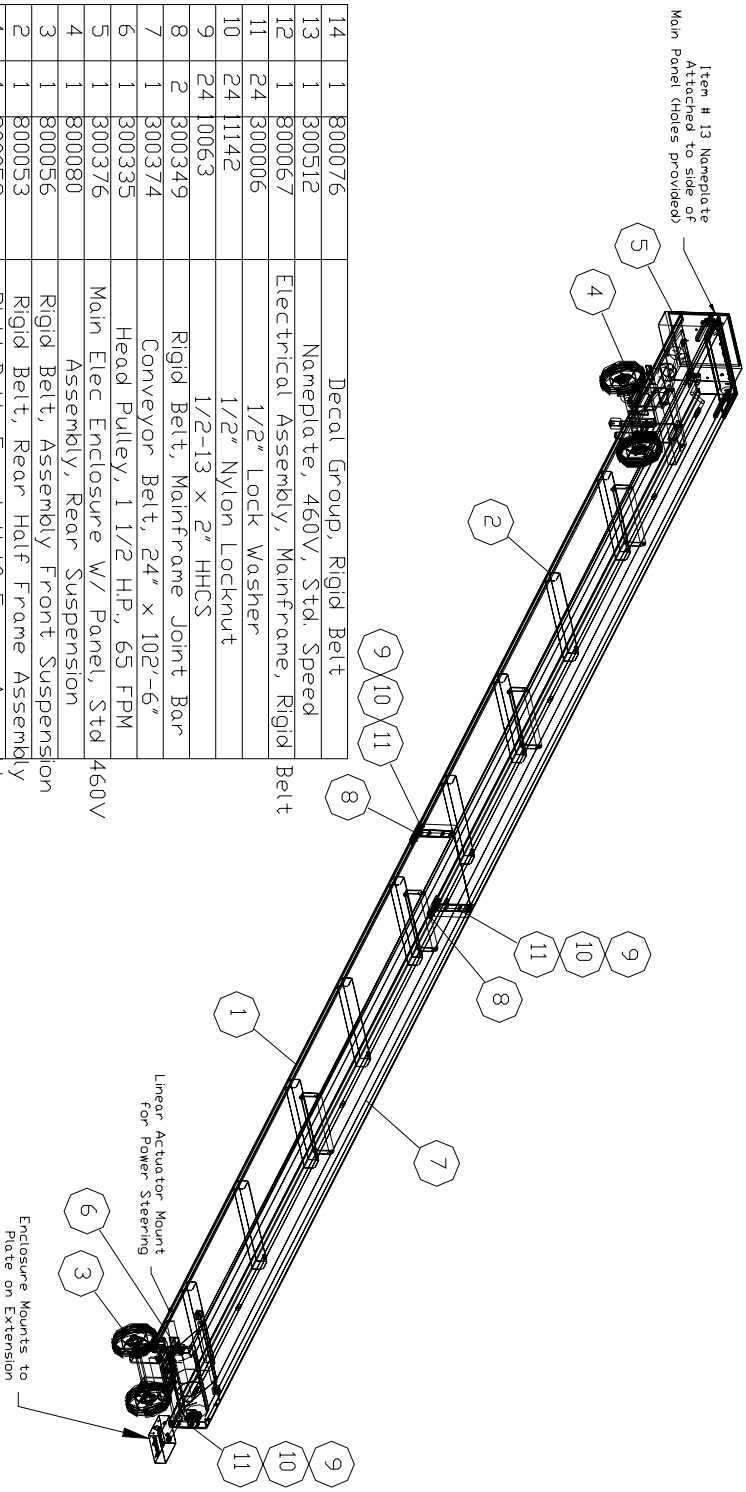
Assembly Diagrams of Components and Parts List of BestReach™ Rigid Belt Conveyor.

Rigid Belt, Bast Unit, 460V. Std Speed



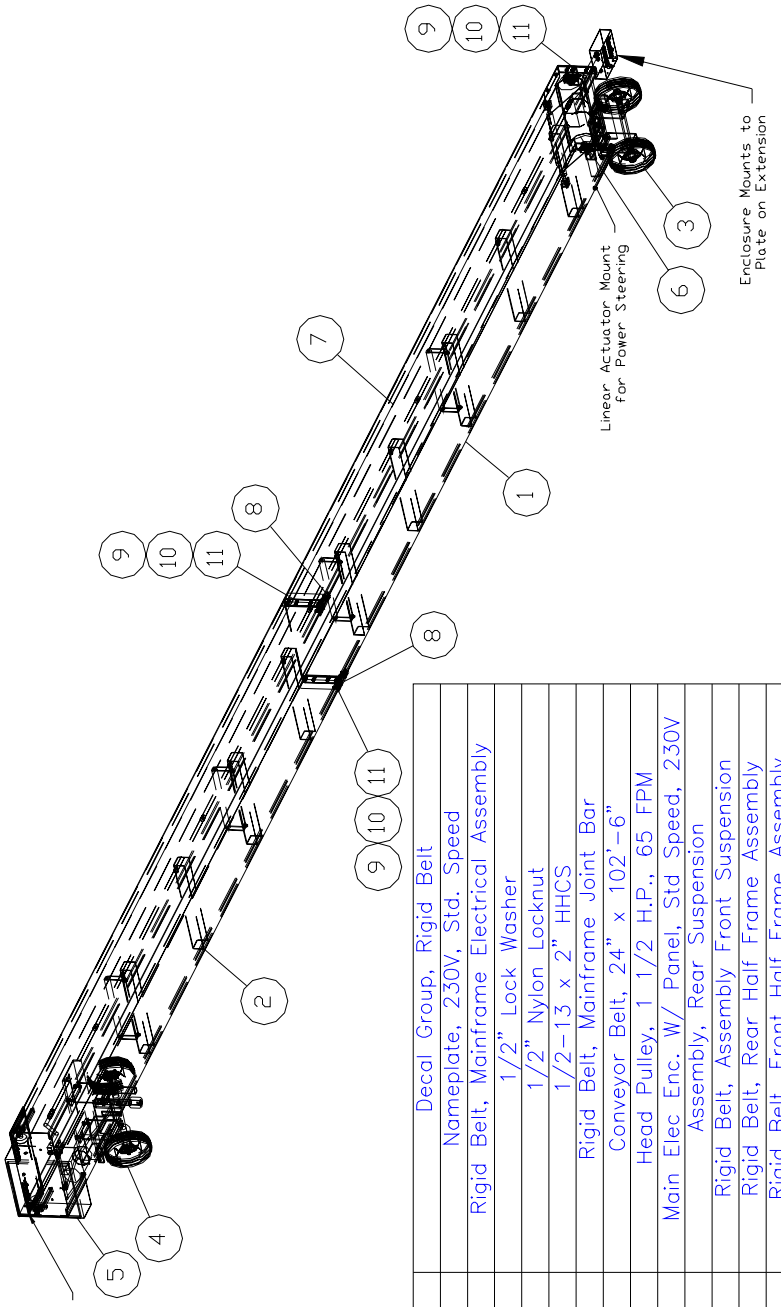
Item	Qty	Name	Description
			800069
14	1	800076	Decal Group, Rigid Belt
13	1	300512	Nameplate, 460V, Std. Speed
12	1	800067	Electrical Assembly, Mainframe, Rigid Belt
11	24	300006	1/2" Lock Washer
10	24	11142	1/2" Nylon Locknut
9	24	10063	1/2-13 x 2" HHCS
8	2	300349	Rigid Belt, Mainframe Joint Bar
7	1	300374	Conveyor Belt, 24" x 102'-6"
6	1	300335	Head Pulley, 1 1/2 H.P., 65 FPM
5	1	300376	Main Elec Enclosure W/ Panel, Std 460V
4	1	800080	Assembly, Rear Suspension
3	1	800056	Rigid Belt, Assembly Front Suspension
2	1	800053	Rigid Belt, Rear Half Frame Assembly
1	1	800052	Rigid Belt, Front Half Frame Assembly

Rigid Belt, Base Unit, 460V, Speed Option



800069		
Item	Qty	Name	Description
14	1	800076	Decal Group, Rigid Belt
13	1	300512	Nameplate, 460V, Std. Speed
12	1	800067	Electrical Assembly, Mainframe, Rigid Belt
11	24	300006	1/2" Lock Washer
10	24	1142	1/2" Nylon Locknut
9	24	10063	1/2-13 x 2" HHCS
8	2	300349	Rigid Belt, Mainframe Joint Bar
7	1	300374	Conveyor Belt, 24" x 102'-6"
6	1	300335	Head Pulley, 1 1/2 H.P., 65 FPM
5	1	300376	Main Elec Enclosure W/ Panel, Std 460V
4	1	800080	Assembly, Rear Suspension
3	1	800056	Rigid Belt, Assembly Front Suspension
2	1	800053	Rigid Belt, Rear Half Frame Assembly
1	1	800052	Rigid Belt, Front Half Frame Assembly

Rigid Belt, Bast Unit, 230V, Std Speed

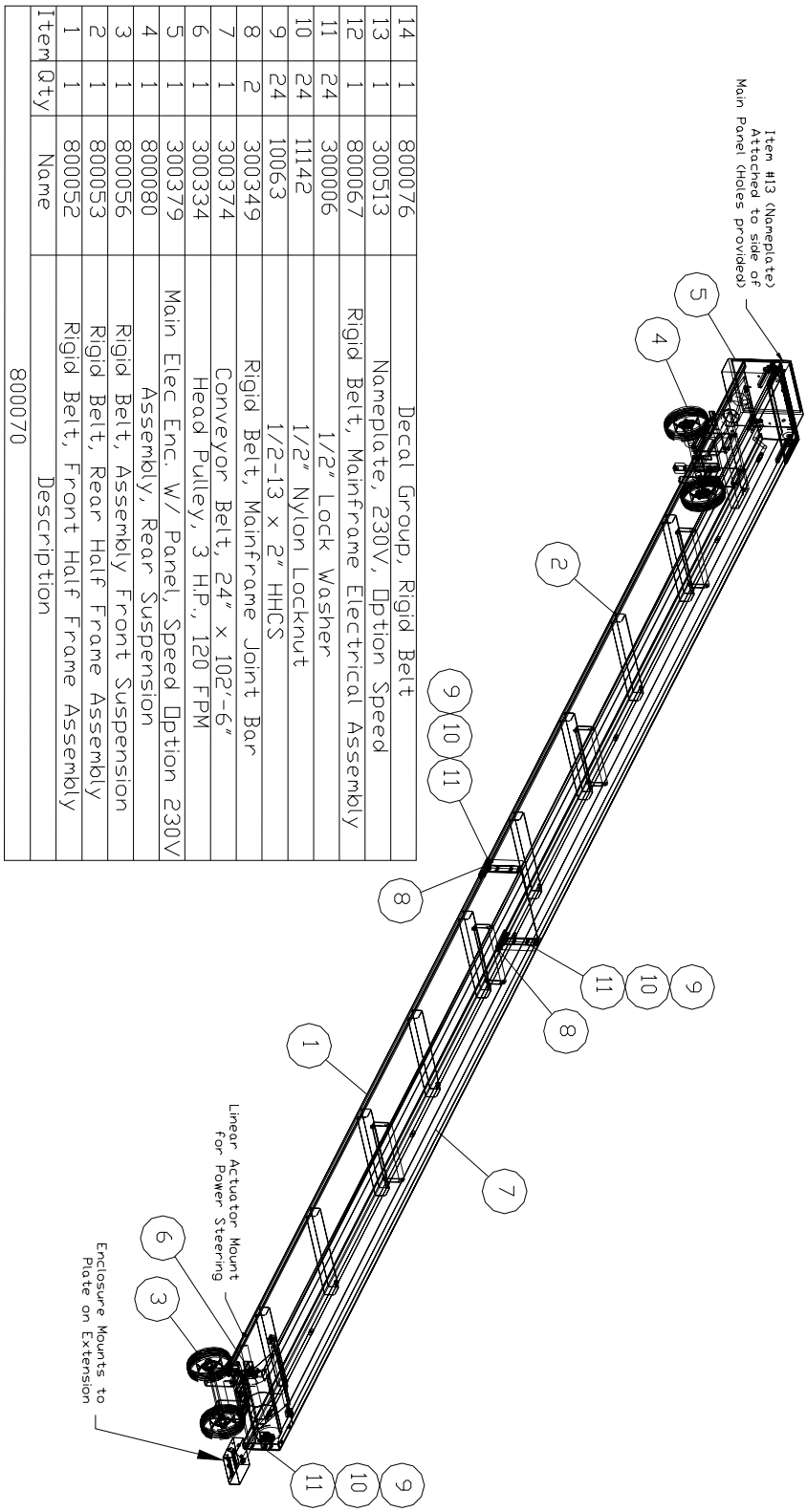


Item	Qty	Name	Description
14	1	800076	Decal Group, Rigid Belt
13	1	300511	Nameplate, 230V, Std. Speed
12	1	800067	Rigid Belt, Mainframe Electrical Assembly
11	24	300006	1/2" Lock Washer
10	24	11142	1/2" Nylon Locknut
9	24	10063	1/2-13 x 2" HHCS
8	2	300349	Rigid Belt, Mainframe Joint Bar
7	1	300374	Conveyor Belt, 24" x 102'-6"
6	1	300335	Head Pulley, 1 1/2 H.P., 65 FPM
5	1	300377	Main Elec Enc. W/ Panel, Std Speed, 230V
4	1	800080	Assembly, Rear Suspension
3	1	800056	Rigid Belt, Assembly Front Suspension
2	1	800053	Rigid Belt, Rear Half Frame Assembly
1	1	800052	Rigid Belt, Front Half Frame Assembly

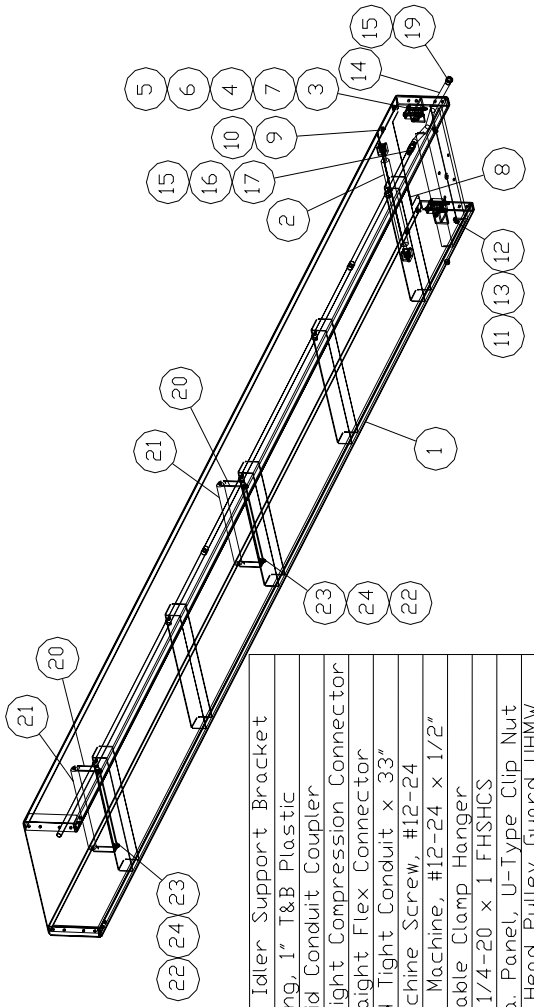
800070

Rigid Belt, Base Unit, 230V, Speed Option

Item	Qty	Name	Description
			800070
14	1	800076	Decal Group, Rigid Belt
13	1	300513	Nameplate, 230V, Option Speed
12	1	800067	Rigid Belt, Mainframe Electrical Assembly
11	24	300006	1/2" Lock Washer
10	24	11142	1/2" Nylon Locknut
9	24	10063	1/2-13 x 2" HHCS
8	2	300349	Rigid Belt, Mainframe Joint Bar
7	1	300374	Conveyor Belt, 24" x 102'-6"
6	1	300334	Head Pulley, 3 H.P., 120 FPM
5	1	300379	Main Elec Enc. W/ Panel, Speed Option 230V
4	1	800080	Assembly, Rear Suspension
3	1	800056	Rigid Belt, Assembly Front Suspension
2	1	800053	Rigid Belt, Rear Half Frame Assembly
1	1	800052	Rigid Belt, Front Half Frame Assembly



Rigid Belt, Front Half, Frame Assembly



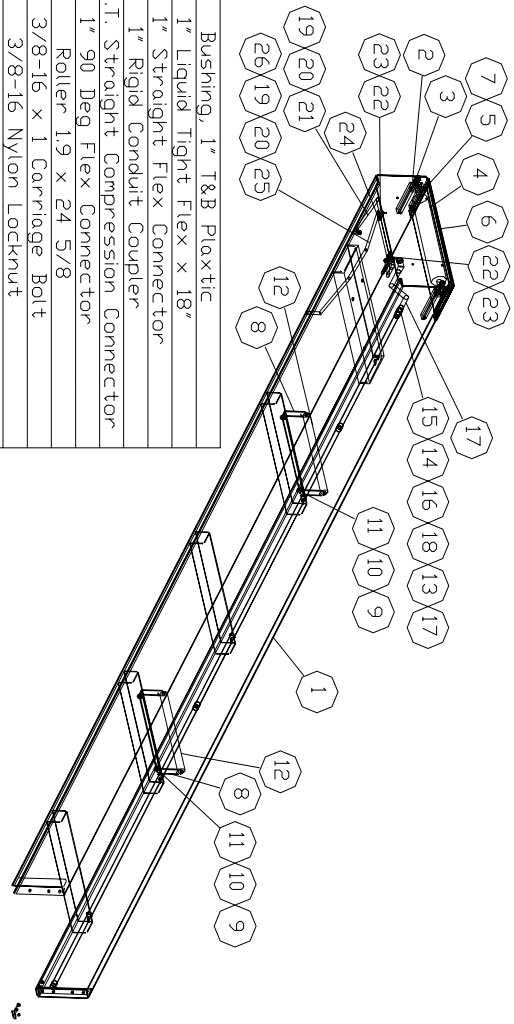
Item	Qty	Name	Description
1	1	300332	Mainframe, Rigid Belt, Front Weldment
2	1	300339	Rigid Belt, Snub Roller
3	2	300333	Head Pulley Mount Block
4	4	300398	Bolt, HHCS, 1/2 -13 x 5
5	4	300006	Lock Washer, 1/2"
6	4	11142	Locknut, 1/2 - 13 Nylon
7	2	300007	Bolt, HHCS, 1/2 -13 x 1 1/2"
8	1	300362	Rigid Belt, Head Pulley Guard UHMW
9	4	300371	1/4-20, 7 ga. Panel, U-Type Clip Nut
10	4	300373	Screw, 1/4-20 x 1 FHSHCS
11	2	15097	1/2" Cable Clamp Hanger
12	2	10533	Screw, PHS, Machine, #12-24 x 1/2"
13	2	11278	Nut, Machine Screw, #12-24
14	1	400173	1" Liquid Tight Conduit x 33"
15	2	300367	1" Straight Flex Connector
16	1	300365	1" E.M.T. Straight Compression Connector
17	1	300366	1" Rigid Conduit Coupler
19	1	300297	Bushing, 1" T&B Plastic
20	2	300503	Return Idler Support Bracket

800052

Item	Qty	Name	Description
21	2	300070	Roller 1.9 x 24 5/8
22	4	12020	3/8 Flat Washer
23	4	11140	3/8-16 Nylon Locknut
24	4	10676	3/8-16 x 1 Carriage Bolt
25	1	800050	Rigid Belt, 12x12 Enclosure, Sub Assembly

800052

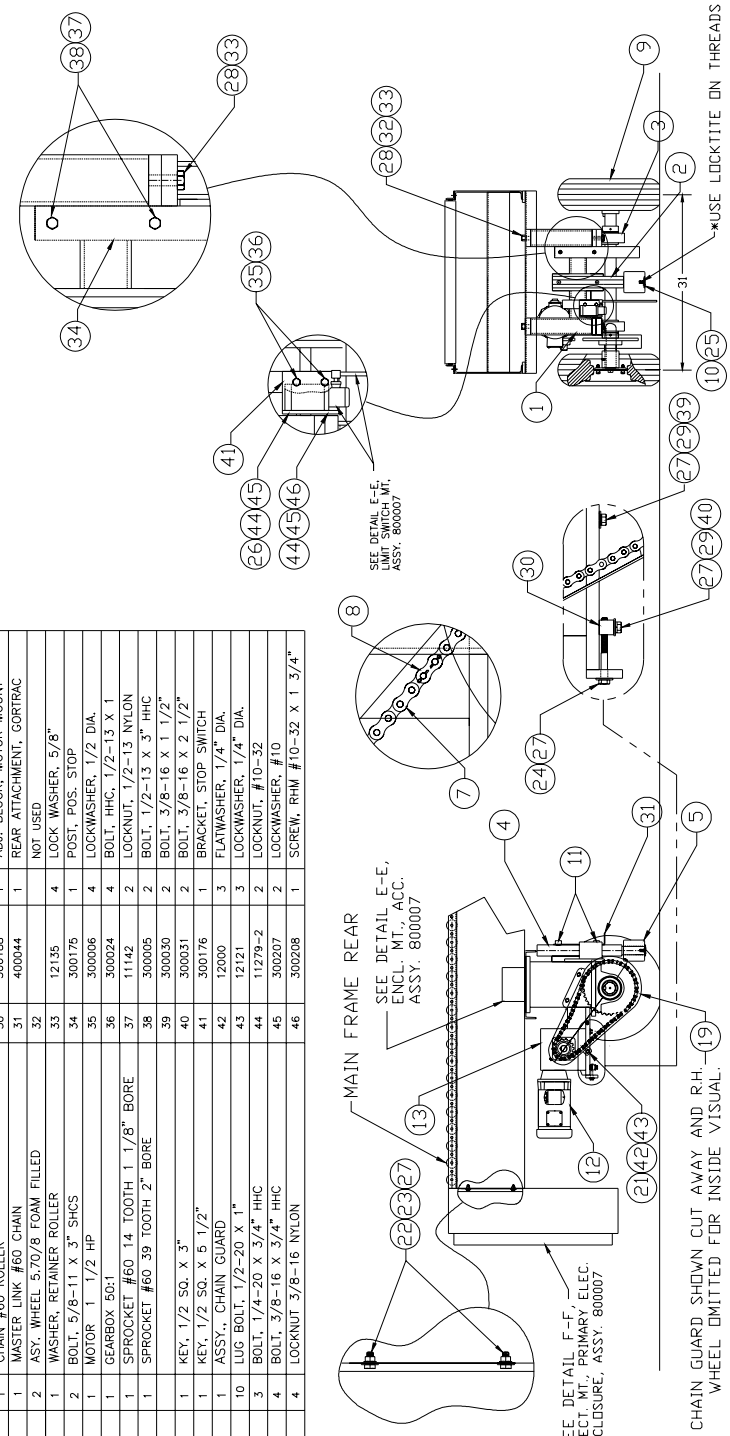
Rigid Belt, Rear Half, Frame Assembly



Item	Qty	Name	Description
800053			
1	1	300331	Main Frame, Rigid Belt, Rear
2	2	300502	Take-up Pulley Block
3	2	300344	Rigid Belt, Tail Pulley, Take-up Bolt Ass'y
4	1	300338	Rigid Belt, Tail Pulley
5	4	~300371	1/4-20, 7 ga Panel, U-type Clip Nut
6	1	300341	Rigid Belt, Tail Pulley Guard
7	4	~300373	Screw, 1/4-20 x 1 FHSHCS
8	2	~300503	Return Idler Support Bracket
9	4	12020	3/8" Flat Washer
10	4	11140	3/8-16 Nylon Locknut
11	4	10676	3/8-16 x 1 Carriage Bolt
12	2	300070	Roller 1.9 x 24 5/8
13	1	300364	1" 90 Deg Flex Connector
14	1	300365	1" E.M.T. Straight Compression Connector
15	1	300366	1" Rigid Conduit Coupler
16	1	300367	1" Straight Flex Connector
17	1	400172	1" Liquid Tight Flex x 18"
18	1	300297	Bushing, 1" T&B Plastic

Item	Qty	Name	Description
800053			
19	3	300085	1/2" 90 deg Flex Connector
20	3	300113	Bushing, 1/2" Plastic
21	1	400174	1/2" Liquid Tight Conduit x 36"
22	2	300370	1/2" Conduit Hanger
23	2	300372	Screw, #10 x 1 , HWH, Self Drilling TEK
24	2	800063	1/2" Conduit Clamp Ass'y
25	1	400182	1/2" Liquid Tight Conduit x 72"
26	1	300131	Connector, 1/2" Straight Flex

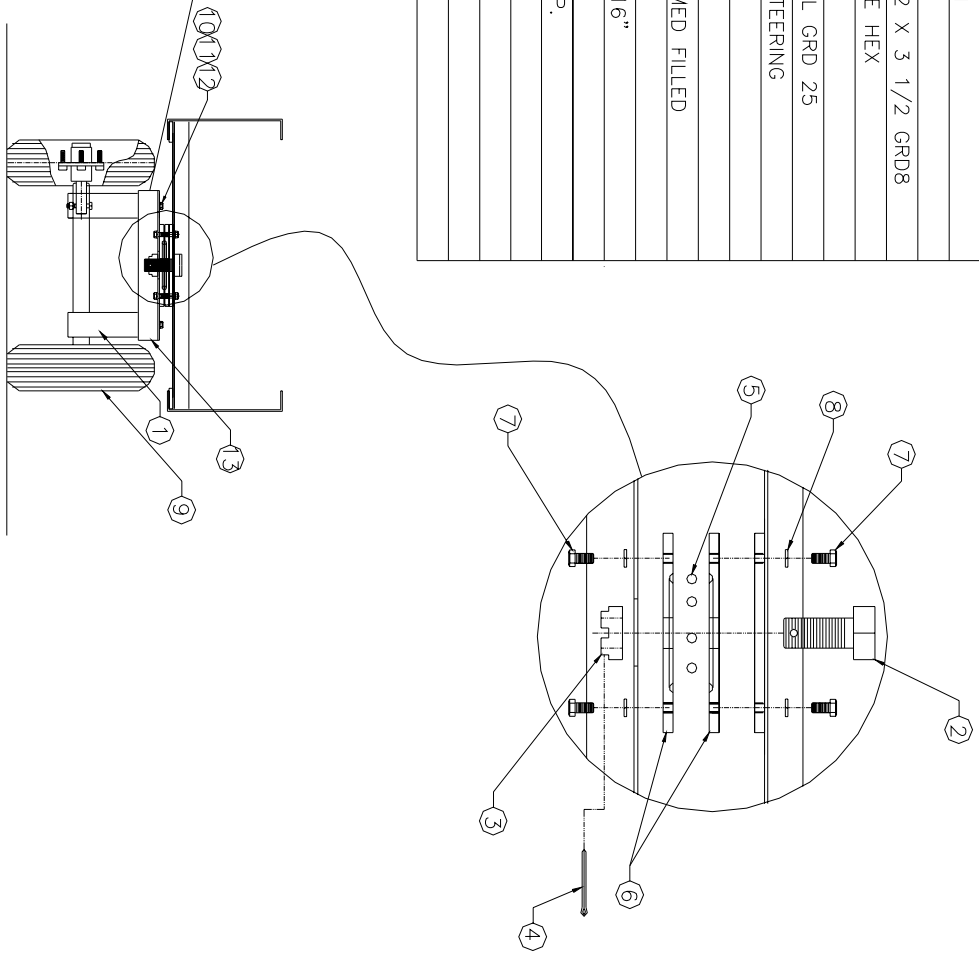
Assembly Rear Suspension



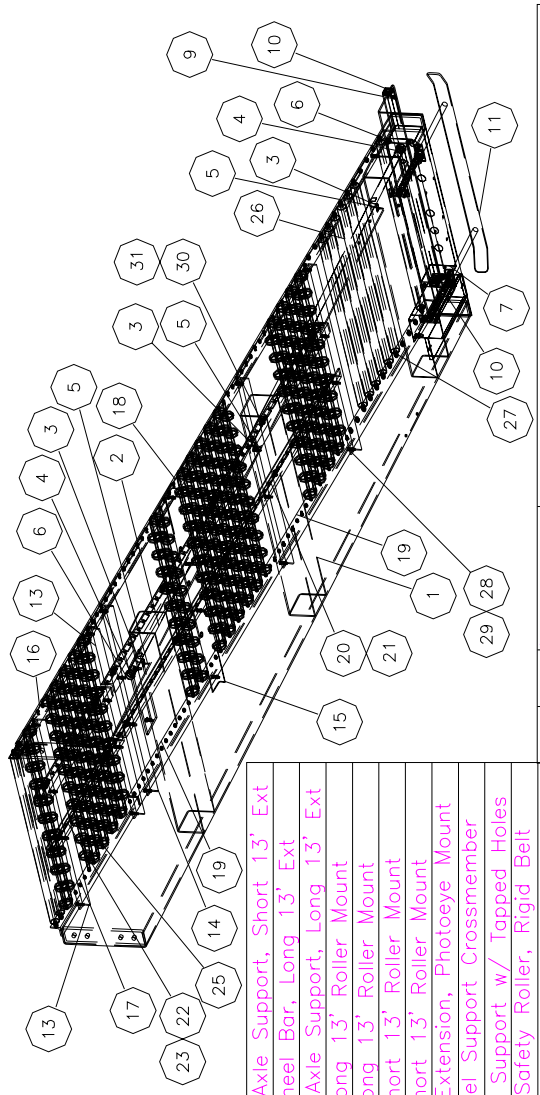
ITEM	PART NUMBER	QTY	DESCRIPTION
1	700005	1	WT., REAR LEG
2	300177	1	DRIVE AXLE
3	300029	2	PILLOW BLOCK BEARING, 2" ECC.
4	300185	1	BAR, DELRON ROLLER
5	300186	1	ROLLER, DELRON
6	300184	2	WT. HUB, REAR AXLE
7	400094	1	CHAIN #60 ROLLER
8	300037	1	MASTER LINK #60 CHAIN
9	300010	2	ASY. WHEEL 5.70/8 FOAM FILLED
10	300187	1	WASHER, RETAINER ROLLER
11	300002	2	BOLT, 5/8-11 X 3" SHCS
12	300032	1	MOTOR 1 1/2 HP
13	300033	1	GEARBOX 50:1
14	300038	1	SPROCKET #60 14 TOOTH 1 1/8" BORE
15	300039	1	SPROCKET #60 39 TOOTH 2" BORE
16			
17	400096	1	KEY, 1/2 SQ. X 3"
18	400097	1	KEY, 1/2 SQ. X 5 1/2"
19	400033	1	ASSY., CHAIN GUARD
20	300034	10	LUG BOLT, 1/2-20 X 1"
21	10010	3	BOLT, 1/4-20 X 3/4" HHC
22	–	4	BOLT, 3/8-16 X 3/4" HHC
23	11140	4	LOCKNUT 3/8-16 NYLON
24	300036	1	BOLT, 3/8-16 X 3 1/2 HHC
25	300045	1	SCREW, 1/2-13 X 1" CSK SOC
26	10530-2	1	SCREW, RHM #10-32 X 3/4"
27	12020	9	FLAT WASHER 3/8"
28	300020	4	BOLT, 5/8-11 X 2" HHC
29	12130	4	LOCKWASHER 3/8"
30	300188	1	ADJ. BLOCK, MOTOR MOUNT
31	400044	1	REAR ATTACHMENT, GORTRAC
32			NOT USED
33	12135	4	LOCK WASHER, 5/8"
34	300176	1	POST, POS. STOP
35	300006	4	LOCKWASHER, 1/2 DIA.
36	300024	4	BOLT, HHC, 1/2-13 X 1
37	11142	2	LOCKNUT, 1/2-13 NYLON
38	300005	2	BOLT, 1/2-13 X 3" HHC
39	300030	2	BOLT, 3/8-16 X 1 1/2"
40	300031	2	BOLT, 3/8-16 X 2 1/2"
41	300176	1	BRACKET, STOP SWITCH
42	12000	3	FLATWASHER, 1/4" DIA.
43	12121	3	LOCKWASHER, 1/4" DIA.
44	11279-2	2	LOCKNUT, #10-32
45	300207	2	LOCKWASHER, #10
46	300208	1	SCREW, RHM #10-32 X 1 3/4"

Assembly, Front Suspension

800056			
ITEM	PART NUMBER	QTY	DESCRIPTION
1	300325	1	WT. FRONT SUSPENSION
2	300013	1	BOLT, HHCS 1 1/2 – 12 X 3 1/2 GRD8
3	300014	1	NUT, 1 1/2 X 12 CASTLE HEX
4	300015	1	PIN, 3/8"ø X 2 1/2"
5	300012	34	BEARING, 1/2 BALL STEEL GRD 25
6	350169	2	BEARING PLATE, FRONT STEERING
7	300024	8	BOLT, 1/2" – 13 X 1"
8	300006	8	LOCK WASHER, 1/2"
9	300010	2	ASY. WHEEL 570/8 FOAMED FILLED
10	300020	4	BOLT, HHC, 5/8–11 X 2
11	300021	4	WASHER, FLAT, 5/8 X 1/16"
12	12135	4	WASHER, LOCKING, 5/8"
13	750002	1	WT, CHANNEL, FRONT SUSP.



Rigid Belt 13 Ft. Gravity Discharge Section



Item	Qty	Name	Description
1	1	300330	Gravity Discharge 13' Weldment
2	1	100029	3/4 E.M.T. x 10'
3	3	300126	3/4 E.M.T. Single Bolt Strap
4	2	300114	3/4 E.M.T. Straight Connector
5	3	300372	Screw, #10 x 1 Self Drilling, TEK
6	2	300112	Bushing, 3/4 Plastic
7	1	300340	Rigid Belt, Operator Control Box
8	1	800064	Electrical Assembly, 13' Extension
9	1	300343	Rigid Belt, Package Stop Bar
10	2	14070	Leg Cap, 1-1/4 Sqr 14 Ga
11	1	800060	Safety Stop, Push Bar Sub-Assembly
12	1	400187	Lanyard, Safety Roller, Rigid Belt
13	2	300566	Skate Wheel Support w/ Tapped Holes
14	3	300558	Skate Wheel Support Crossmember
15	1	300393	Rigid Belt, Extension, Photoeye Mount
16	1	300561	L.H. Short 13' Roller Mount
17	1	300562	R.H. Short 13' Roller Mount
18	1	300342	L.H. Long 13' Roller Mount
19	1	300559	R.H. Long 13' Roller Mount
20	2	300557	Skate Wheel Axle Support, Long 13' Ext
21	2	300564	Skate Wheel Bar, Long 13' Ext
22	2	300563	Skate Wheel Axle Support, Short 13' Ext

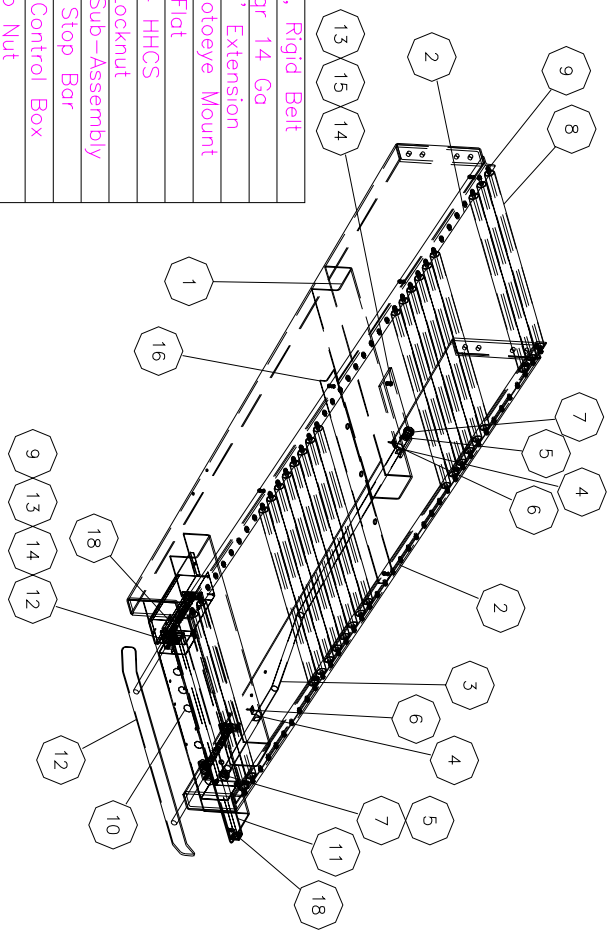
Item	Qty	Name	Description
26	14	50087-30	Roller, Gravity 1 3/8 x 31 OAL
25	126	11120	1/4 - 20 Locknut Nylon Cap
24	63	800083	Rigid Belt, Skate Wheel/Axle Sub-Assembly
23	2	300565	Skate Wheel Bar, Short 13' Ext
32	2	12000	Washer, Flat, 1/4"
31	14	10576	1/4 - 20 x 3/4 Carriage Bolt
30	14	300068	1/4 - 20 Hex Nut
29	30	11110	1/4 - 20 Nylon Locknut
28	34	10012	1/4 - 20 x 1 HHCS
27	28	11121	5/16-18 Cap Nut

800051

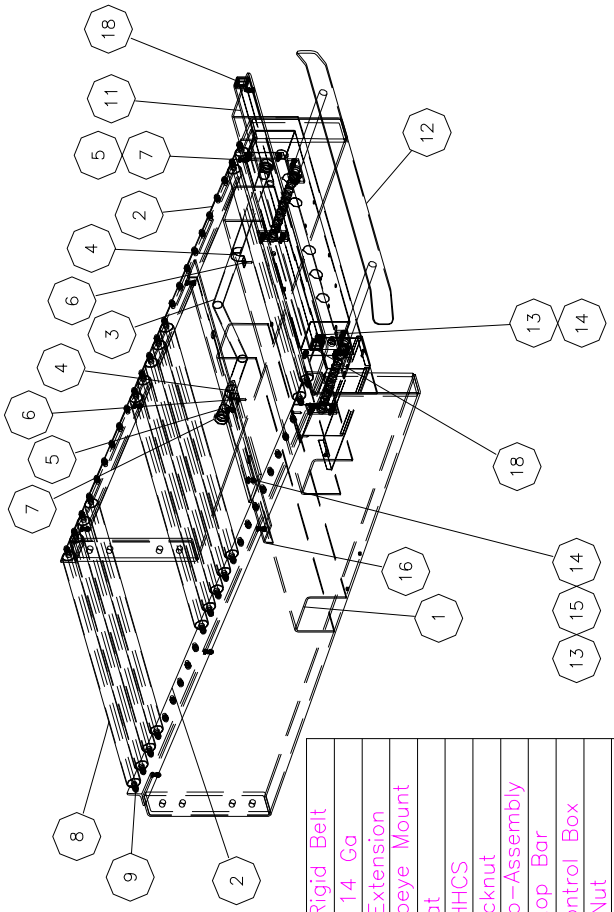
Rigid Belt 8 Ft. Gravity Discharge Section

Item	Qty	Name	Description
19	2	400187	Lanyard, Safety Roller, Rigid Belt
18	2	14070	Leg Cap, 1-1/4 Sqr 14 Ga
17	1	800065	Electrical Assembly, 8' Extension
16	1	300393	Rigid Belt, Extension Photoeye Mount
15	2	12000	Washer, 1/4 Flat
14	18	10010	1/4 - 20 x 3/4 HHCS
13	18	11110	1/4 -20 Nylon Locknut
12	1	800060	Safety Stop, Push Bar Sub-Assembly
11	1	300343	Rigid Belt, Package Stop Bar
10	1	300340	Rigid Belt, Operator's Control Box
9	78	11121	5/16 - 18 Cap Nut
8	39	50087-30	Roller, Gravity 1 3/8 x 31 OAL
7	2	300112	Bushing 3/4 Plastic
6	2	300372	Screw, #10 x 1 HWH, Self Drilling TEK
5	2	300114	3/4 E.M.T. Straight Connector
4	2	300126	3/4 E.M.T. Single Bolt Strap
3	1	400170	Gravity Discharge, 8' Option, 3/4 Conduit
2	2	300347	Gravity Discharge, 8' Roller Mount
1	1	300345	Gravity Discharge, 8' Weldment

800054



Rigid Belt 5 Ft. Gravity Discharge Section

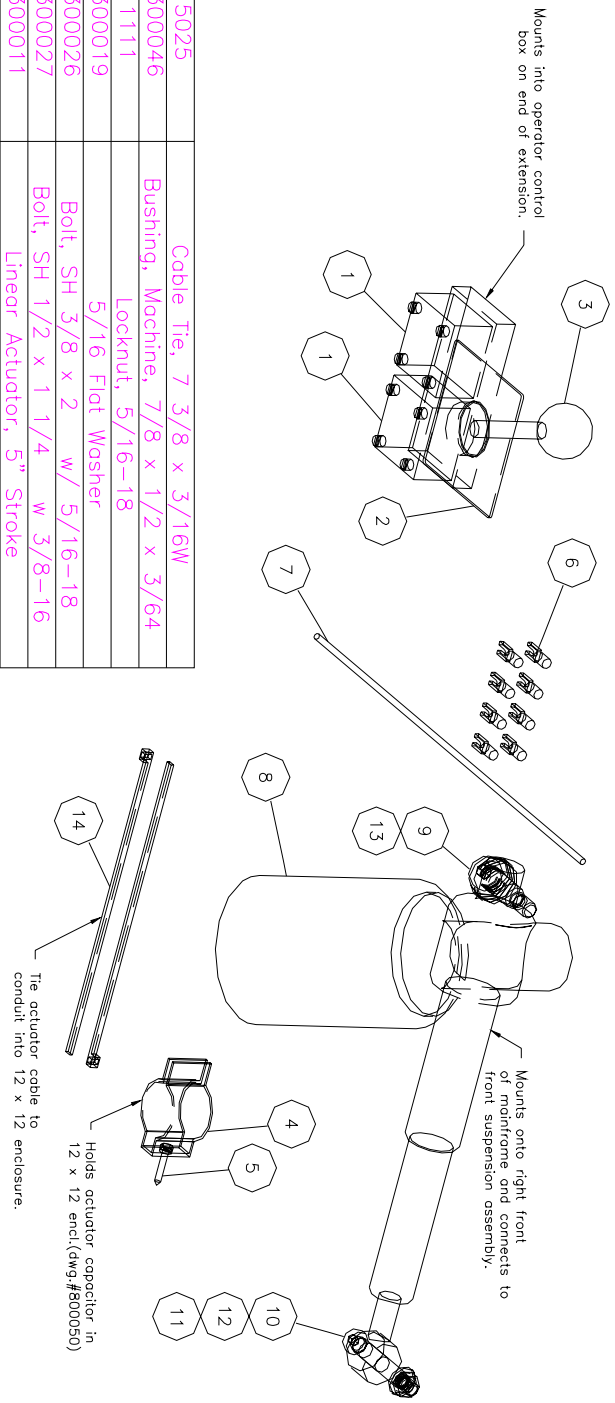


Item	Qty	Name	Description
19	2	400187	Lanyard, Safety Roller, Rigid Belt
18	2	14070	Leg Cap, 1-1/4 Sqr 14 Ga
17	1	800066	Electrical Assembly, 5' Extension
16	1	300393	Rigid Belt, Extension Photoeye Mount
15	2	12000	Washer, 1/4" Flat
14	16	10010	1/4 - 20 x 3/4 HHCS
13	16	11110	1/4 - 20 Nylon Locknut
12	1	800060	Safety Stop, Push Bar Sub-Assembly
11	1	300343	Rigid Belt, Package Stop Bar
10	1	300340	Rigid Belt, Operator's Control Box
9	48	11121	5/16 - 18 Cap Nut
8	24	50087-30	Roller, Gravity 1 3/8 x 31 OAL
7	2	300112	Bushing, 3/4 Plastic
6	2	300372	Screw, #10 x 1 HWH Self Drilling, TEK
5	2	300114	3/4 E.M.T. Straight Connector
4	2	300126	3/4 E.M.T. Single Bolt Strap
3	1	400171	Gravity Discharge, 5' Option 3/4" Conduit
2	2	300348	Gravity Discharge, 5' Roller Mount
1	1	300346	Gravity Discharge, 5' Weldment

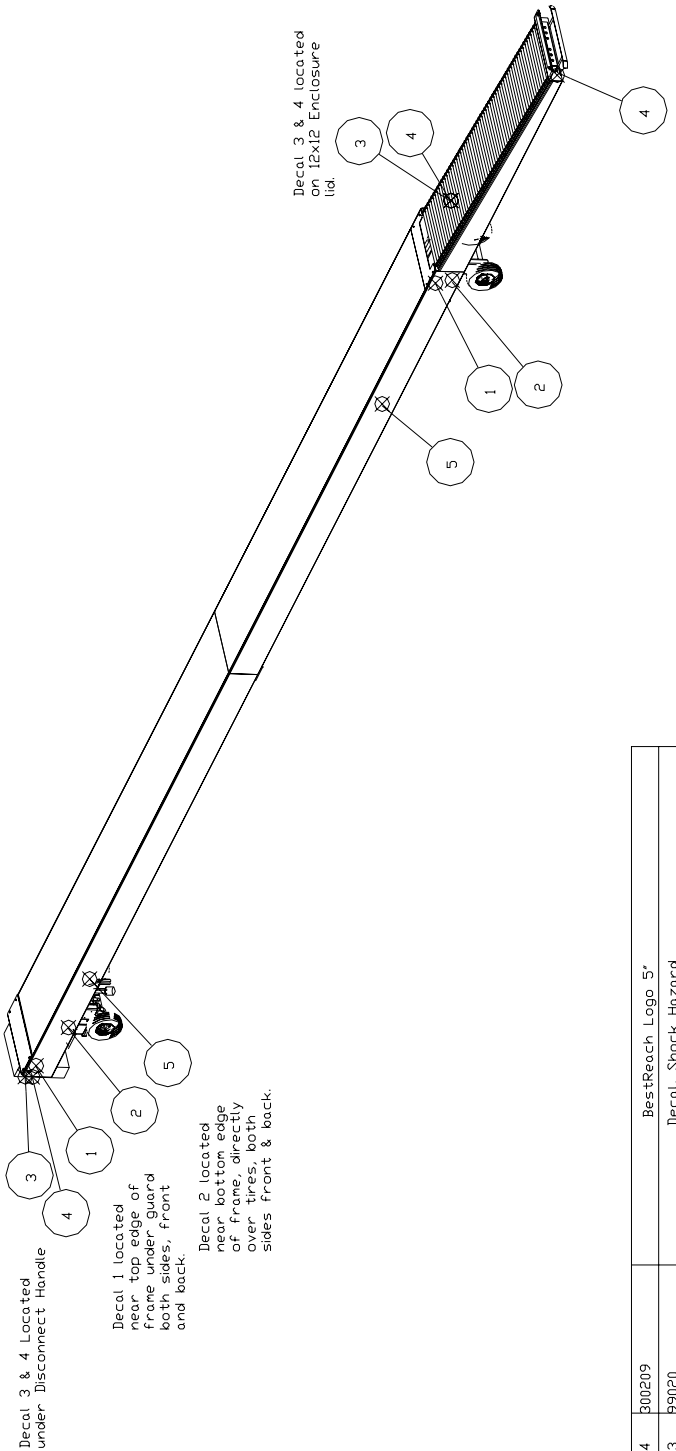
800055

Power Steering Assembly, Rigid Belt

Item	Qty	Name	Description
1	2	300146	Double Contacts
2	1	300147	Nameplate, Arrows
3	1	300145	Joystick
4	1	300124	1 1/4 Single Bolt EMT Clamp
5	1	300372	#10 x 1 HWH Self Drilling Tek Screw
6	8	15015-2	Terminal, Fork, #8 stud, 12-14 ga
7	22	100042	Wire, 16 ga. , TFFN, Red, Ft.
8	1	300011	Linear Actuator, 5" Stroke
9	1	300027	Bolt, SH 1/2 x 1 1/4 w 3/8-16
10	1	300026	Bolt, SH 3/8 x 2 w/ 5/16-18
11	1	300019	5/16 Flat Washer
12	1	11111	Locknut, 5/16-18
13	4	300046	Bushing, Machine, 7/8 x 1/2 x 3/64
14	2	15025	Cable Tie, 7 3/8 x 3/16W
		80068	



Decal Group, Rigid Belt

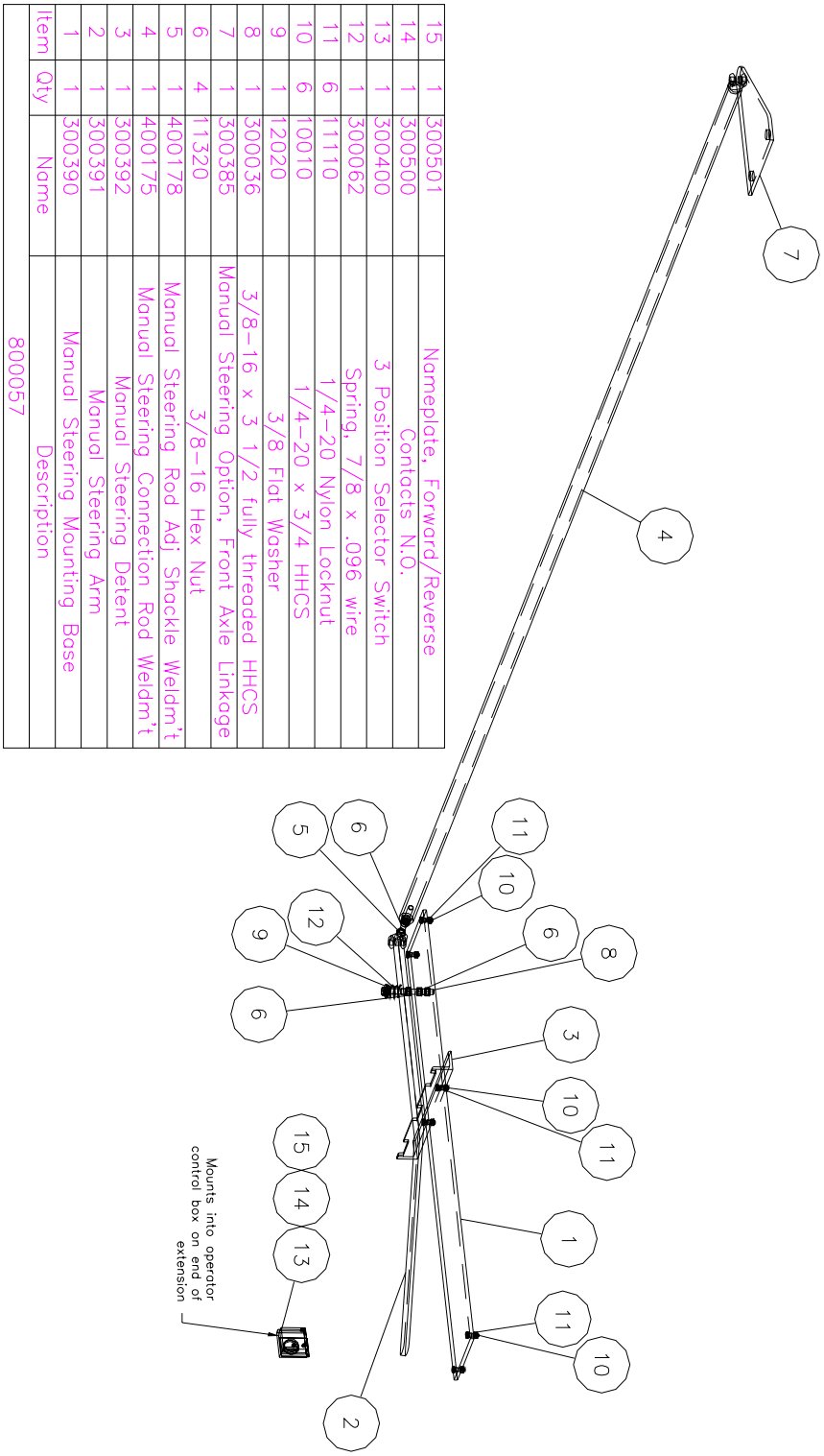


Item	Qty	Name	Description
5	4	300209	BestReach Logo 5"
4	3	99020	Decal, Shock Hazard
3	2	300103	Decal, High Voltage
2	4	300104	Decal, Keep Clear
1	4	300519	Decal, Keep Guards in Place

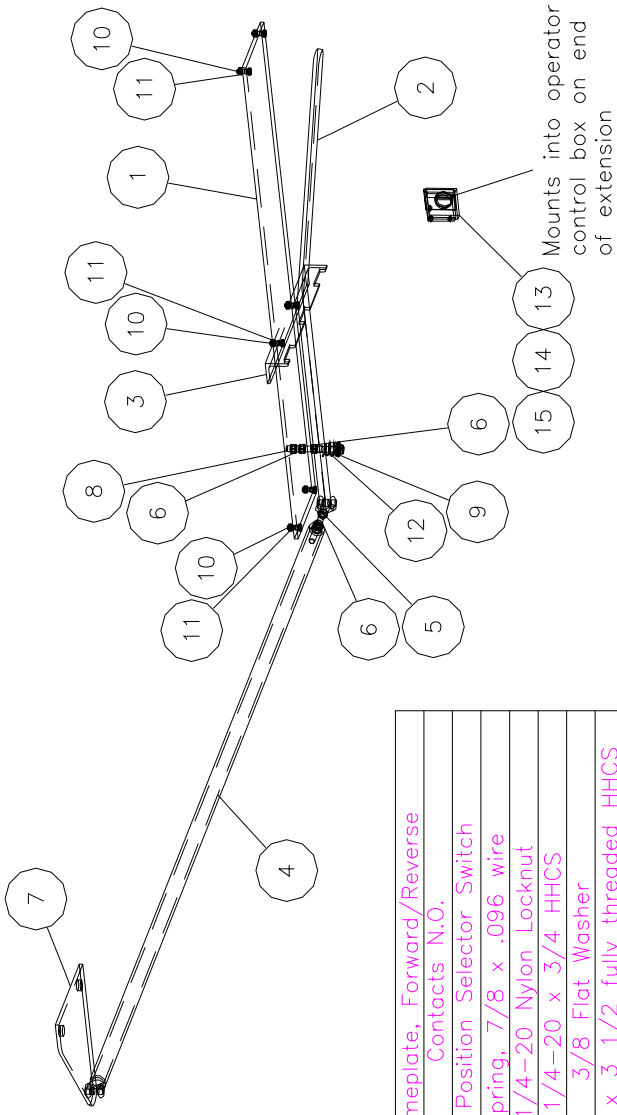
800076

Rigid Belt, Manual Steering Option, 13 Ft.

Item	Qty	Name	Description
15	1	300501	Nameplate, Forward/Reverse
14	1	300500	Contacts N.O.
13	1	300400	3 Position Selector Switch
12	1	300062	Spring, 7/8 x .096 wire
11	6	11110	1/4-20 Nylon Locknut
10	6	10010	1/4-20 x 3/4 HHCS
9	1	12020	3/8 Flat Washer
8	1	300036	3/8-16 x 3 1/2 fully threaded HHCS
7	1	300385	Manual Steering Option, Front Axle Linkage
6	4	11320	3/8-16 Hex Nut
5	1	400178	Manual Steering Rod Adj Shackle Weldm't
4	1	400175	Manual Steering Connection Rod Weldm't
3	1	300392	Manual Steering Detent
2	1	300391	Manual Steering Arm
1	1	300390	Manual Steering Mounting Base
		80057	



Rigid Belt, Manual Steering Option, 8 Ft.

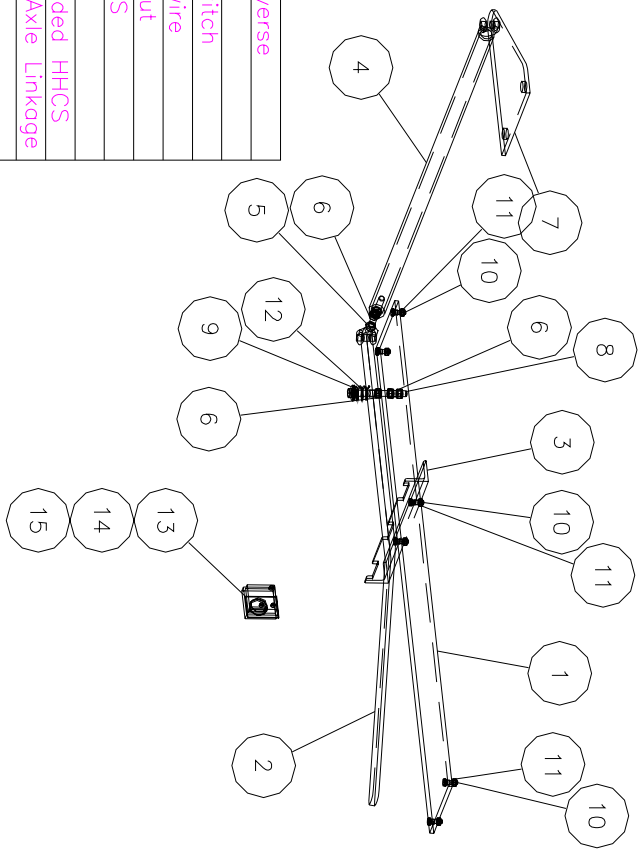


Item	Qty	Name	Description
15	1	300501	Nameplate, Forward/Reverse
14	1	300500	Contacts N.O.
13	1	300400	3 Position Selector Switch
12	1	300062	Spring, 7/8 x .096 Wire
11	6	11110	1/4-20 Nylon Locknut
10	6	10010	1/4-20 x 3/4 HHCS
9	1	12020	3/8 Flat Washer
8	1	300036	3/8-16 x 3 1/2 fully threaded HHCS
7	1	300385	Manual Steering Option, Front Axle Linkage
6	4	11320	3/8-16 Hex Nut
5	1	400178	Manual Steering Rod Adj Shackle Weldm't
4	1	400176	Manual Steering Connection Rod Weldm't 8'
3	1	300392	Manual Steering Detent
2	1	300391	Manual Steering Arm
1	1	300390	Manual Steering Mounting Base

800058

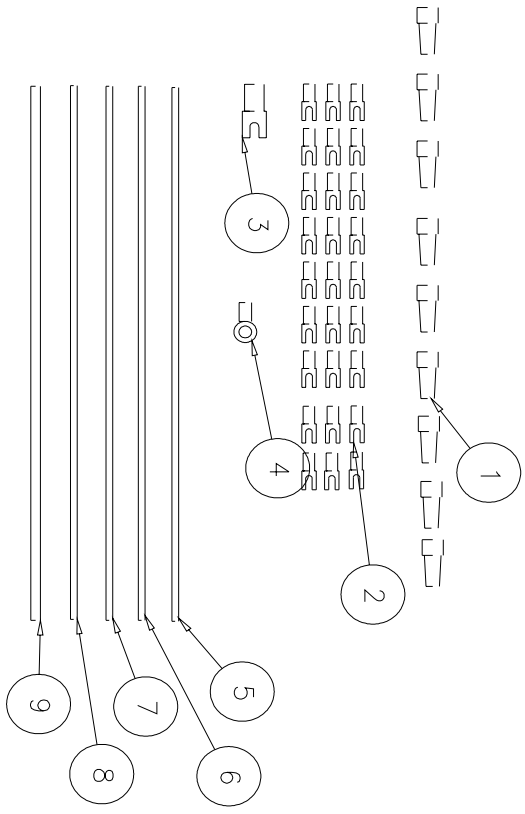
Rigid Belt, Manual Steering Option, 5 Ft.

Item	Qty	Name	Description
15	1	300501	Nameplate, Forward/Reverse
14	1	300500	Contacts, N.O.
13	1	300400	3 Position Selector Switch
12	1	300062	Spring, 7/8 x .096 wire
11	6	11110	1/4-20 Nylon Locknut
10	6	10010	1/4-20 x 3/4 HHCS
9	1	12020	3/8 Flat Washer
8	1	300036	3/8-16 x 3 1/2 fully threaded HHCS
7	1	300385	Manual Steering Option, Front Axle Linkage
6	4	11320	3/8-16 Hex Nut
5	1	400178	Manual Steering Rod Adj Shackle Weldm't
4	1	400177	Manual Steering Connection Rod 5'
3	1	300392	Manual Steering Detent
2	1	300391	Manual Steering Arm
1	1	300390	Manual Steering Mounting Base
		800059	



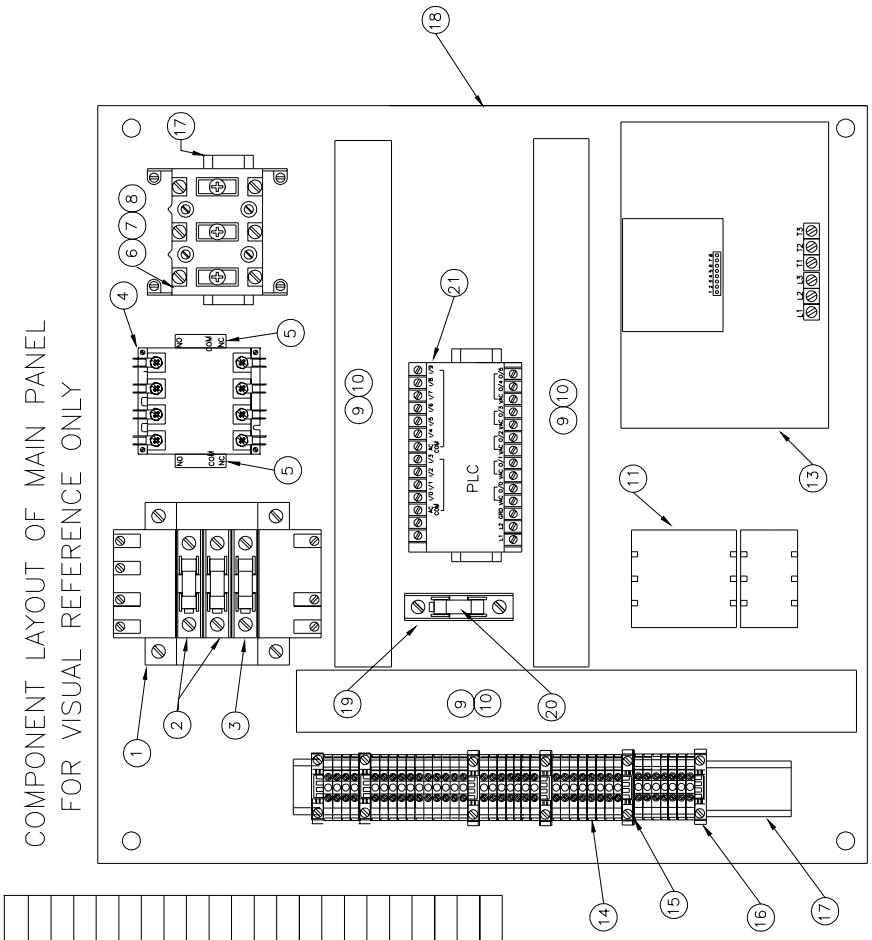
Assembly Diagrams of Electrical Components and Parts List of BestReach™ Rigid Belt Conveyor.

Electrical Assembly, Main Frame



Item	Qty	Name	Description
Electrical Assembly. – Extension			
1	9	15026	Wire Nut, Yellow
2	27	15015-2	Terminal, Fork, #8 stud, 12-14 ga.
3	1	15015	Terminal, Fork, #10 stud, 12-14 ga.
4	1	15016	Terminal, Ring .25 stud, 12-14 ga.
5	571	100042	Wire, 16 ga. TFFN, Red
6	110	300303	Wire, 16 ga. TFFN, Yellow
7	55	15280-W	Wire, 16 ga. TFFN, White
8	180	15280-B	Wire, 16 ga. TFFN, Black
9	67	100049	Wire, 14 ga. THHN, Green

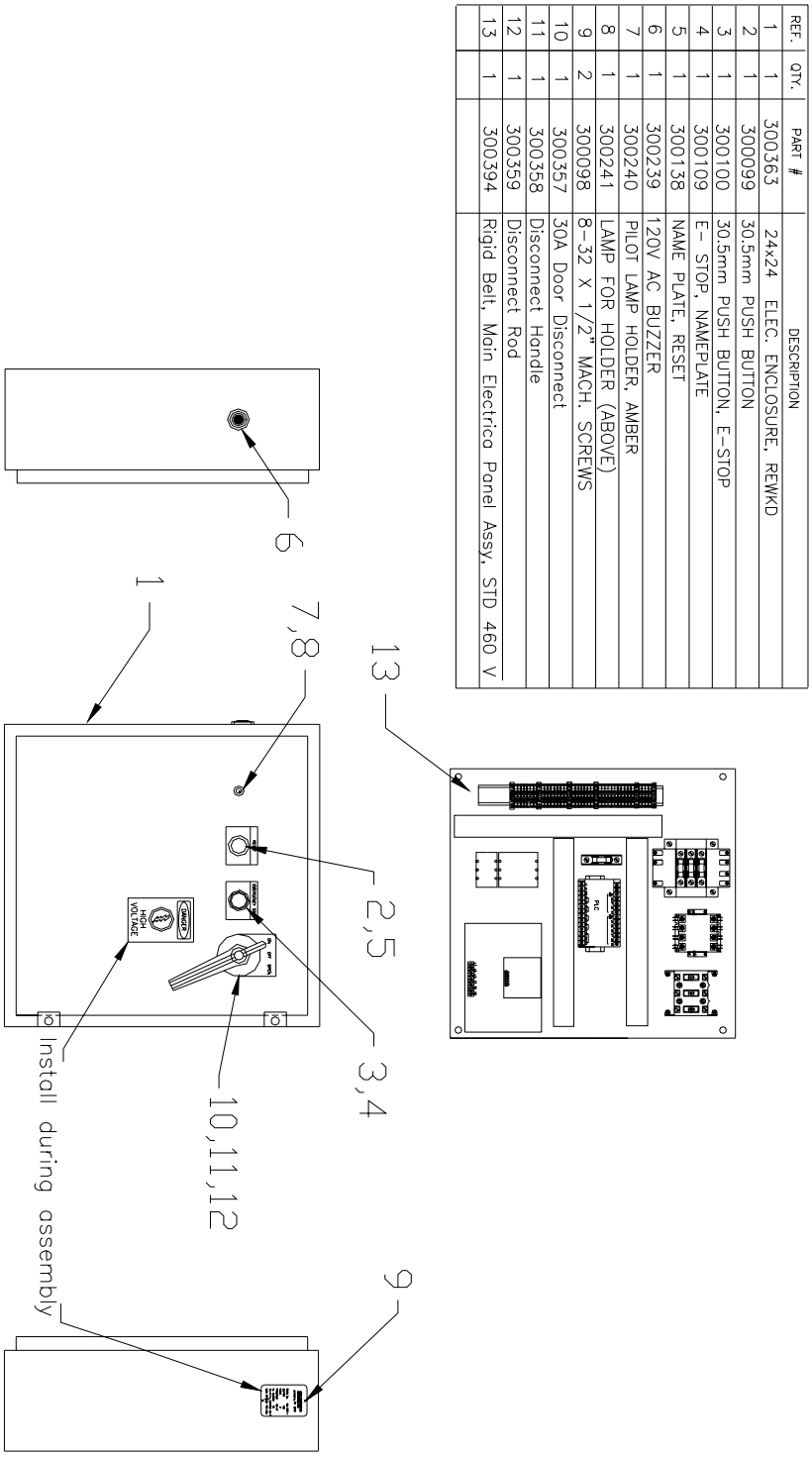
Component Layout Main Elec. Enclosure



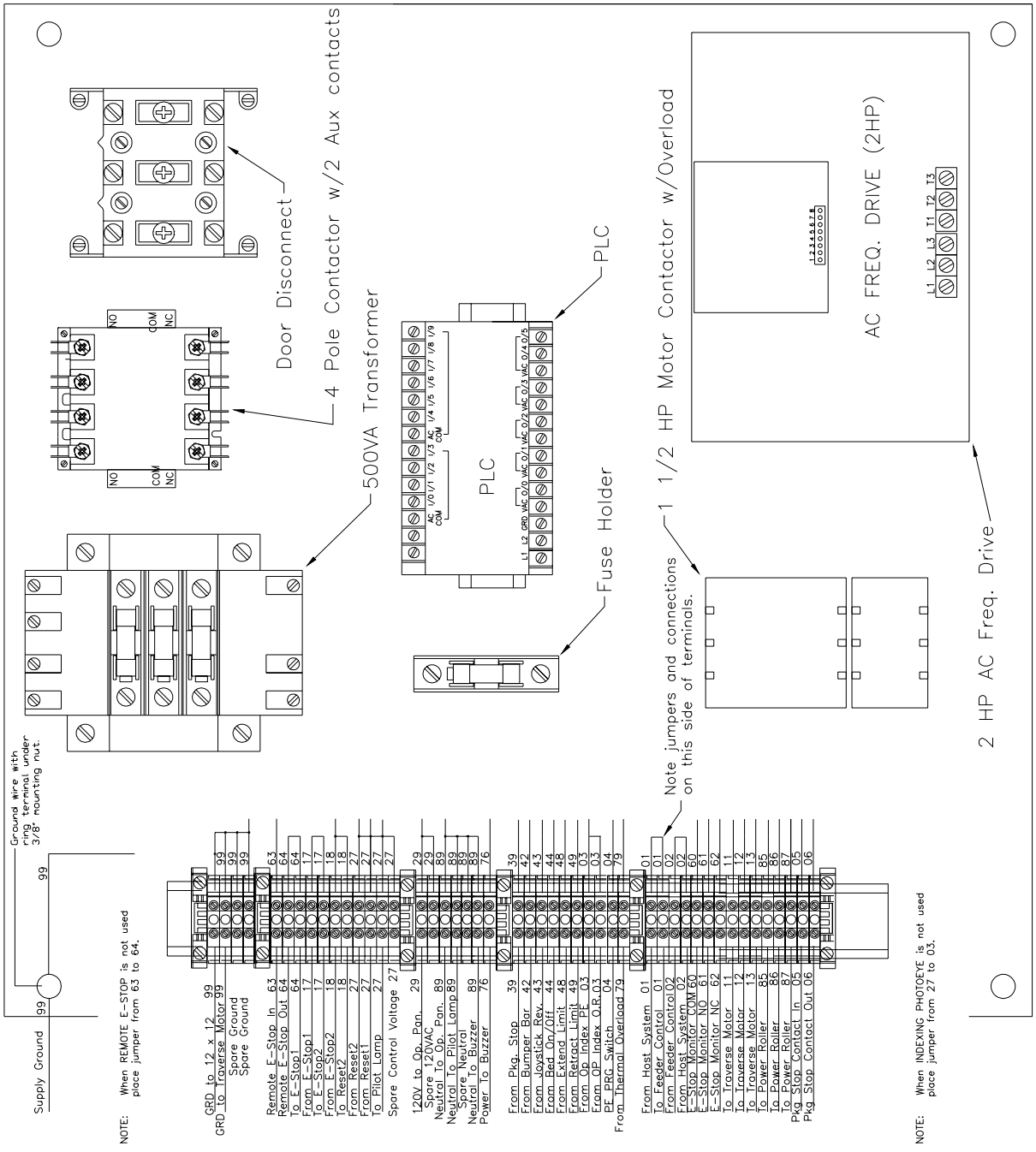
REF.	QTY.	PART #	DESCRIPTION
1	1	300350	CONTROL TRANSFORMER, 500VA
2	2	300360	Fuse, 1.5A 600V
3	1	300252	Fuse, 2A 250V
4	1	300352	4 Pole Contactor
5	2	300361	Aux contact
6	1	300357	30A Door Disconnect
7	1	300358	Disconnect Handle
8	1	300359	Disconnect Rod
9	3	300254	Wire Duct, 1" x 1.5"
10	3	300255	Wire Duct Cover, 1"
11	1	300354	1 1/2 HP Starter, w/Overload
12	–	–	–
13	1	300353	2HP AC Freq. Drive, 480V
14	41	300247	Terminal Block
15	6	300249	End Cap
16	6	300248	Terminal Anchor
17	1	300246	DIN Rail
18	1	300244	Back Panel
19	1	300256	Fuse Block
20	1	300356	Fuse, 4A 250V
21	1	300351	PLC

Main Elec. Enclosure w/Panel, 460V Std Speed

REF.	QTY.	PART #	DESCRIPTION
1	1	300363	24x24 ELEC. ENCLOSURE, REWKD
2	1	300099	30.5mm PUSH BUTTON
3	1	300100	30.5mm PUSH BUTTON, E-STOP
4	1	300109	E- STOP, NAMEPLATE
5	1	300138	NAME PLATE, RESET
6	1	300239	120V AC BUZZER
7	1	300240	PILOT LAMP HOLDER, AMBER
8	1	300241	LAMP FOR HOLDER (ABOVE)
9	2	300098	8-32 X 1/2" MACH. SCREWS
10	1	300357	30A Door Disconnect
11	1	300358	Disconnect Handle
12	1	300359	Disconnect Rod
13	1	300394	Rigid Belt, Main Electrica Panel Assy, STD 460 V

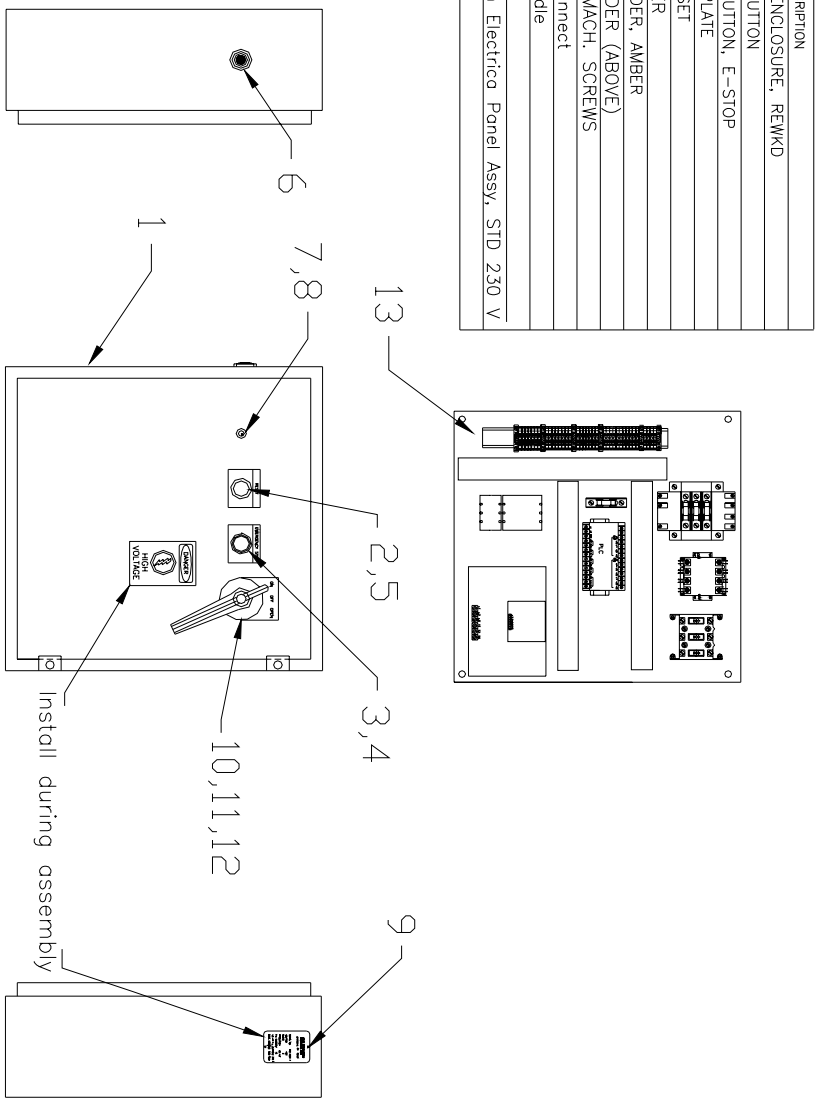


Main Electrical Panel Layout, 460V, Std Speed

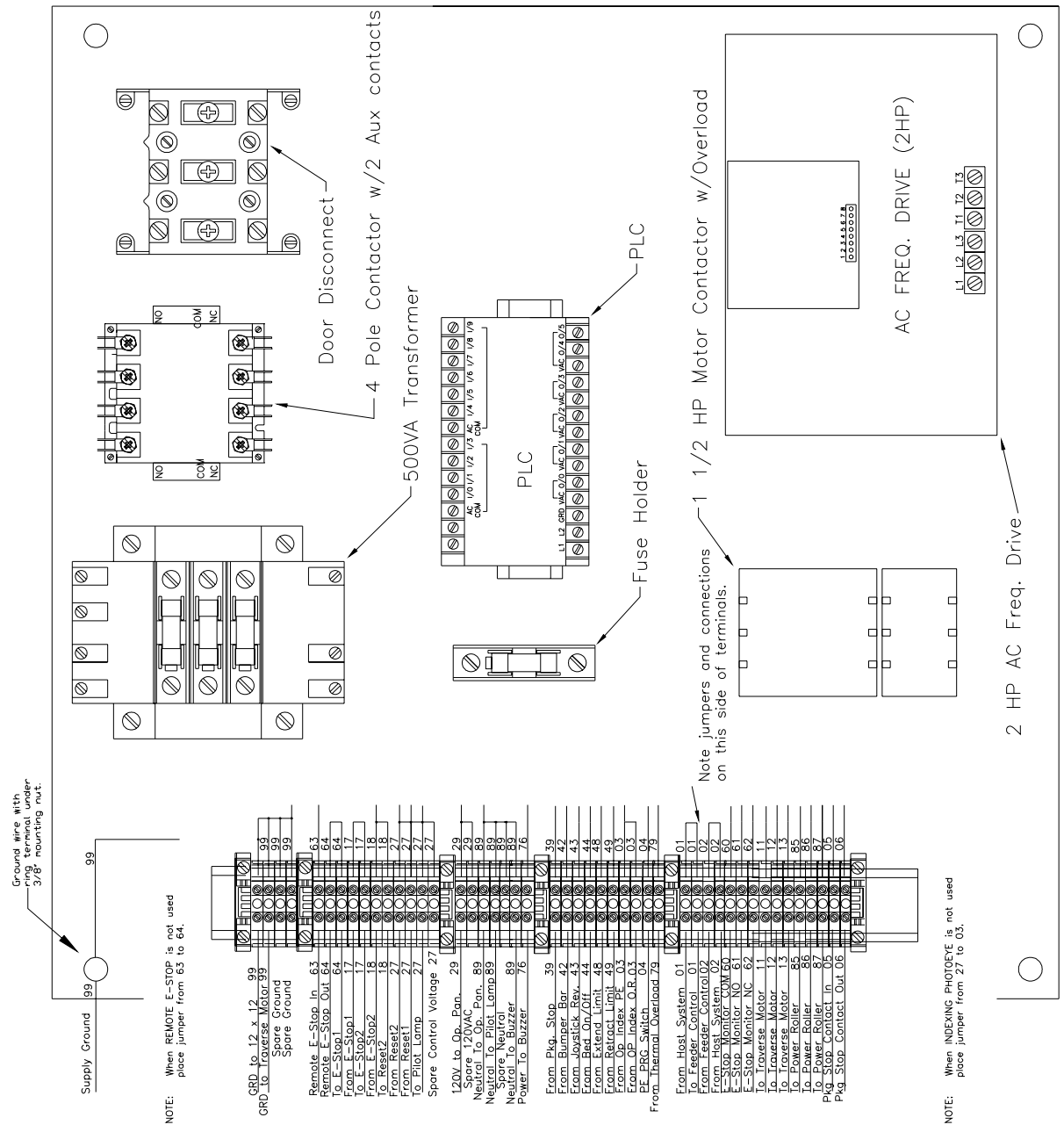


Main Elec. Enc. w/Panel 230V Std. Speed

REF.	QTY.	PART #	DESCRIPTION
1	1	300363	24x24 ELEC. ENCLOSURE, REWKD
2	1	300099	30.5mm PUSH BUTTON
3	1	300100	30.5mm PUSH BUTTON, E-STOP
4	1	300109	E- STOP, NAMEPLATE
5	1	300138	NAME PLATE, RESET
6	1	300239	120V AC BUZZER
7	1	300240	PILOT LAMP HOLDER, AMBER
8	1	300241	LAMP FOR HOLDER (ABOVE)
9	2	300098	8-32 X 1/2" MACH. SCREWS
10	1	300357	30A Door Disconnect
11	1	300358	Disconnect Handle
12	1	300359	Disconnect Rod
13	1	300394	Rigid Belt, Main Electrica Panel Assy, STD 230 V

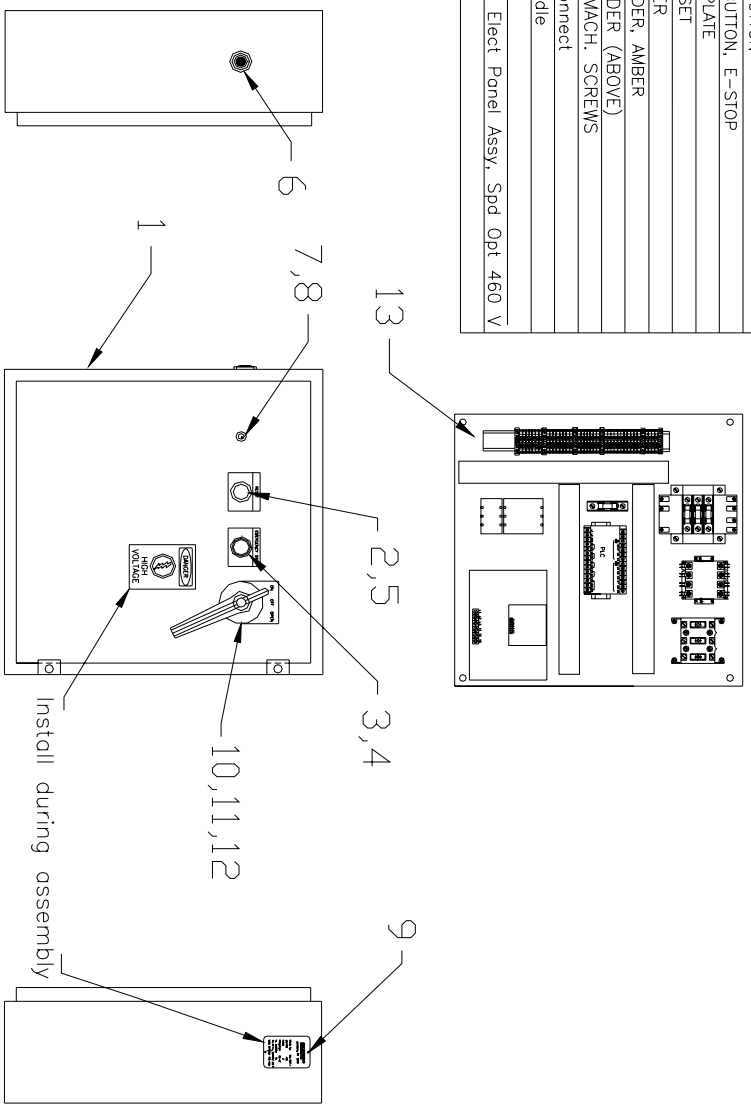


Main Electrical Panel Layout, 230V, Std. Speed

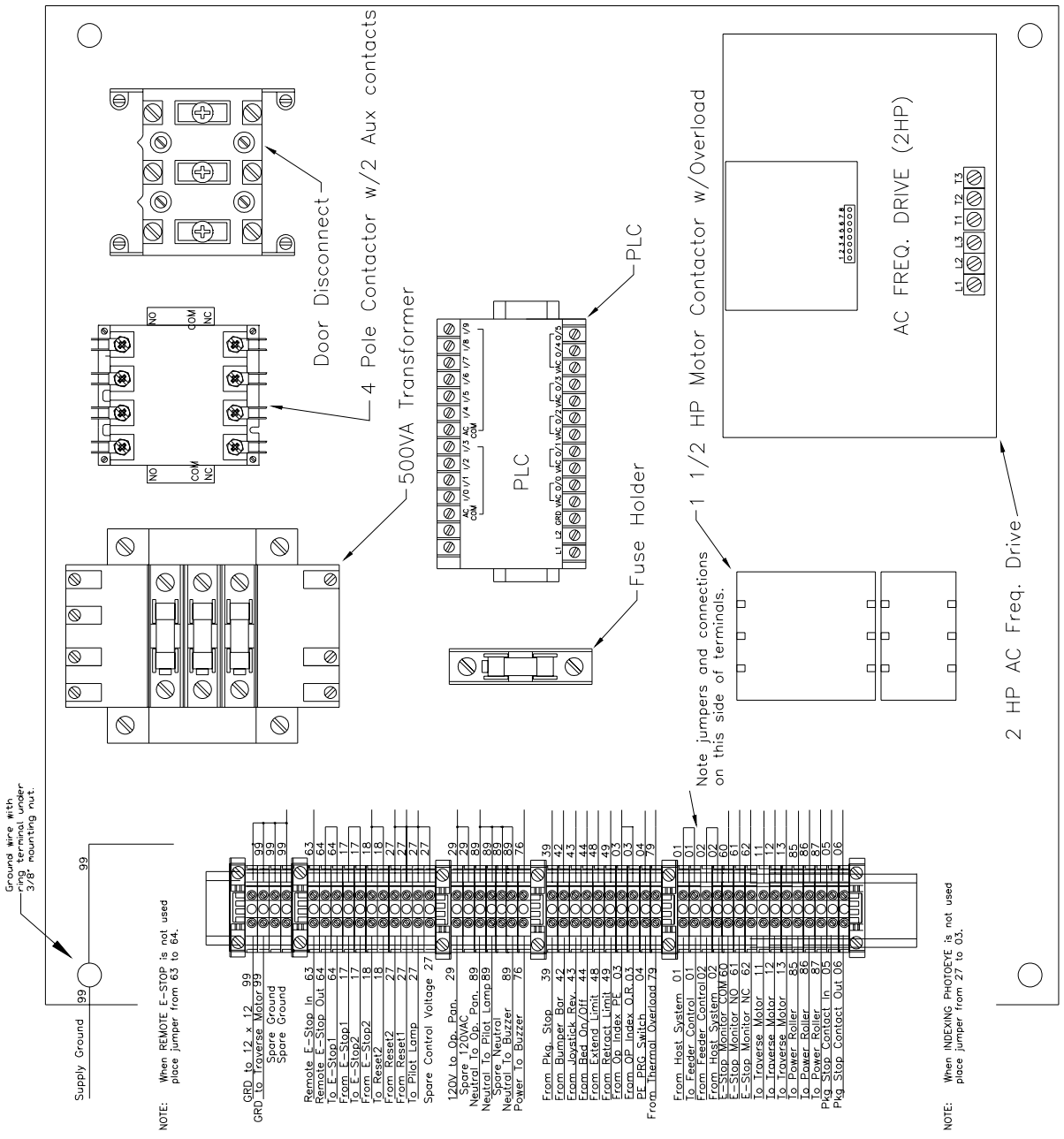


Main Elec. Enc. w/Panel, 460V Speed Opt.

REF.	QTY.	PART #	DESCRIPTION
1	1	300363	24x24 ELEC. ENCLOSURE, REWKD
2	1	300099	30.5mm PUSH BUTTON
3	1	300100	30.5mm PUSH BUTTON, E-STOP
4	1	300109	E- STOP, NAMEPLATE
5	1	300138	NAME PLATE, RESET
6	1	300239	120V AC BUZZER
7	1	300240	PILOT LAMP HOLDER, AMBER
8	1	300241	LAMP FOR HOLDER (ABOVE)
9	2	300098	8-32 X 1/2" MACH. SCREWS
10	1	300357	30A Door Disconnect
11	1	300358	Disconnect Handle
12	1	300359	Disconnect Rod
13	1	300394	Rigid Belt, Main Elect Panel Assy, Spd Opt 460 V

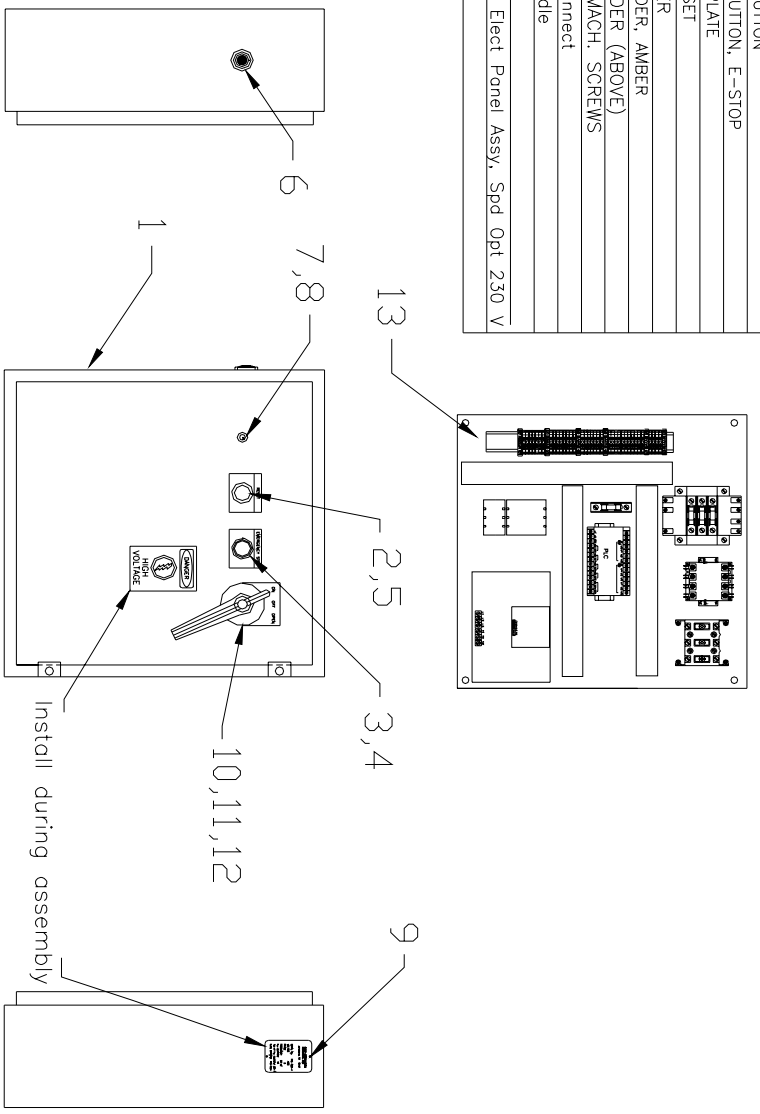


Main Electrical Panel Layout, 480V, Speed Opt.

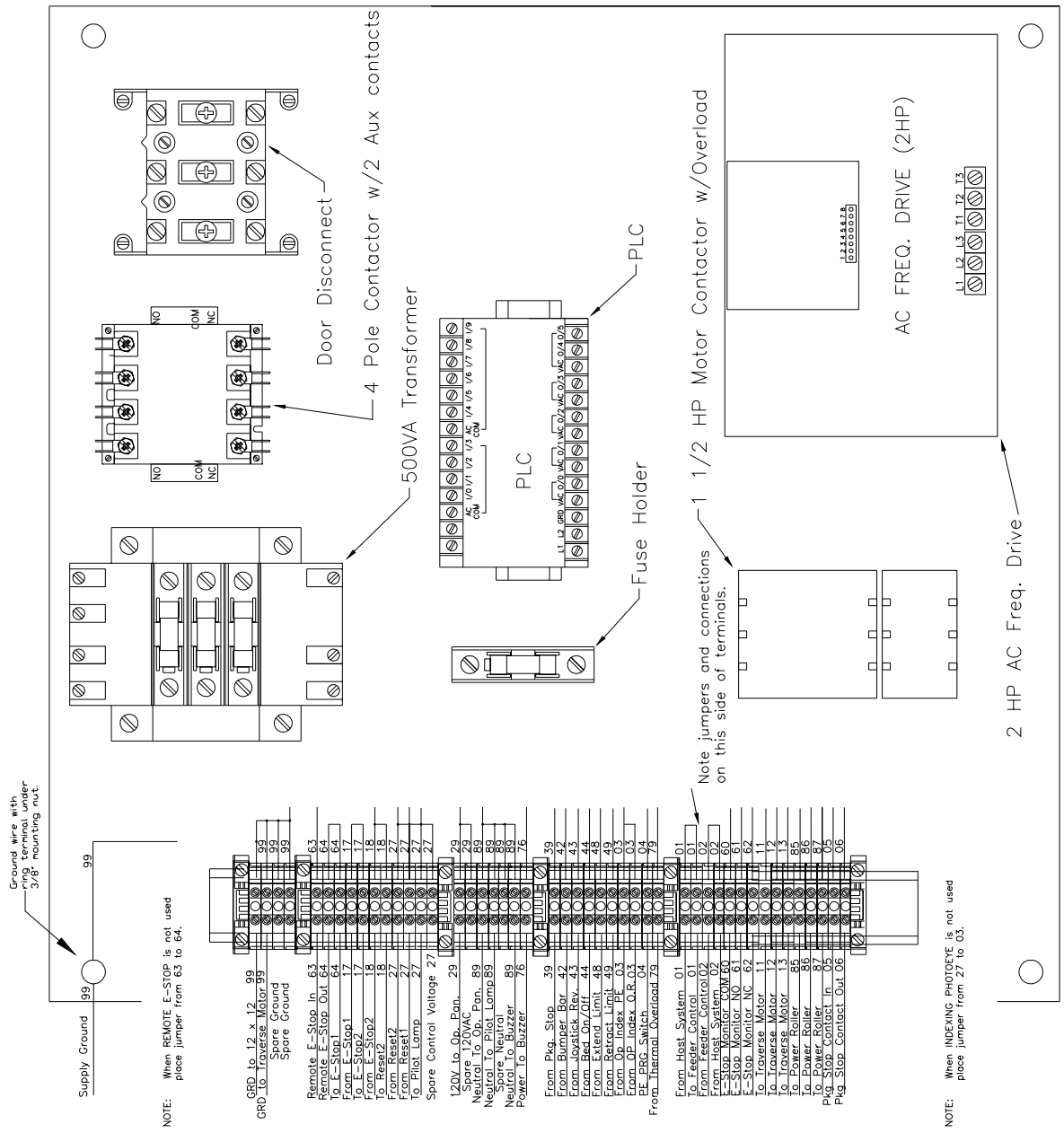


Rigid Belt, Main Elec. w/Panel, 230V, Speed Opt.

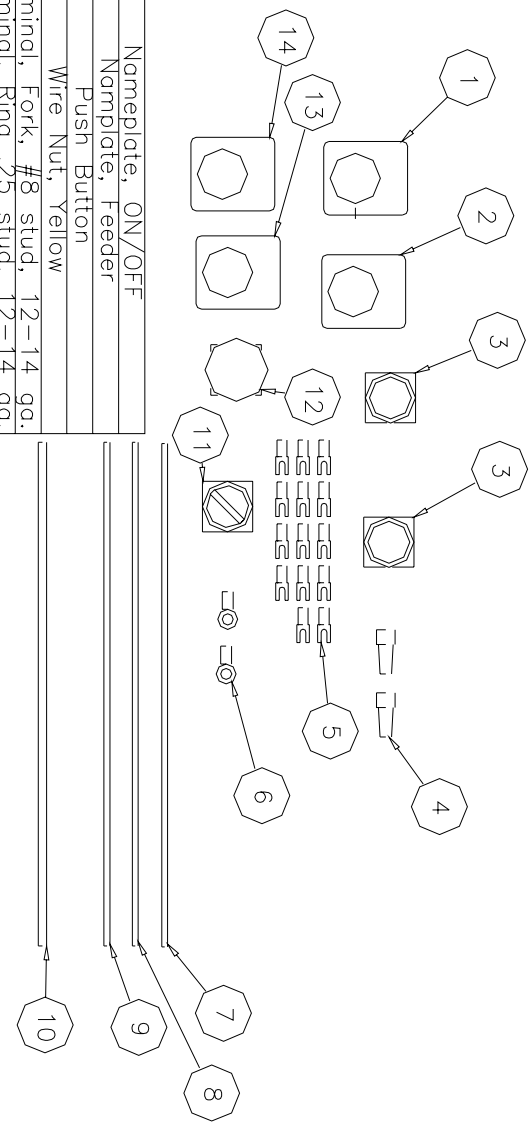
REF.	QTY.	PART #	DESCRIPTION
1	1	300363	24x24 ELEC. ENCLOSURE, REWKD
2	1	300099	30.5mm PUSH BUTTON
3	1	300100	30.5mm PUSH BUTTON, E-STOP
4	1	300109	E- STOP, NAMEPLATE
5	1	300138	NAME PLATE, RESET
6	1	300239	120V AC BUZZER
7	1	300240	PILOT LAMP HOLDER, AMBER
8	1	300241	LAMP FOR HOLDER (ABOVE)
9	2	300098	8-32 X 1/2" MACH. SCREWS
10	1	300357	30A Door Disconnect
11	1	300358	Disconnect Handle
12	1	300359	Disconnect Rod
13	1	300394	Rigid Belt, Main Elect Panel Assy, Spd Opt 230 V



Main Electrical Panel Layout, 230V, Speed Opt.



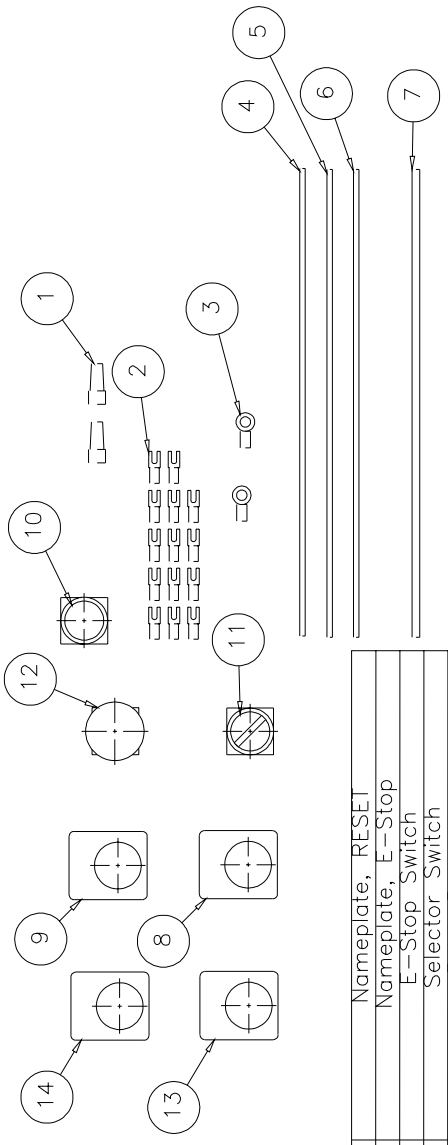
Electrical Assembly, 13 Ft. Extension



Item	Qty	Name	Description
1	1	300133	Nameplate, ON/OFF
2	1	15088	Namplate, Feeder
3	2	300099	Push Button
4	2	15026	Wire Nut, Yellow
5	14	15015-2	Terminal, Fork, #8 stud, 12-14 ga.
6	2	15016	Terminal, Ring .25 stud, 12-14 ga.
7	102	100042	Wire, 16 ga. TFFN, Red
8	22	300303	Wire, 16 ga. TFFN, Yellow
9	11	15280-W	Wire, 16 ga. TFFN, White
10	11	100049	Wire, 14 ga. THHN, Green
11	1	15087	Selector Switch
12	1	300100	E-Stop Switch
13	1	300109	Nameplate, E-Stop
14	1	300138	Nameplate, RESET

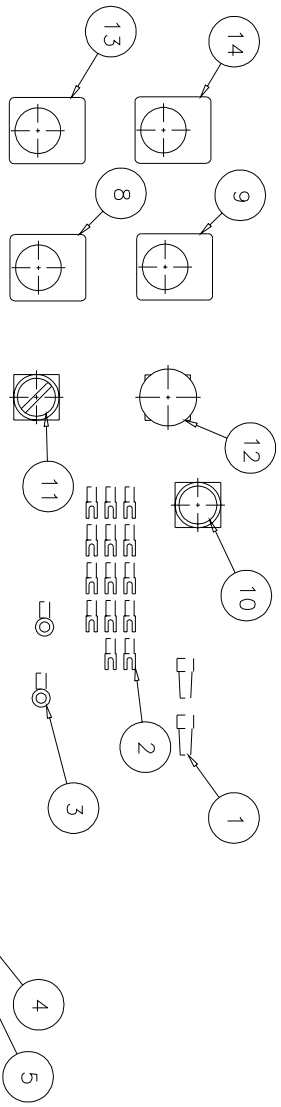
Electrical Assembly, - Extension

Electrical Assembly, 8 Ft. Extension



Item	Qty	Name	Description
			Electrical Assembly. – Extension
14	1	300138	Nameplate, RESET
13	1	300109	Nameplate, E–Stop
12	1	300100	E–Stop Switch
11	1	15087	Selector Switch
10	1	300099	Push Button
9	1	15088	Namplate, Feeder
8	1	300133	Nameplate, ON/OFF
7	7	100049	Wire, 14 ga. THHN, Green
6	7	15280–W	Wire, 16 ga. TFFN, White
5	14	300303	Wire, 16 ga. TFFN, Yellow
4	80	100042	Wire, 16 ga. TFFN, Red
3	2	15016	Terminal, Ring .25 stud, 12–14 ga.
2	14	15015–2	Terminal, Fork, #8 stud, 12–14 ga.
1	2	15026	Wire Nut, Yellow

Electrical Assembly, 5 Ft. Extension

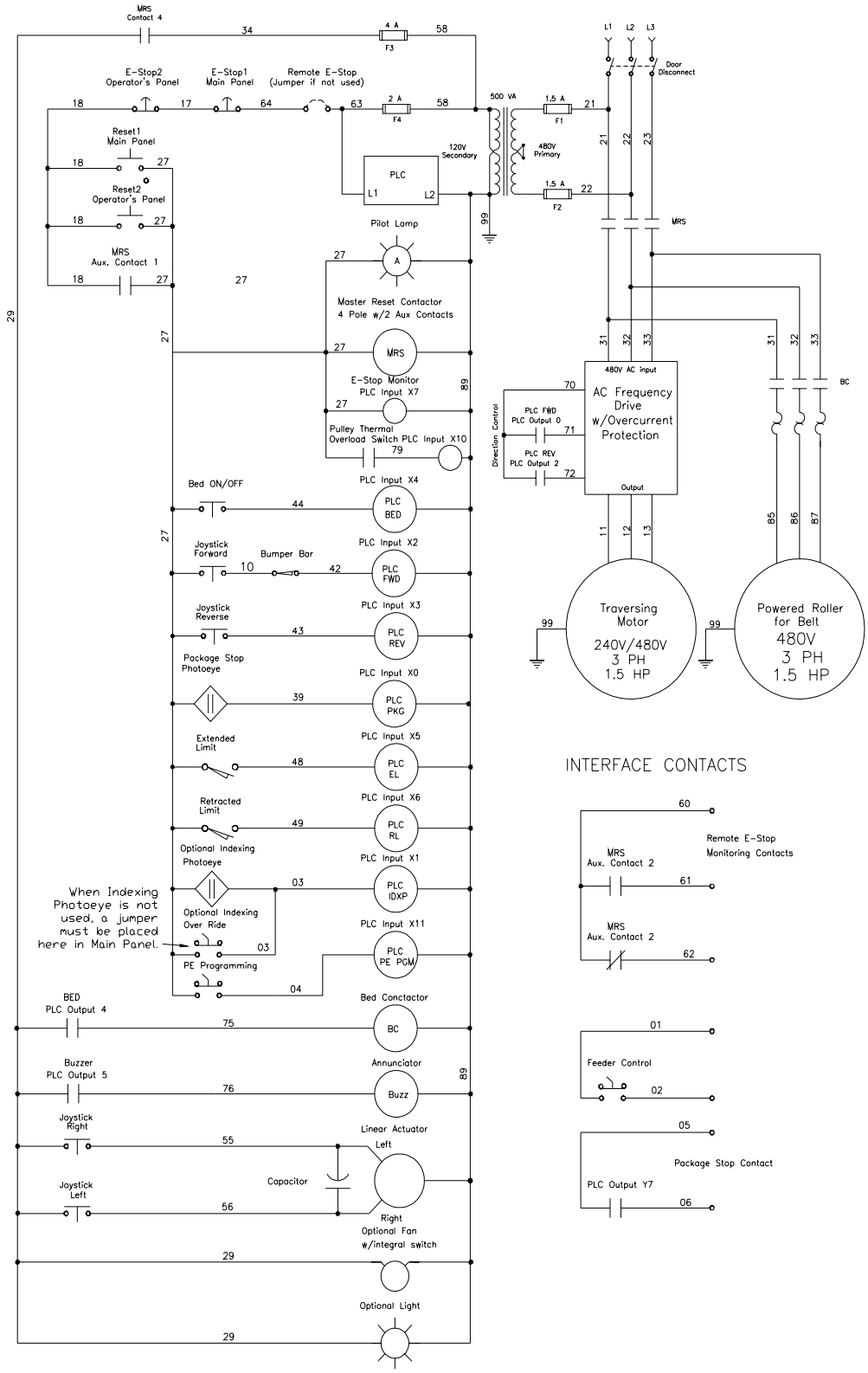


Item	Qty	Name	Description
14	1	300138	Nameplate, RESET
13	1	300109	Nameplate, E-Stop
12	1	300100	E-Stop Switch
11	1	15087	Selector Switch
10	1	300099	Push Button
9	1	15088	Nameplate, Feeder
8	1	300133	Nameplate, ON/OFF
7	5	100049	Wire, 14 ga. THHN, Green
6	5	15280-W	Wire, 16 ga. TFFN, White
5	10	300303	Wire, 16 ga. TFFN, Yellow
4	47	100042	Wire, 16 ga. TFFN, Red
3	2	15016	Terminal, Ring .25 stud, 12-14 ga.
2	14	15015-2	Terminal, Fork, #8 stud, 12-14 ga.
1	2	15026	Wire Nut, Yellow

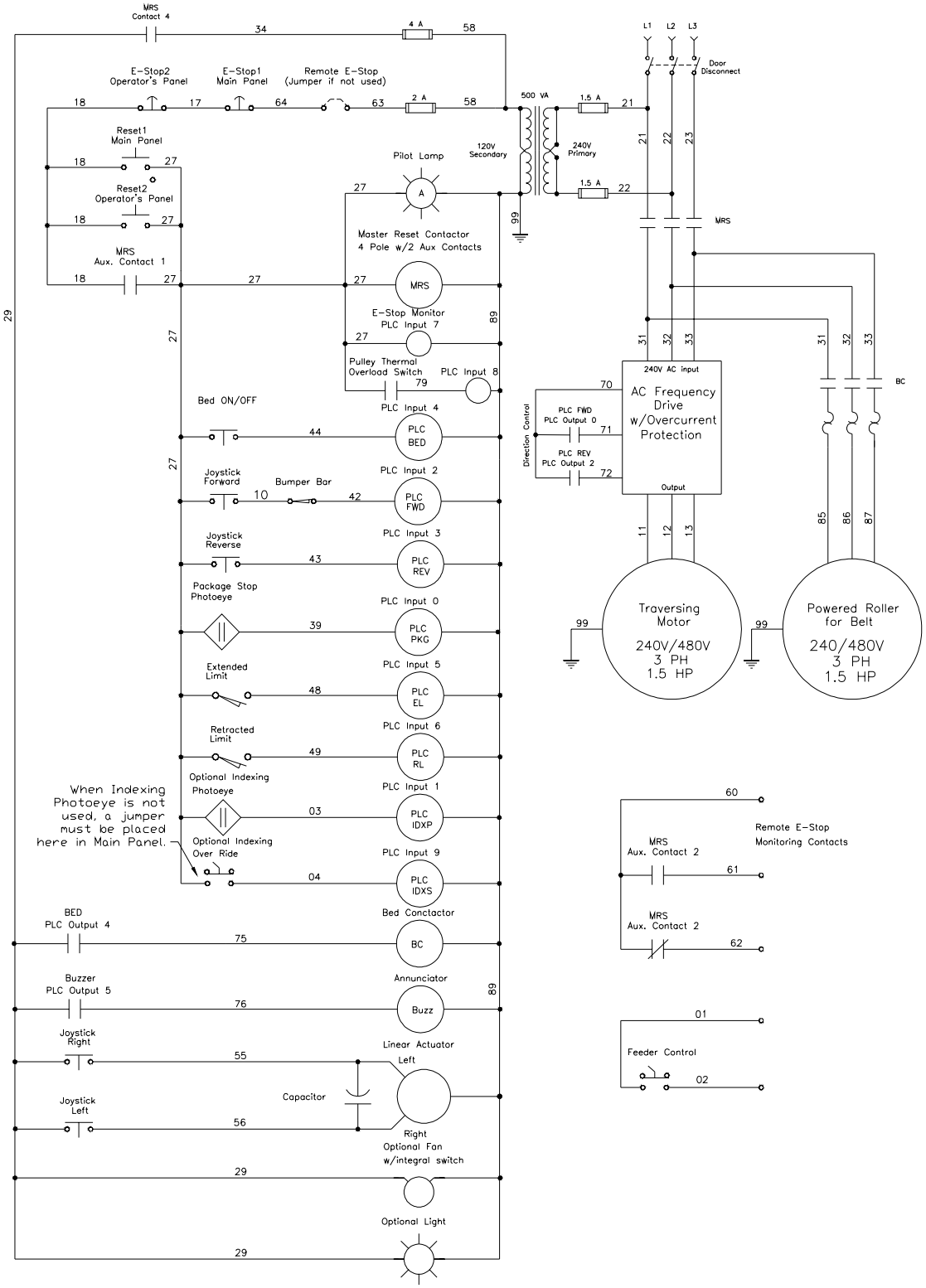
Electrical Assembly. - Extension

BestReach™ Rigid Belt Schematics and Wiring Diagrams

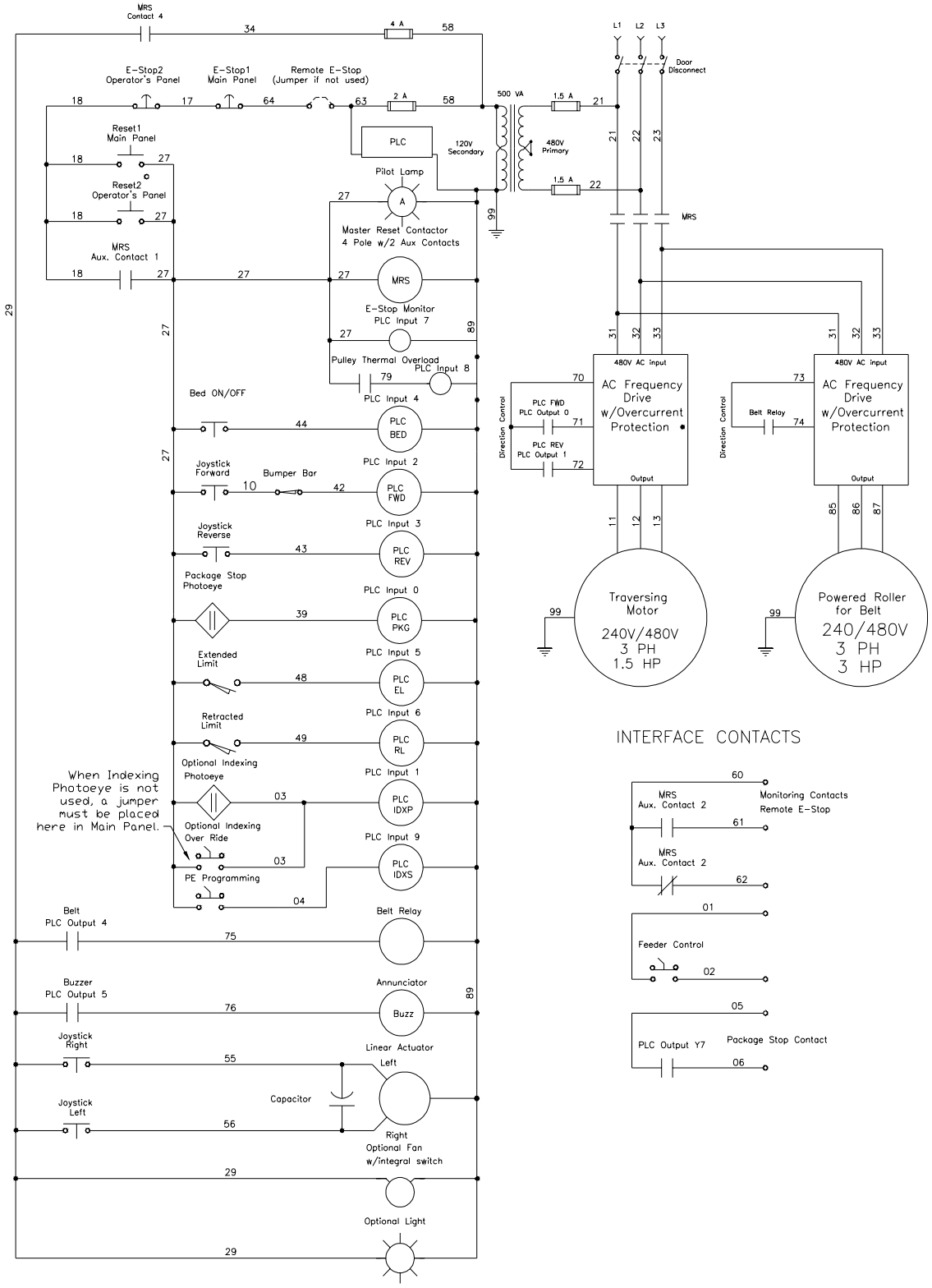
Rigid Belt Schematic, STD. 480V



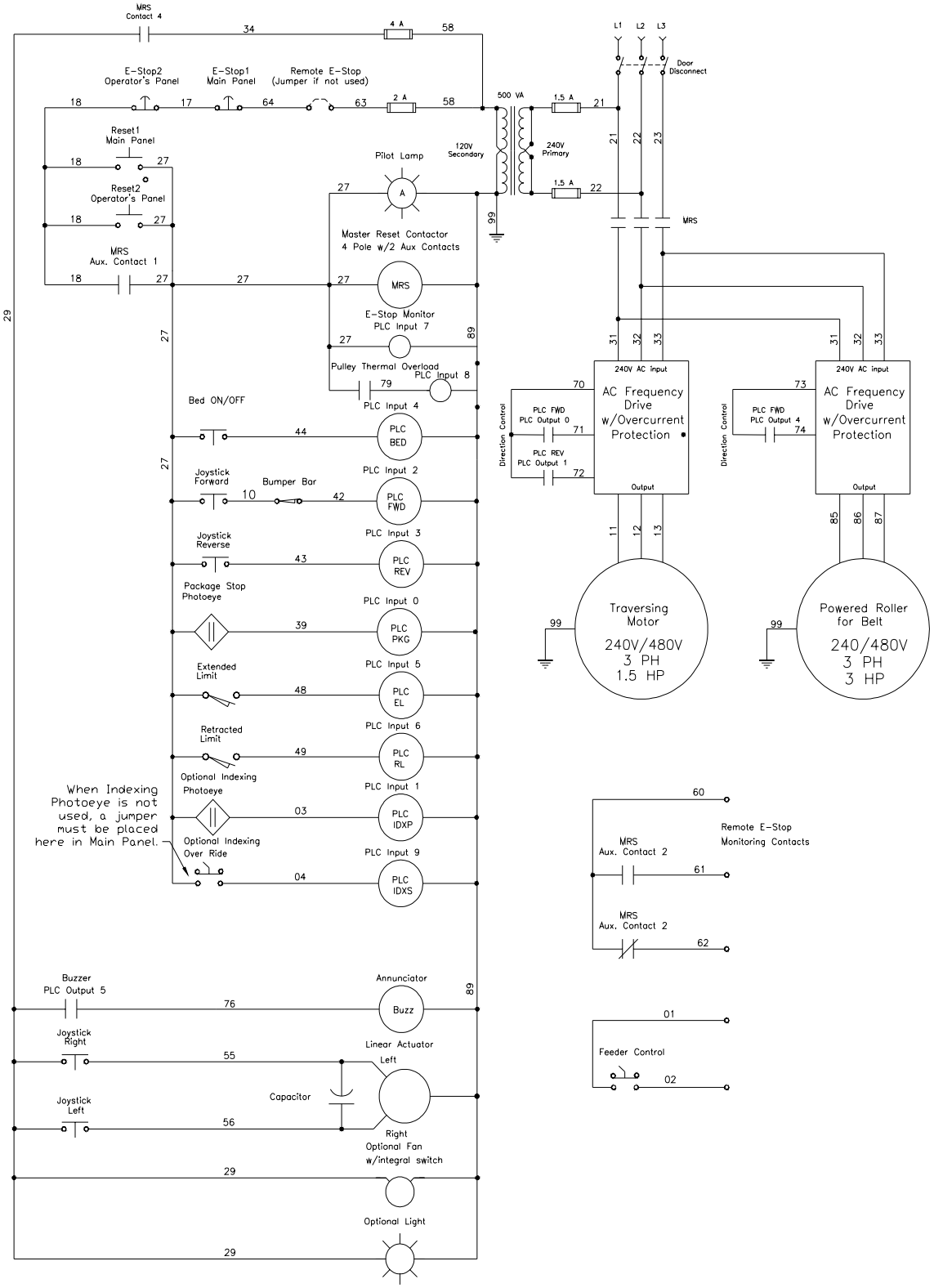
Rigid Belt Schematic, STD. 240V



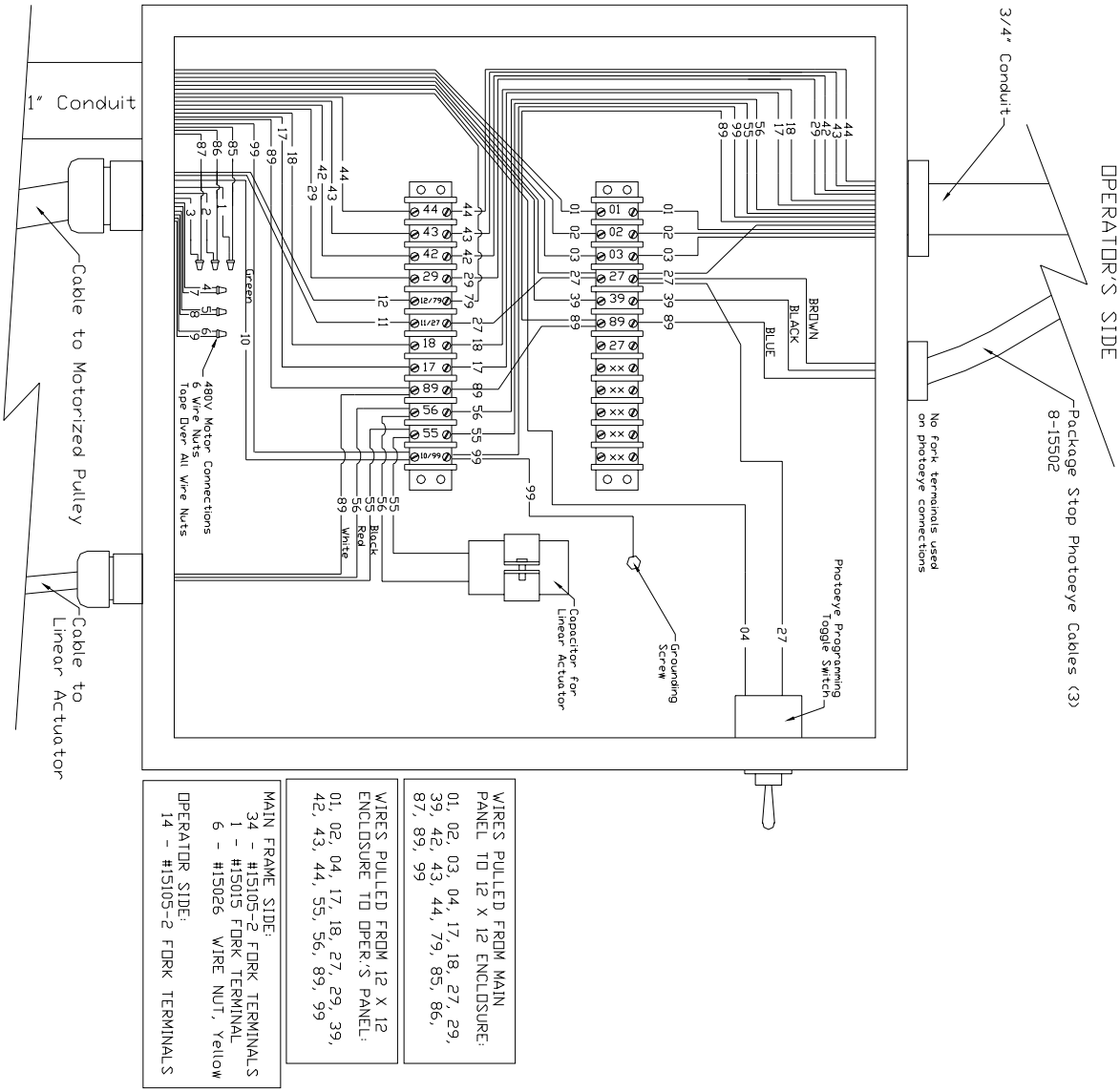
Rigid Belt Schematic, Opt. Speed, 480V



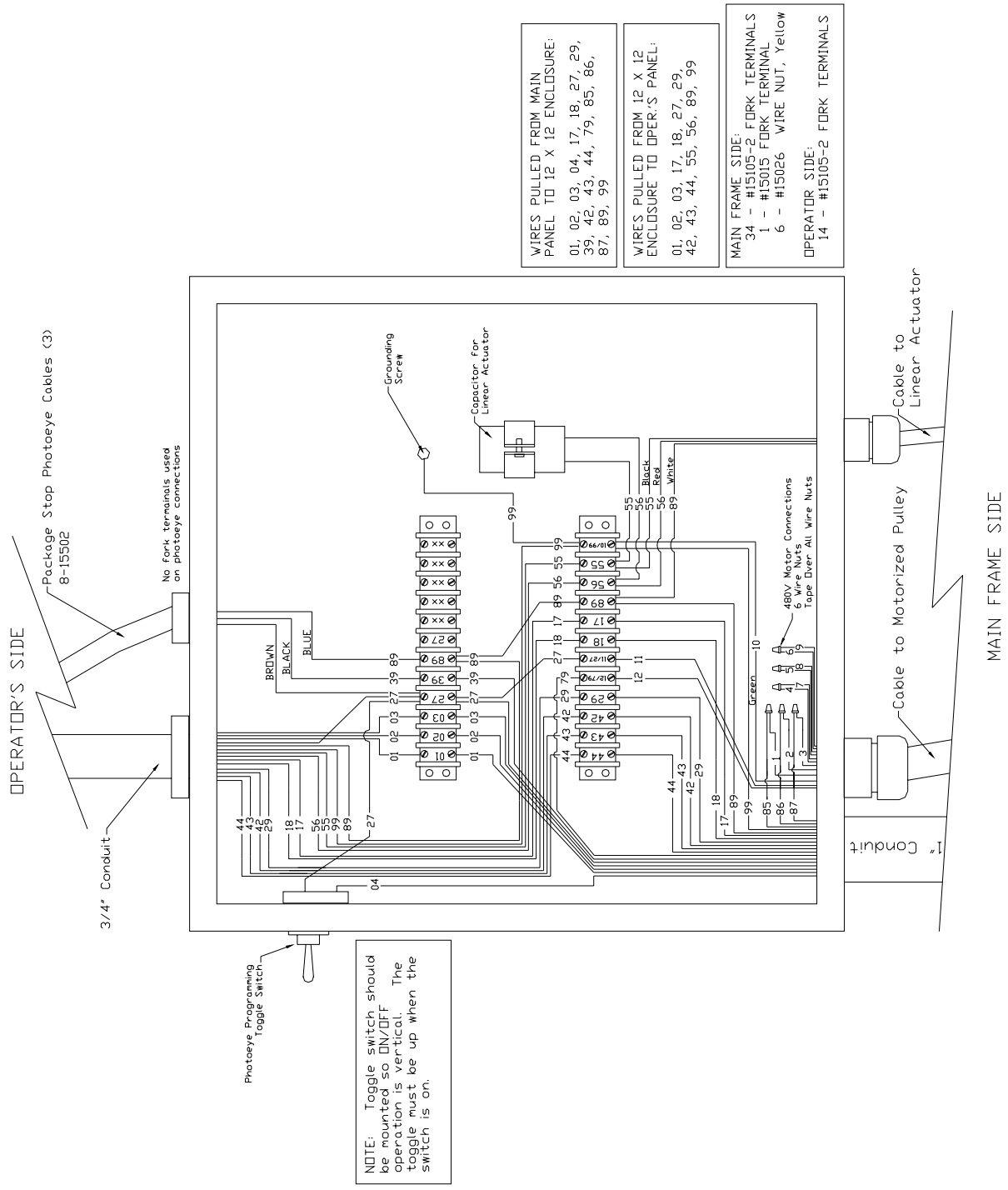
Rigid Belt Schematic, Opt. Speed, 240V



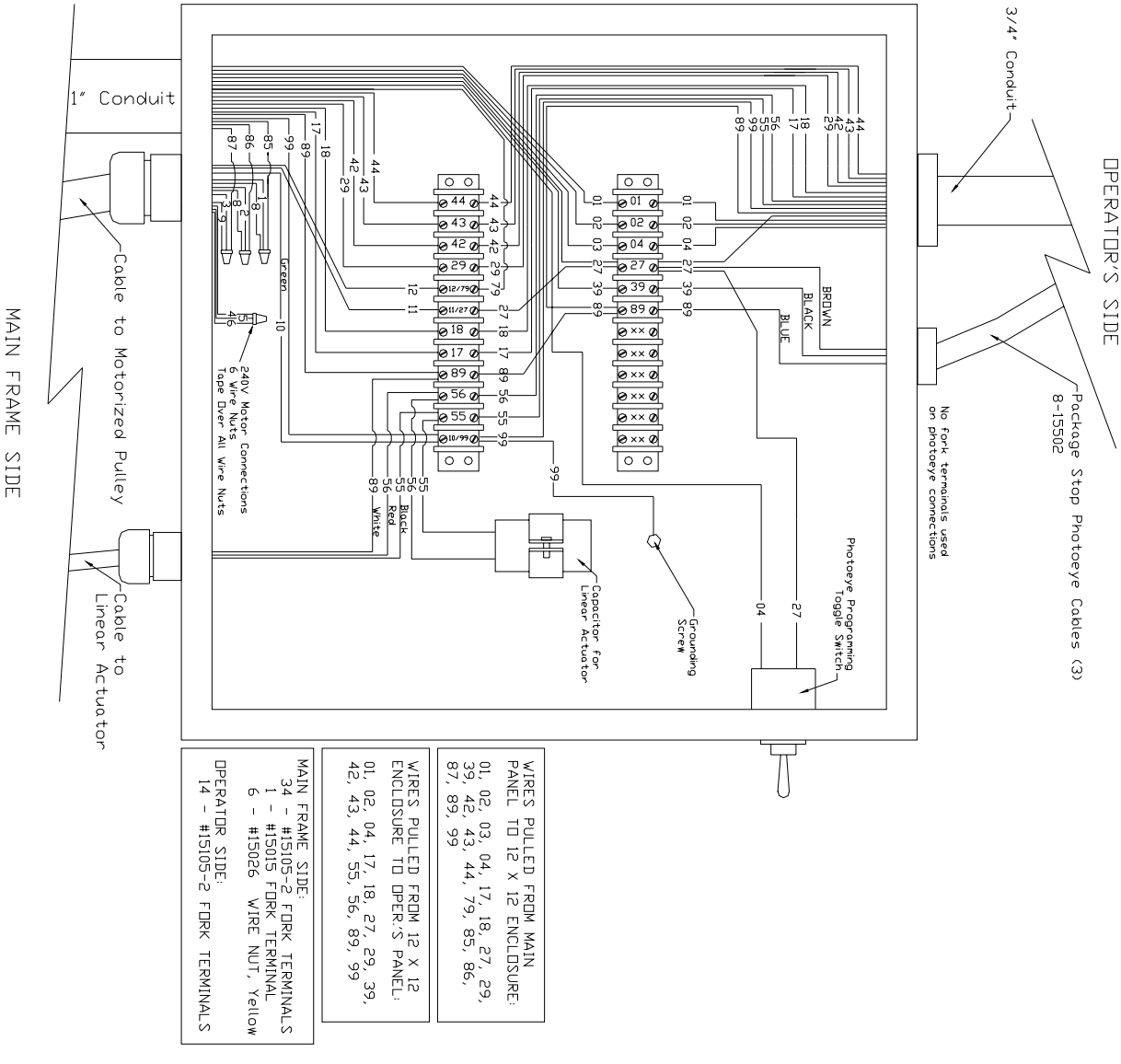
12 x 12 Enclosure Wire Connection, 480 Volts



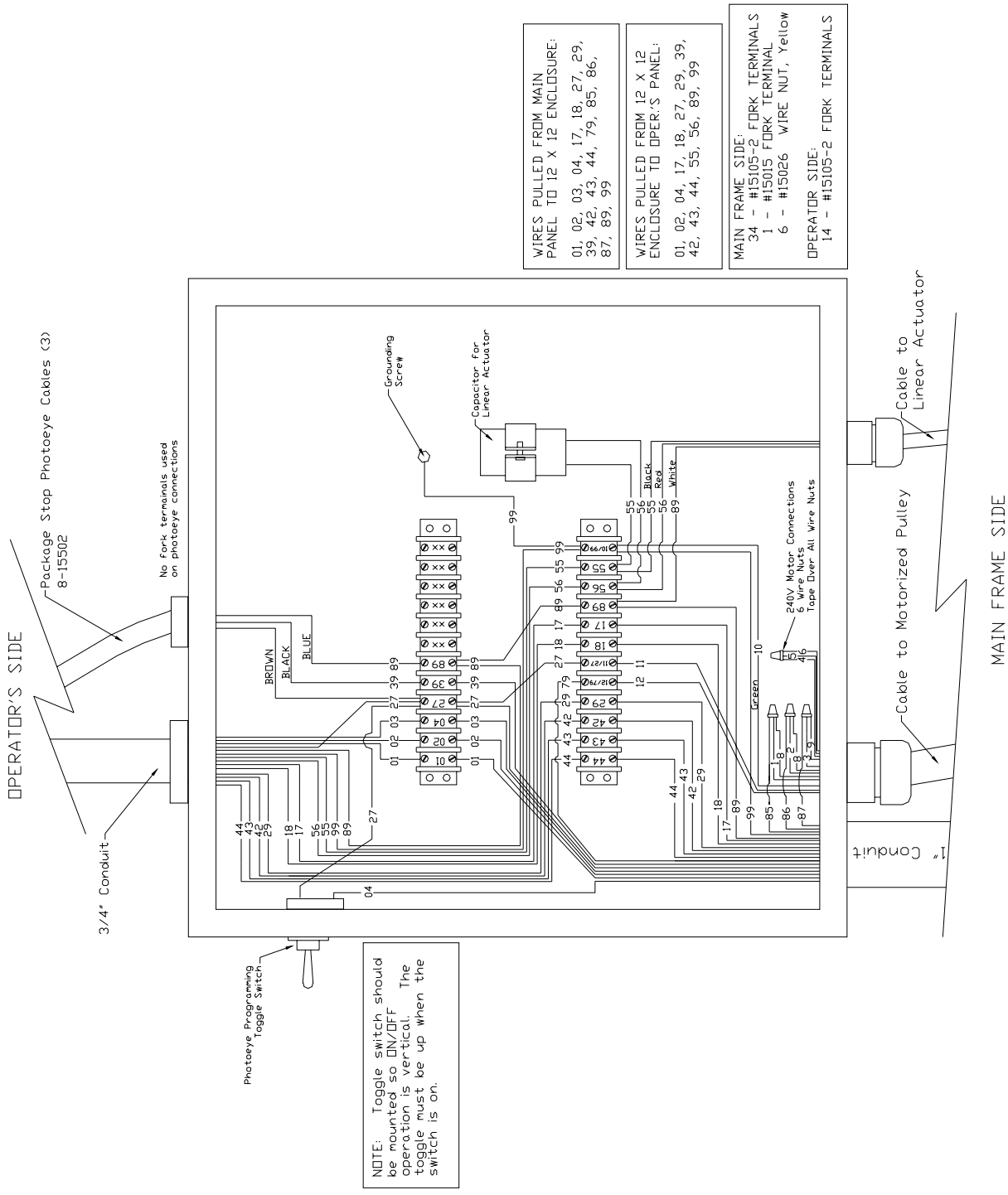
12 x 12 Enclosure Wire Connection, 480 Volts



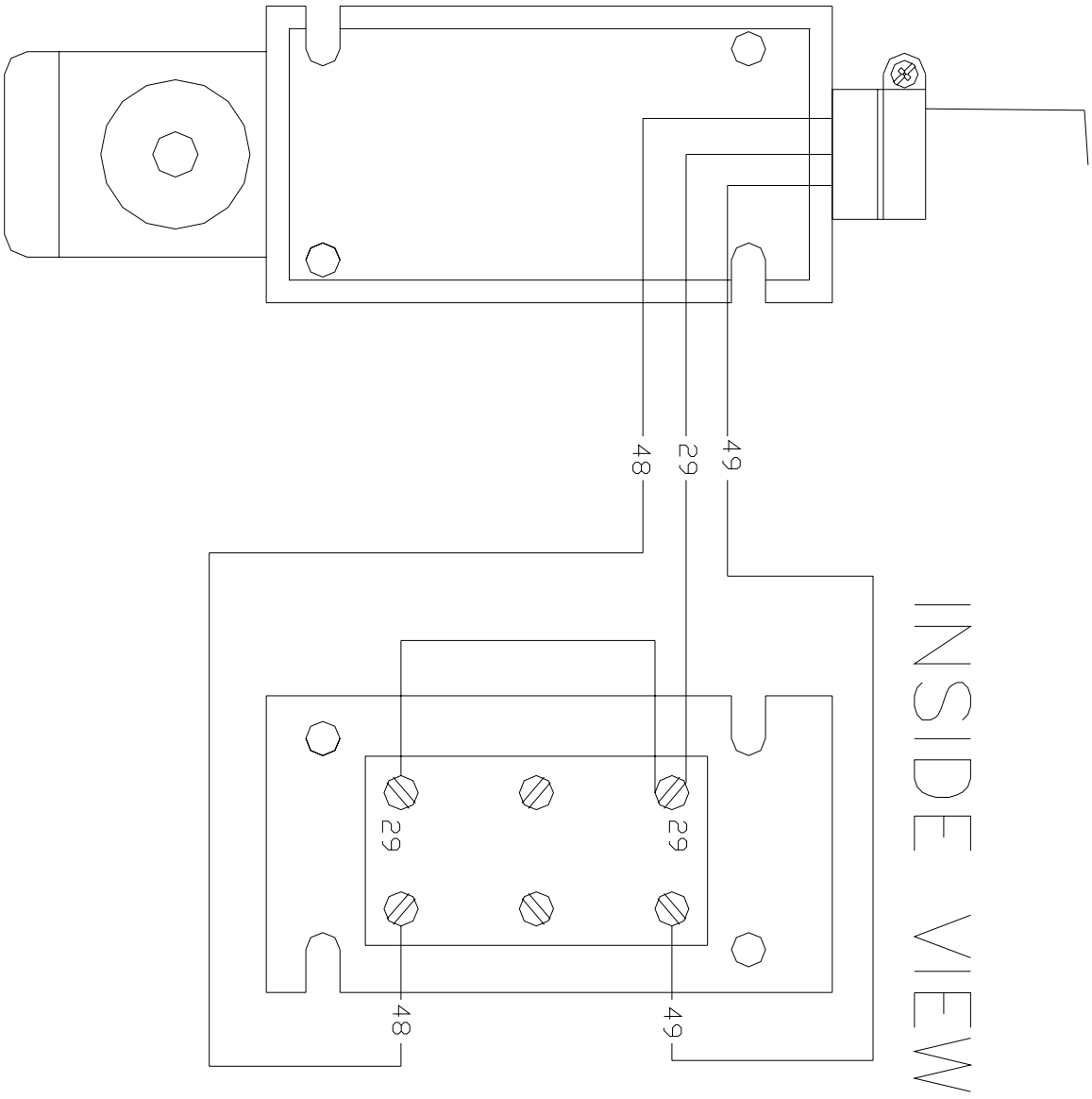
12 x 12 Enclosure Wire Connection, 240 Volts



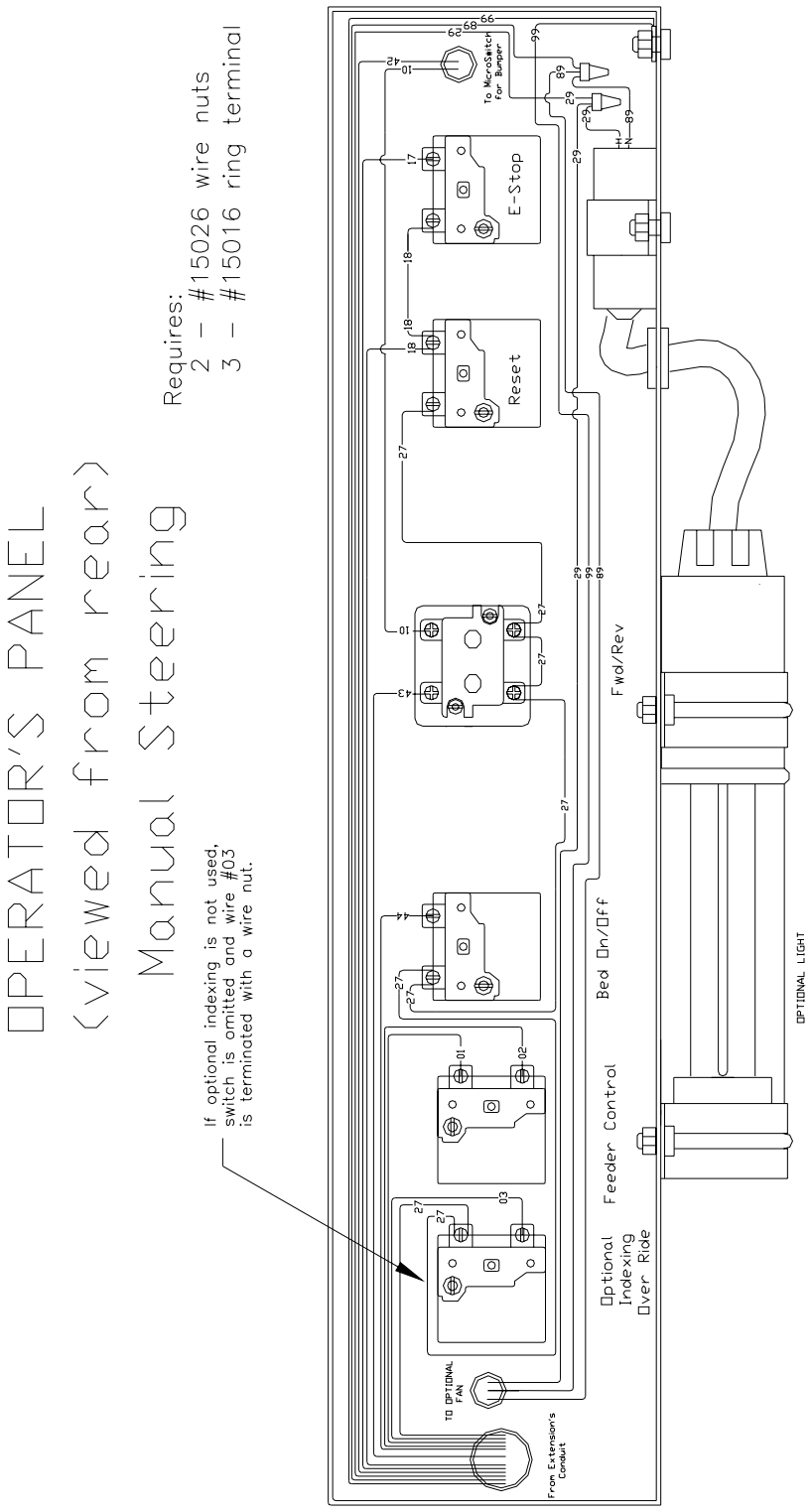
12 x 12 Enclosure Wire Connection, 240 Volts



Wiring Diagram Limit Switch



Wiring Diagram, Operators Panel, Std Steering

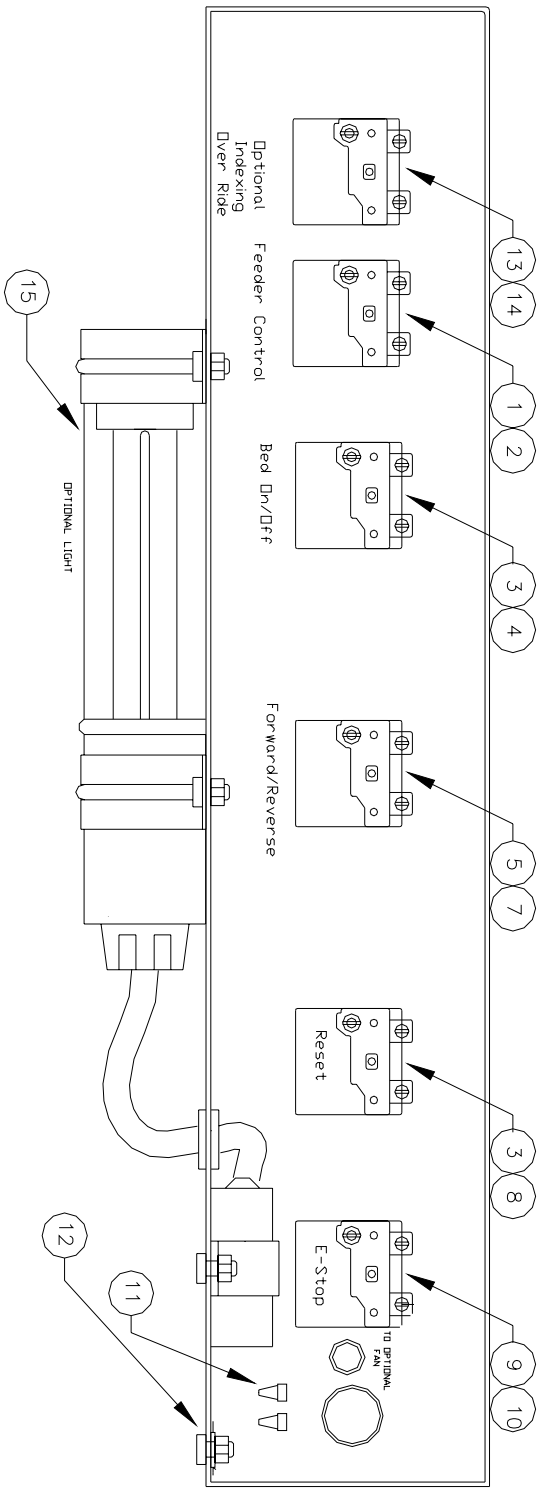


Operators Panel, Parts List, Std Steering

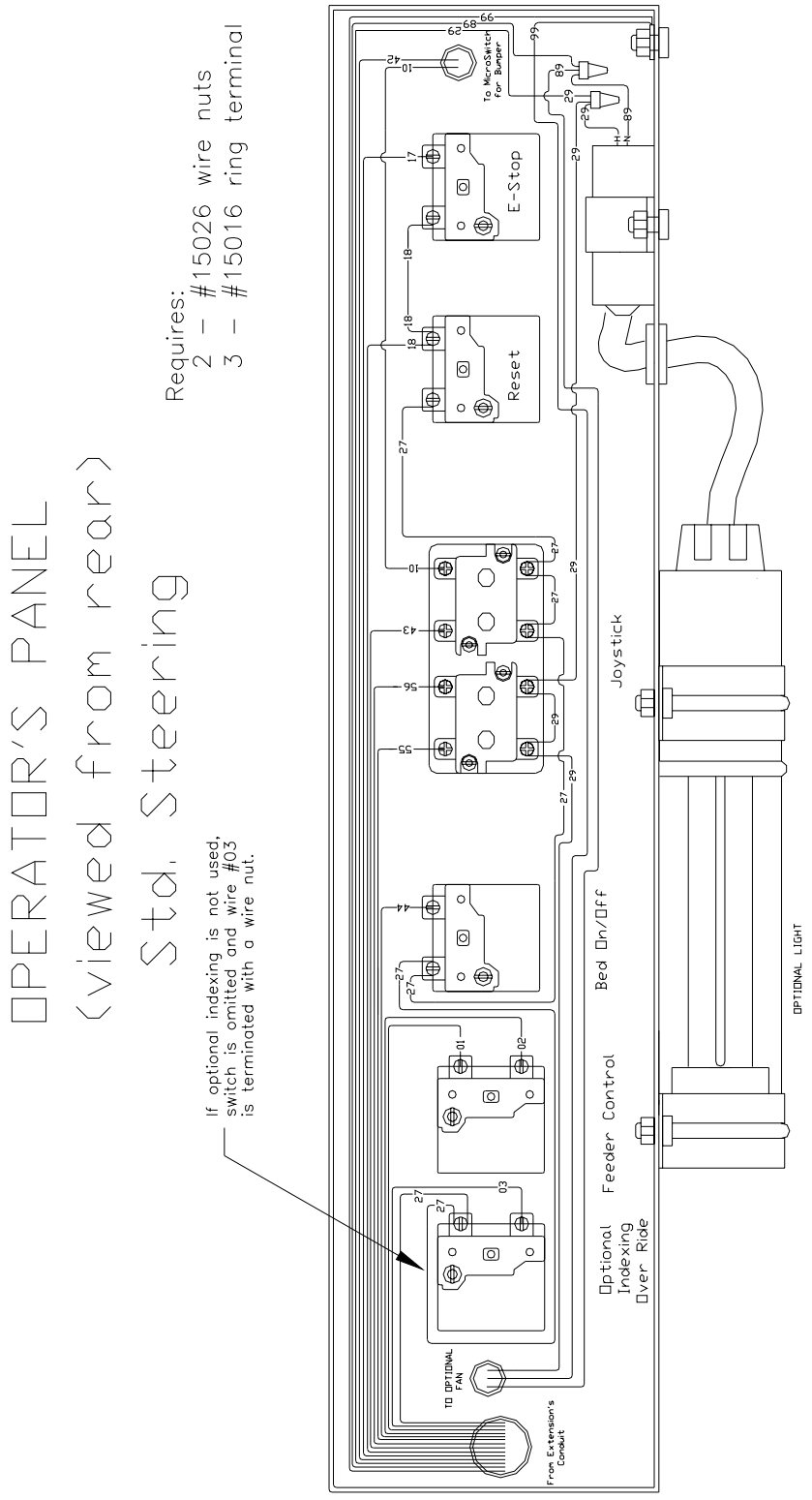
ITEM	QTY	PART NO	DESCRIPTION
1	1	15087	Selector Switch
2	1	15088	Nameplate, Feeder
3	2	300099	Push Button
4	1	300133	Nameplate, ON/OFF
5	1	300400	3 Position Selector Switch
6	2	300401	Contacts, N.O.
7	1	300402	Nameplate, Forward/Reverse
8	1	300138	Nameplate, Reset
9	1	300100	E-Stop Switch
10	1	300109	Nameplate, E-Stop
11	2	15026	Wire Nut, Yellow
12	3	15016	Ring Terminal
13	(1)	15087	Selector Switch (optional)
14	(1)	300399	Nameplate, Index over ride (optional)
15	(1)	800013	Light Kit (optional)

This B.O.M. is for all voltage and speed options that use the MANUAL STEERING option.

This B.O.M. does NOT apply to any unit with the standard power steering option.



Operators Panel, Wiring Diagram, Manual Steer

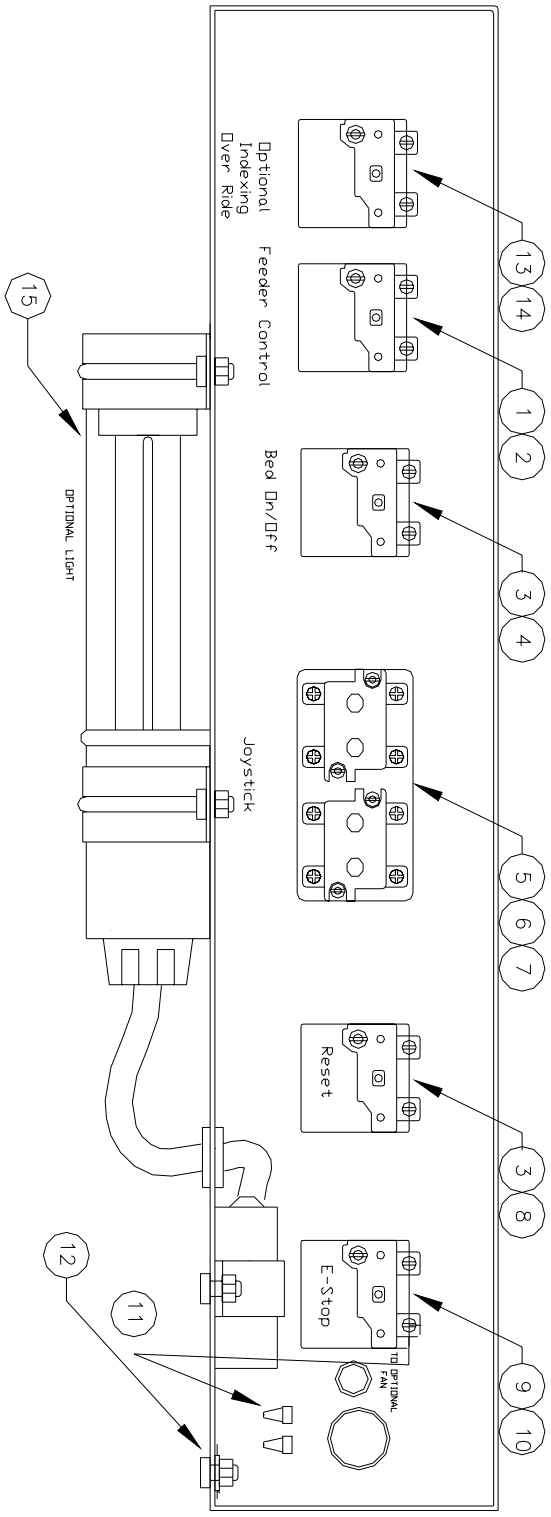


Operators Panel, Parts List, Manual Steering

ITEM	QTY	PART NO	DESCRIPTION
1	1	15087	Selector Switch
2	1	15088	Nameplate, Feeder
3	2	300099	Push Button
4	1	300133	Nameplate, ON/OFF
5	1	300145	Joystick
6	2	300146	Double Contacts
7	1	300147	Nameplate, Arrows
8	1	300138	Nameplate, Reset
9	1	300100	E-Stop Switch
10	1	300109	Nameplate, E-Stop
11	2	15026	Wire Nut, Yellow
12	3	15016	Ring Terminal
13	(1)	15087	Selector Switch (optional)
14	(1)	300399	Nameplate, Index over ride (optional)
15	(1)	800013	Light Kit (optional)

This B.O.M. is for all voltage and speed options that use the STANDARD POWER STEERING.

This B.O.M. does NOT apply to any unit with the manual steering option.



AC TECH FREQUENCY DRIVES

Frequency Drive for Traversing Motor

The Best Reach Belt's traversing motor uses a 2 HP AC Tech frequency drive, model SF420 for 480V systems and model SF220 for 230V systems, to provide a soft start, programmable accel and decel times and braking.

Control wiring used for this drive is the ALTERNATE TWO-WIRE START/STOP CONTROL found on page 20 of AC Tech's SCF Series manual. In order for the drive to function properly in this mode, **a jumper must be in place between the drive's TB-2 terminals 1 and 2.** Forward and Reverse is controlled by the Best Reach's PLC relay outputs wired to the drive's TB-2 terminals 2 (common), 12 (forward) and 13A (reverse).

The AC Tech drive is field programmable. The following list shows the parameters that are programmed before being shipped with the Best Reach unit. All parameters not shown in this list remain set to the factory defaults.

Parameter List for Traversing Motor

Parameter	Value
04	02
10	05
17	02
19	02
20	0.1
21	01
22	30
26	53

This frequency drive has built-in over current protection. If an over current fault occurs, the drive will shut off current to the motor and will display PF. While this error code is displayed, the conveyor cannot be driven. The frequency drive will reset itself after approximately 30 seconds. The conveyor can be drive after this reset time if the conditions that caused the fault have been removed.

Frequency Drive for Optional Belt Speed

The frequency drive used to power the motorized head pulley for this option is the same as the drive used for the traversing motor except that it has a 3 HP rating instead of the traversing's 2 HP.

Control wiring for this drive is the Two-Wire Start/Stop Control wiring found on page 19 of the AC Tech SCF Series Manual. Reversing is not used for the conveyor belt. Therefore, a jumper is used to select Forward only.

The parameters are different for this drive from the traversing drive's parameters. All parameters not listed here remain at the factory's default values.

Parameter List for Optional Speed Belt Drive

Parameter	Value
19	02
20	0.1
23	36.0
24	64.8
26	100
39	125

With these parameters, the belt speed in feet per minute will be displayed on the frequency drive's LED display when the belt is running. Belt speed may be adjusted by the up and down buttons on the frequency drive. For more information on the drive consult the AC Tech Manual supplied with you conveyor.

WARNING: *Voltage in the main electrical panel can cause injury or death. Viewing the frequency drive's display and adjusting the belt speed requires the main electrical panel door be open while power is applied. This should only be done by trained and qualified personnel with approval to work with live voltage. Follow all OSHA and other pertinent safety guidelines when servicing this conveyor.*

Troubleshooting the Electrical System

WHEN NOTHING WILL RUN
Check:

- Remote disconnect fuses and disconnect is turned on
- Conveyor's door disconnect is turned on
- E-Stops mushroom heads are out
- Master reset circuit is on (amber pilot light on main electrical panel should be on)
- Primary and secondary fuses for control transformer
- Supply power wiring

CONVEYOR BELT WILL NOT RUN

Check:

- Master reset circuit is on (amber pilot light on main electrical panel should be on)
- Bed On/Off contacts are making
- Wiring from Bed On/Off contacts to PLC input
- PLC output is making
- Wiring between PLC output and bed contactor coil
- Bed contactor's overload has tripped
- Bed contactor is making (check contacts and coil)
- Motorized pulley thermal overload. The motorized pulley has a normally closed internal thermal overload switch. This switch is wired as an input to the PLC. If the pulley over heats and the switch opens, the belt will shut off. If the Bed On/Off button is pushed while the thermal overload switch is open (or the wiring to the switch is broken or not connected) the belt will not start and the beeper will sound an error code of three beeps 2 seconds each separated by .5 seconds.
- Wiring between bed contactor and motorized pulley

Motorized pulley motor

Troubleshooting the Electrical System (cont)

CONVEYOR WILL NOT DRIVE FORWARD, BUT WILL DRIVE IN REVERSE
Check:

- Bumper is not returning fully forward
- Bumper switch is not making while bumper is fully forward
- Extend limit switch is not returning to neutral position (center position)
- Extend limit contacts in limit switch are closed (operator rod is on something or contacts are stuck)
- Wiring between Forward contact (joystick or selector switch) and bumper switch
- Wiring between bumper switch and PLC input

CONVEYOR WILL NOT DRIVE FORWARD OR REVERSE
Check:

- Jumper on AC frequency drive's terminals 1 and 2 (must be in place)
- AC frequency drive's common control wiring to Forward/Reverse contacts (joystick or selector switch)
- AC frequency drive has faulted out (overload faults, shown as PF, will reset themselves in approximately 30 seconds after no input to forward or reverse controls)
- Three phase power to AC frequency drive
- Output from AC frequency drive
- Traversing Motor
- Wiring from AC frequency drive to motor
- Parameters in AC frequency drive have changed from values shown in list

CONVEYOR WILL NOT STEER LEFT OR RIGHT (power steering models only)
Check:

- Power to joystick steering contacts, fuse in main electrical panel
- Power through joystick contacts when steering
- Power to linear actuator

Linear actuator capacitor