

Published Manual Number/ECN: MPICF40XAE/2019193A

- Publishing System: TPAS2
- Access date: 05/10/2019
- Document ECNs: Latest



Installation and Service

CF4010xx, CF4014xx, CF4016xx, CF4814xx



**Read the
separate
safety
manual
before
installing,
operating,
or servicing**

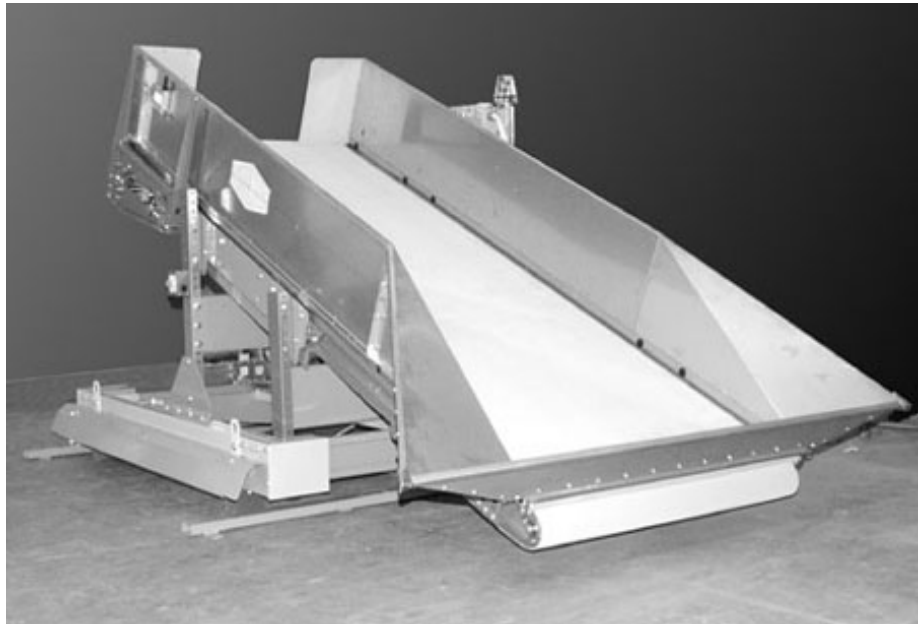


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PELLERIN MILNOR CORPORATION LIMITED STANDARD WARRANTY

We warrant to the original purchaser that MILNOR machines including electronic hardware/software (hereafter referred to as "equipment"), will be free from defects in material and workmanship for a period of one year from the date of shipment (unless the time period is specifically extended for certain parts pursuant to a specific MILNOR published extended warranty) from our factory with no operating hour limitation. This warranty is contingent upon the equipment being installed, operated and serviced as specified in the operating manual supplied with the equipment, and operated under normal conditions by competent operators.

Providing we receive written notification of a warranted defect within 30 days of its discovery, we will—at our option—repair or replace the defective part or parts, EX Factory (labor and freight specifically NOT included). We retain the right to require inspection of the parts claimed defective in our factory prior to repairing or replacing same. We will not be responsible, or in any way liable, for unauthorized repairs or service to our equipment, and this warranty shall be void if the equipment is tampered with, modified, or abused, used for purposes not intended in the design and construction of the machine, or is repaired or altered in any way without MILNOR's written consent.

Parts damaged by exposure to weather, to aggressive water, or to chemical attack are not covered by this warranty. For parts which require routine replacement due to normal wear—such as gaskets, contact points, brake and clutch linings, belts, hoses, and similar parts—the warranty time period is 90 days.

We reserve the right to make changes in the design and/or construction of our equipment (including purchased components) without obligation to change any equipment previously supplied.

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THE PROVISIONS ON THIS PAGE REPRESENT THE ONLY WARRANTY FROM MILNOR AND NO OTHER WARRANTY OR CONDITIONS, STATUTORY OR OTHERWISE, SHALL BE IMPLIED.

WE NEITHER ASSUME, NOR AUTHORIZE ANY EMPLOYEE OR OTHER PERSON TO ASSUME FOR US, ANY OTHER RESPONSIBILITY AND/OR LIABILITY IN CONNECTION WITH THE SALE OR FURNISHING OF OUR EQUIPMENT TO ANY BUYER.

BMP720097/19036

How to Get the Necessary Repair Components



This document uses Simplified Technical English.
Learn more at <http://www.asd-ste100.org>.

You can get components to repair your machine from the approved supplier where you got this machine. Your supplier will usually have the necessary components in stock. You can also get components from the Milnor® factory.

Tell the supplier the machine model and serial number and this data for each necessary component:

- The component number from this manual
- The component name if known
- The necessary quantity
- The necessary transportation requirements
- If the component is an electrical component, give the schematic number if known.
- If the component is a motor or an electrical control, give the nameplate data from the used component.

To write to the Milnor factory:

Pellerin Milnor Corporation
Post Office Box 400
Kenner, LA 70063-0400
UNITED STATES

Telephone: 504-467-2787
Fax: 504-469-9777
Email: parts@milnor.com

— End of BIUUUD19 —

Trademarks

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These words are trademarks of Pellerin Milnor Corporation and other entities:

Table 1 Trademarks

AutoSpot™	GreenTurn™	Milnor®	PulseFlow®
CBW®	GreenFlex™	MilMetrix®	PurePulse®
Drynet™	Hydro-cushion™	MilTouch™	Ram Command™
E-P Express®	Linear Costa Master™	MilTouch-EX™	RecircONE®
E-P OneTouch®	Linear Costo™	Miltrac™	RinSave®
E-P Plus®	Mentor®	MultiTrac™	SmoothCoil™
Gear Guardian®	Mildata®	PBW™	Staph Guard®

End of document: BNUUUU02

Safety—Shuttle

1. General Safety Requirements—Vital Information for Management Personnel [Document BIUUUS04]

Incorrect installation, neglected preventive maintenance, abuse, and/or improper repairs, or changes to the machine can cause unsafe operation and personal injuries, such as multiple fractures, amputations, or death. The owner or his selected representative (owner/user) is responsible for understanding and ensuring the proper operation and maintenance of the machine. The owner/user must familiarize himself with the contents of all machine instruction manuals. The owner/user should direct any questions about these instructions to a Milnor® dealer or the Milnor® Service department.

Most regulatory authorities (including OSHA in the USA and CE in Europe) hold the owner/user ultimately responsible for maintaining a safe working environment. Therefore, the owner/user must do or ensure the following:

- recognize all foreseeable safety hazards within his facility and take actions to protect his personnel, equipment, and facility;
- work equipment is suitable, properly adapted, can be used without risks to health or safety, and is adequately maintained;
- where specific hazards are likely to be involved, access to the equipment is restricted to those employees given the task of using it;
- only specifically designated workers carry out repairs, modifications, maintenance, or servicing;
- information, instruction, and training is provided;
- workers and/or their representatives are consulted.

Work equipment must comply with the requirements listed below. The owner/user must verify that installation and maintenance of equipment is performed in such a way as to support these requirements:

- control devices must be visible, identifiable, and marked; be located outside dangerous zones; and not give rise to a hazard due to unintentional operation;
- control systems must be safe and breakdown/damage must not result in danger;
- work equipment is to be stabilized;
- protection against rupture or disintegration of work equipment;
- guarding, to prevent access to danger zones or to stop movements of dangerous parts before the danger zones are reached. Guards to be robust; not give rise to any additional hazards; not be easily removed or rendered inoperative; situated at a sufficient distance from the danger zone; not restrict view of operating cycle; allow fitting, replacing, or maintenance by restricting access to relevant area and without removal of guard/protection device;
- suitable lighting for working and maintenance areas;
- maintenance to be possible when work equipment is shut down. If not possible, then protection measures to be carried out outside danger zones;
- work equipment must be appropriate for preventing the risk of fire or overheating; discharges of gas, dust, liquid, vapor, other substances; explosion of the equipment or substances in it.

- 1.1. **Laundry Facility**—Provide a supporting floor that is strong and rigid enough to support—with a reasonable safety factor and without undue or objectionable deflection—the weight of the fully loaded machine and the forces transmitted by it during operation. Provide sufficient clearance for machine movement. Provide any safety guards, fences, restraints, devices, and verbal and/or posted restrictions necessary to prevent personnel, machines, or other moving machinery from accessing the machine or its path. Provide adequate ventilation to carry away heat and vapors. Ensure service connections to installed machines meet local and national safety standards, especially regarding the electrical disconnect (see the National Electric Code). Prominently post safety information, including signs showing the source of electrical disconnect.



WARNING 1: Collision, Crushing and Pinch Hazards—Serious bodily injury or death can result to personnel in proximity to machinery/systems that traverse, elevate, extend, pivot, and/or tilt. The following mandatory minimum safety requirements must be installed with the machinery system: • Safety fence inclosing machine movement areas, • Lockable electrical interlocks on all gates, properly interfaced as shown on machine schematics, to disable machine movement when any gate is opened, • Signs to alert personnel to these hazards, placed prominently around the fenced area. Local codes may require additional precautions.

- 1.2. **Personnel**—Inform personnel about hazard avoidance and the importance of care and common sense. Provide personnel with the safety and operating instructions that apply to them. Verify that personnel use proper safety and operating procedures. Verify that personnel understand and abide by the warnings on the machine and precautions in the instruction manuals.
- 1.3. **Safety Devices**—Ensure that no one eliminates or disables any safety device on the machine or in the facility. Do not allow machine to be used with any missing guard, cover, panel or door. Service any failing or malfunctioning device before operating the machine.
- 1.4. **Hazard Information**—Important information on hazards is provided on the machine safety placards, in the Safety Guide, and throughout the other machine manuals. **Placards must be kept clean so that the information is not obscured. They must be replaced immediately if lost or damaged. The Safety Guide and other machine manuals must be available at all times to the appropriate personnel.** See the machine service manual for safety placard part numbers. Contact the Milnor Parts department for replacement placards or manuals.
- 1.5. **Maintenance**—Ensure the machine is inspected and serviced in accordance with the norms of good practice and with the preventive maintenance schedule. Replace belts, pulleys, brake shoes/disks, clutch plates/tires, rollers, seals, alignment guides, etc. before they are severely worn. Immediately investigate any evidence of impending failure and make needed repairs (e.g., cylinder, shell, or frame cracks; drive components such as motors, gear boxes, bearings, etc., whining, grinding, smoking, or becoming abnormally hot; bending or cracking of cylinder, shell, frame, etc.; leaking seals, hoses, valves, etc.) Do not permit service or maintenance by unqualified personnel.

2. **Safety Alert Messages—Internal Electrical and Mechanical Hazards** [Document BIUUUS11]

The following are instructions about hazards inside the machine and in electrical enclosures.



WARNING 2: Electrocution and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not unlock or open electric box doors.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Keep yourself and others off of machine.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.



WARNING [3]: Entangle and Crush Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

- Do not remove guards, covers, or panels.
- Do not reach into the machine housing or frame.
- Keep yourself and others off of machine.
- Know the location of all emergency stop switches, pull cords, and/or kick plates and use them in an emergency to stop machine motion.

3. Safety Alert Messages—External Mechanical Hazards [Document BIUUUS12]

The following are instructions about hazards around the front, sides, rear or top of the machine.



CAUTION [4]: Strike and Crush Hazards—A traveling machine such as a shuttle can strike, crush, or entrap you if you ride on it or enter its path. Traveling machines or their components can move automatically in any direction. Placing a system machine on line by energizing the machine control may immediately summon a shuttle or other traveling machine.

- Keep yourself and others off of machine.
- Keep yourself and others clear of movement areas and paths.
- Understand the consequences of placing a system machine on line.
- Know the location of all emergency stop switches, pull cords, and/or kick plates and use them in an emergency to stop machine motion.
- Know the location of the main machine disconnect and use it in an emergency to remove all electric power from the machine.



CAUTION [5]: Crush and Entrap Hazards—A traveling machine such as a shuttle can crush or entrap you if the bed or bucket descends while you are under it. The bed or bucket can descend with power off or on.

- Keep yourself and others clear of movement areas and paths.



WARNING [6]: Fall, Entangle, and Strike Hazards—Machine motion can cause you to fall or become entangled in or struck by nearby objects if you stand, walk, or ride on the machine. Shuttles and conveyor belts move automatically.

- Keep yourself and others off of machine.

4. Safety Alert Messages—Unsafe Conditions [Document BIUUUS14]

4.1. Damage and Malfunction Hazards

4.1.1. Hazards Resulting from Inoperative Safety Devices



WARNING 7: Multiple Hazards—Operating the machine with an inoperative safety device can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

- Do not tamper with or disable any safety device or operate the machine with a malfunctioning safety device. Request authorized service.



WARNING 8: Electrocutation and Electrical Burn Hazards—Electric box doors—Operating the machine with any electric box door unlocked can expose high voltage conductors inside the box.

- Do not unlock or open electric box doors.



WARNING 9: Entangle and Crush Hazards—Guards, covers, and panels—Operating the machine with any guard, cover, or panel removed exposes moving components.

- Do not remove guards, covers, or panels.

4.1.2. Hazards Resulting from Damaged Mechanical Devices



WARNING 10: Multiple Hazards—Operating a damaged machine can kill or injure personnel, further damage or destroy the machine, damage property, and/or void the warranty.

- Do not operate a damaged or malfunctioning machine. Request authorized service.



WARNING 11: Crush Hazards—Chain and hoist—A broken chain or a malfunctioning hoist can permit the belt/bucket assembly to fall or descend.

- Do not operate the machine with any evidence of damage or malfunction.

4.2. Careless Use Hazards

4.2.1. Careless Operation Hazards—Vital Information for Operator Personnel (see also operator hazards throughout manual)



WARNING 12: Multiple Hazards—Careless operator actions can kill or injure personnel, damage or destroy the machine, damage property, and/or void the warranty.

- Do not tamper with or disable any safety device or operate the machine with a malfunctioning safety device. Request authorized service.
- Do not operate a damaged or malfunctioning machine. Request authorized service.
- Do not attempt unauthorized servicing, repairs, or modification.
- Do not use the machine in any manner contrary to the factory instructions.
- Use the machine only for its customary and intended purpose.
- Understand the consequences of operating manually.



CAUTION 13: Goods Damage and Wasted Resources—Entering incorrect cake data causes improper processing, routing, and accounting of batches.

- Understand the consequences of entering cake data.



WARNING 14: Strike and Crush Hazards—Carelessly moving the machine with manual controls can cause it to strike, crush, entrap, or entangle personnel. You have total control of machine movement immediately after setting the Manual/Automatic switch to manual.

- Keep yourself and others clear of movement areas and paths.
- Understand the consequences of operating manually.

4.2.2. Careless Servicing Hazards—Vital Information for Service Personnel (see also service hazards throughout manuals)



WARNING 15: Electrocutation and Electrical Burn Hazards—Contact with electric power can kill or seriously injure you. Electric power is present inside the cabinetry unless the main machine power disconnect is off.

- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.
- Abide by the current OSHA lockout/tagout standard when lockout/tagout is called for in the service instructions. Outside the USA, abide by the OSHA standard in the absence of any other overriding standard.



WARNING 16: Entangle and Crush Hazards—Contact with moving components normally isolated by guards, covers, and panels, can entangle and crush your limbs. These components move automatically.

- Do not service the machine unless qualified and authorized. You must clearly understand the hazards and how to avoid them.
- Abide by the current OSHA lockout/tagout standard when lockout/tagout is called for in the service instructions. Outside the USA, abide by the OSHA standard in the absence of any other overriding standard.



WARNING 17: Crush and Entrap Hazards—A traveling machine such as a shuttle can crush or entrap you if the bed or bucket descends while you are under it. The bed or bucket can descend with power off or on.

- Secure both red safety pins in accordance with the instructions furnished, then lock out and tag out power at the main machine disconnect before working under bed or bucket.



WARNING 18: Strike and Crush Hazards—A traveling machine such as a shuttle can strike, crush, or entrap you if you ride on it or enter its path. Traveling machines or their components can move automatically in any direction. Placing a system machine on line by energizing the machine control may immediately summon a shuttle or other traveling machine.

- Lock out and tag out power to the traveling machine at the main machine disconnect if you must work in the path of the traveling machine.

— End of BIUUUS27 —

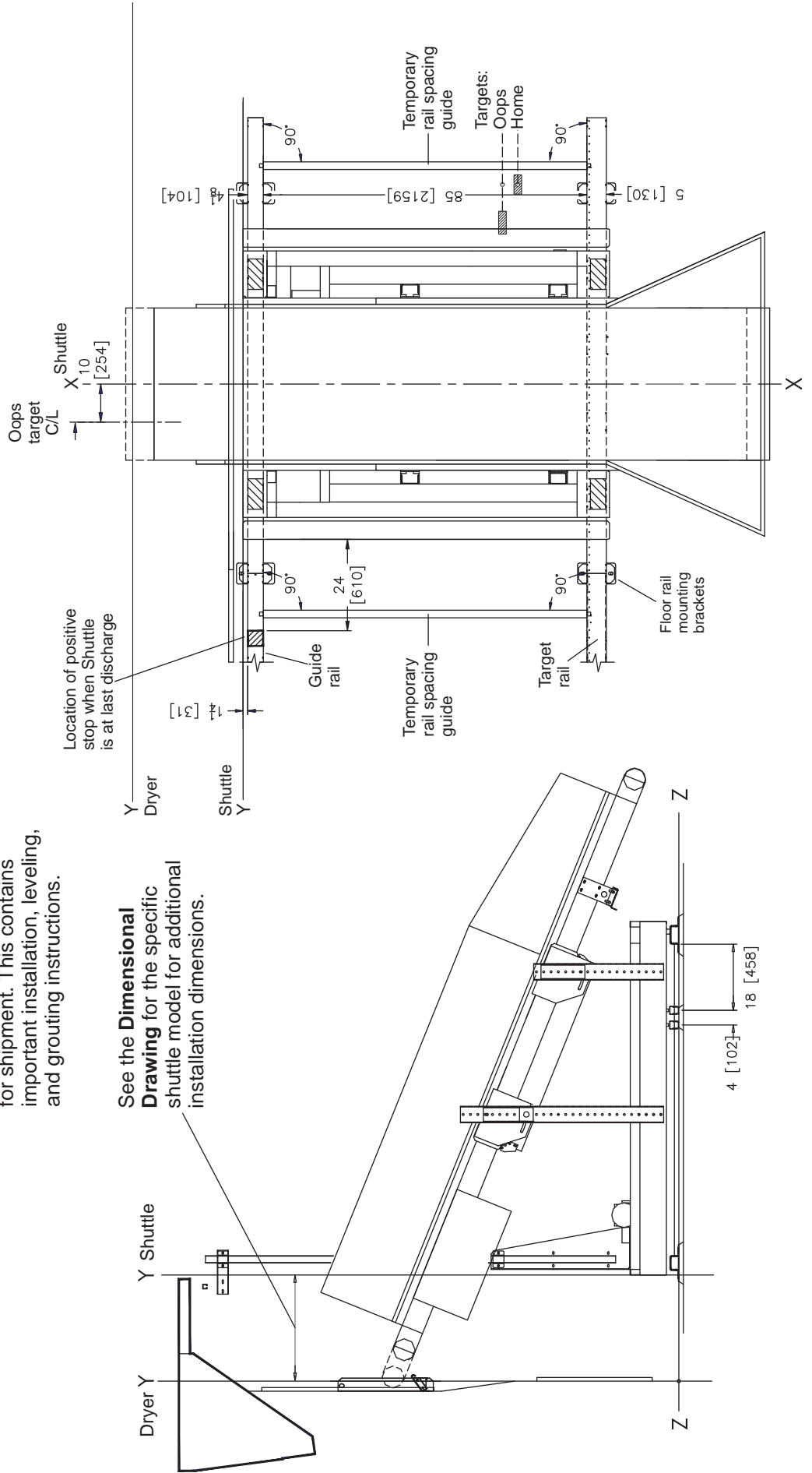
Installation

1

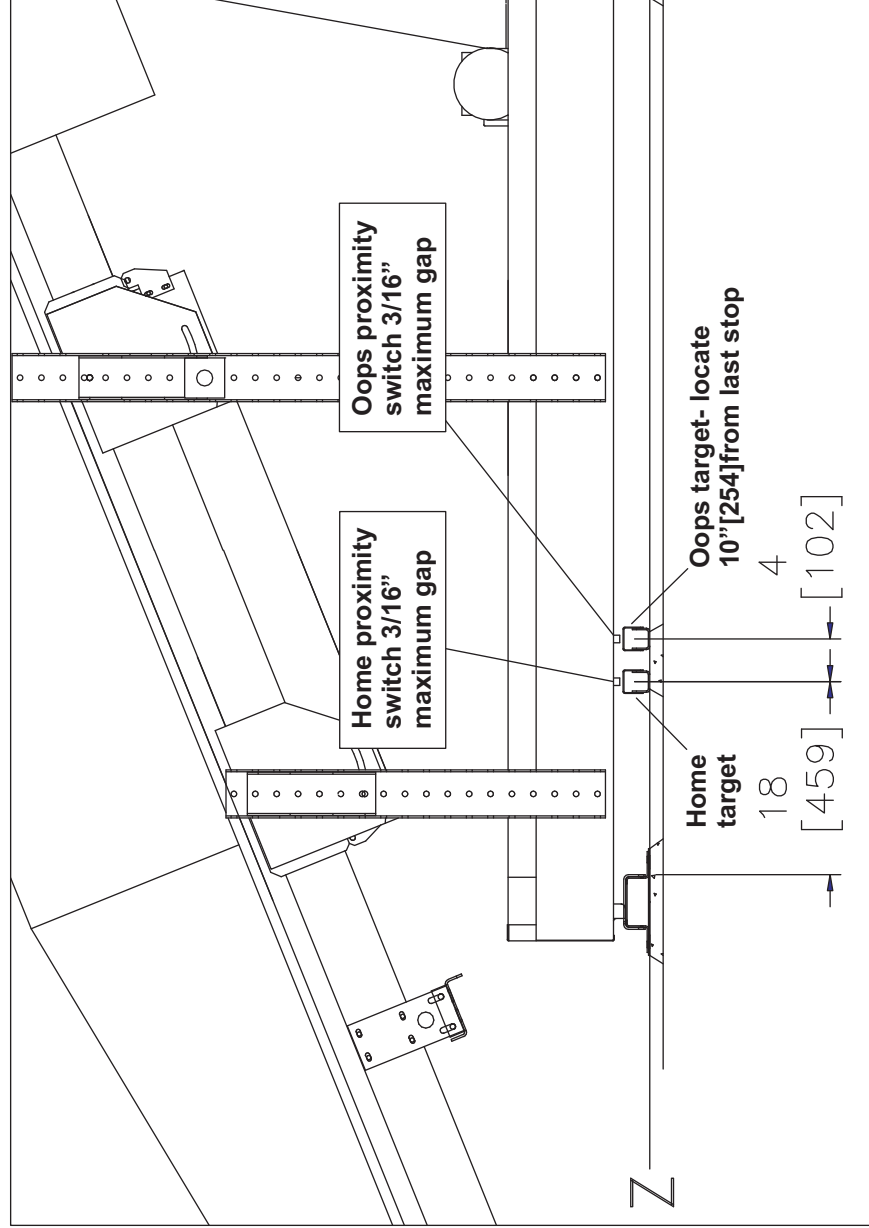
Rail Installation:
 Rail Placement

See “**Attention Installers!**” document in this manual and attached to shuttle for shipment. This contains important installation, leveling, and grouting instructions.

See the **Dimensional Drawing** for the specific shuttle model for additional installation dimensions.



Rail Installation:
 Switch &
 Target Settings



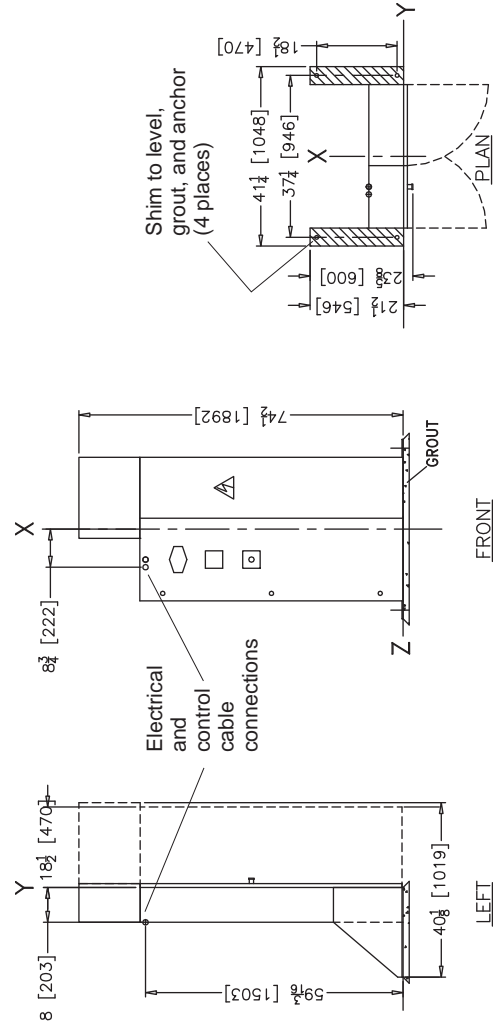
Switches & Targets

Installation:

Shuttle Control Box

See the **Dimensional Drawing** for the specific shuttle model for additional installation dimensions.

Controls for the Shuttle are contained in the remotely mounted Shuttle Control Box which must be placed in the equipment layout.

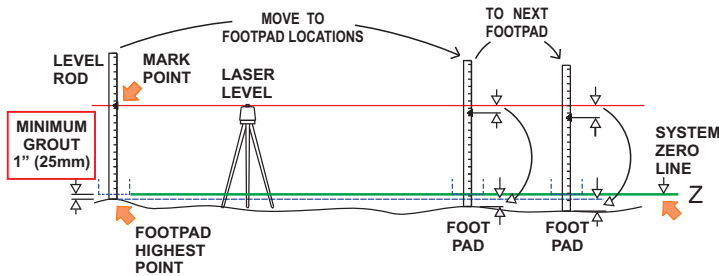


ATTENTION INSTALLERS!



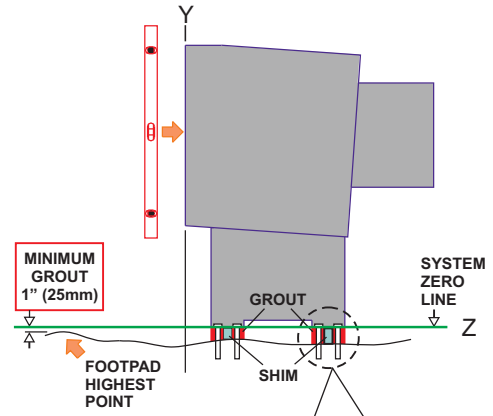
FLOOR IS UNEVEN

- Establish System Zero Line or Z.
- Find highest point in factory floor where footpads will be located.
- System Zero Line or Z is 1" above highest point.



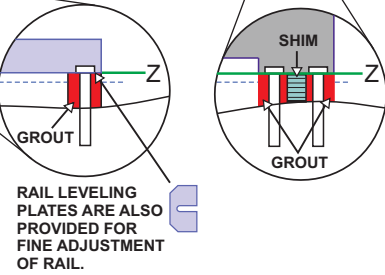
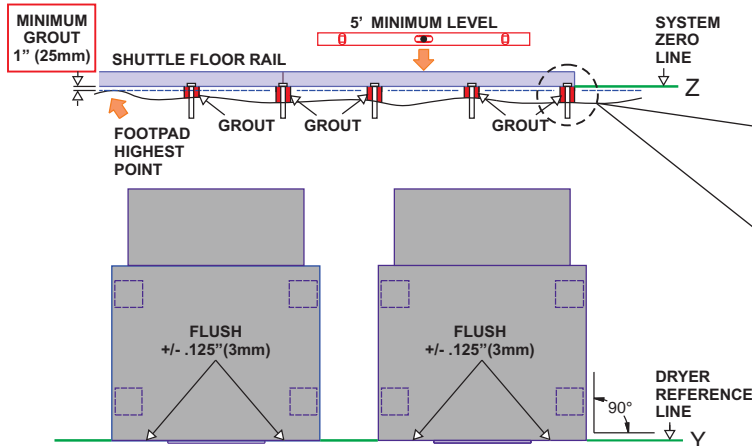
DRYER FEET MUST BE GROUTED

- Shim & level to System Zero Line or Z.
- Grout & anchor all brackets.

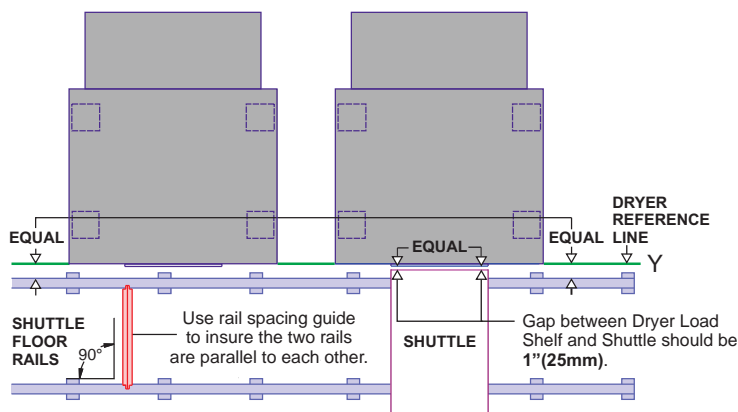


SHUTTLE RAIL BRACKETS MUST BE GROUTED TO Z

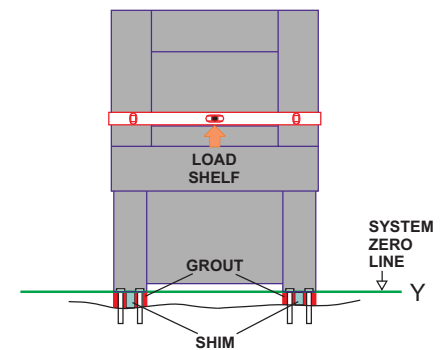
- Shim & level to System Zero Line or Z.
- Grout & anchor all brackets.



DRYER FACES MUST BE FLUSH



DRYER MUST BE LEVEL



SHUTTLE RAILS MUST BE PERFECTLY PARALLEL TO DRYER FACES

- Floor rails must be parallel, level, and square along entire length of rail.

Installation of the Laser Positioner for Traversing Shuttles

NOTICE P1: "Remove power from the machine" means use the necessary safety procedure for your location. In the USA, this is the OSHA lockout/tagout (LOTO) procedure. More local requirements can also apply.

Milnor traversing shuttles manufactured after December 2010 are provided with a laser system to control shuttle travel along the rail (traverse) and the positions at which the shuttle stops. An older shuttle can be retrofitted with this system if it meets the following criteria:

- The system has, or is upgraded to Dryer/Shuttle controller (Drynet) software version 21010 or later and shuttle software with a matching date code.
- The shuttle has, or is upgraded to the microprocessor board with part number 08BSPE2T (2004 to current). The 08BSPE1T (circa 2000) and 08BSPET (circa 1994) will not work.
- The shuttle manual controls are housed in a stationary cabinet, not a shuttle-mounted box.

The laser positioner replaces the switches, targets, and mounting hardware previously used for this purpose. The laser positioner system uses the Banner L-Gage LT7 Laser.

1. Hardware Installation



WARNING 1: Strike and Crush Hazards—A traveling machine such as a shuttle can strike, crush, or entrap you if you ride on it or enter its path. Traveling machines or their components can move automatically in any direction. Placing a system machine on line by energizing the machine control may immediately summon a shuttle or other traveling machine.

- Except where specified in this instruction, remove power from the machine to work in or near the shuttle path.

The laser beam must be parallel with the axis of shuttle travel. Typically the laser and target are mounted approximately 7 feet (1.8 meters) above the floor and horizontally centered on the shuttle frame, but this can be modified to suit the individual circumstances. The beam must be unobstructed at all times. Locate the hardware with respect to the shuttle as follows:

Stationary laser support post—in proximity to the stationary shuttle control cabinet.

Reflector—on the shuttle frame. Detailed mounting instructions follow.

Install the hardware as shown in the figures below. It is necessary to install the laser on the support post but not anchor the post until the laser is aligned with the target.



CAUTION 2: Risk of Costly Damage—Until the laser support post is anchored, it can fall if it or the cable is hit by an object such as a fork lift. This will likely destroy the laser.

- Use care to keep clear of the post except to intentionally reposition it during alignment.
- Route the cable away from any interference and secure it.

Figure 1: Laser to Post

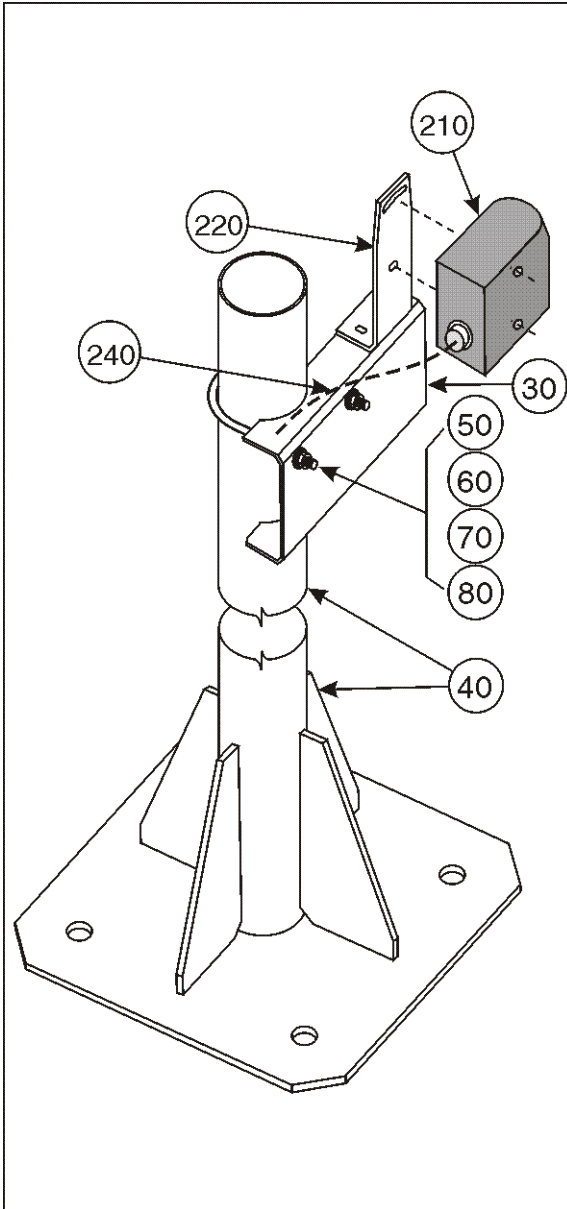


Figure 2: Reflector to Shuttle (Tube or J-rail frame)

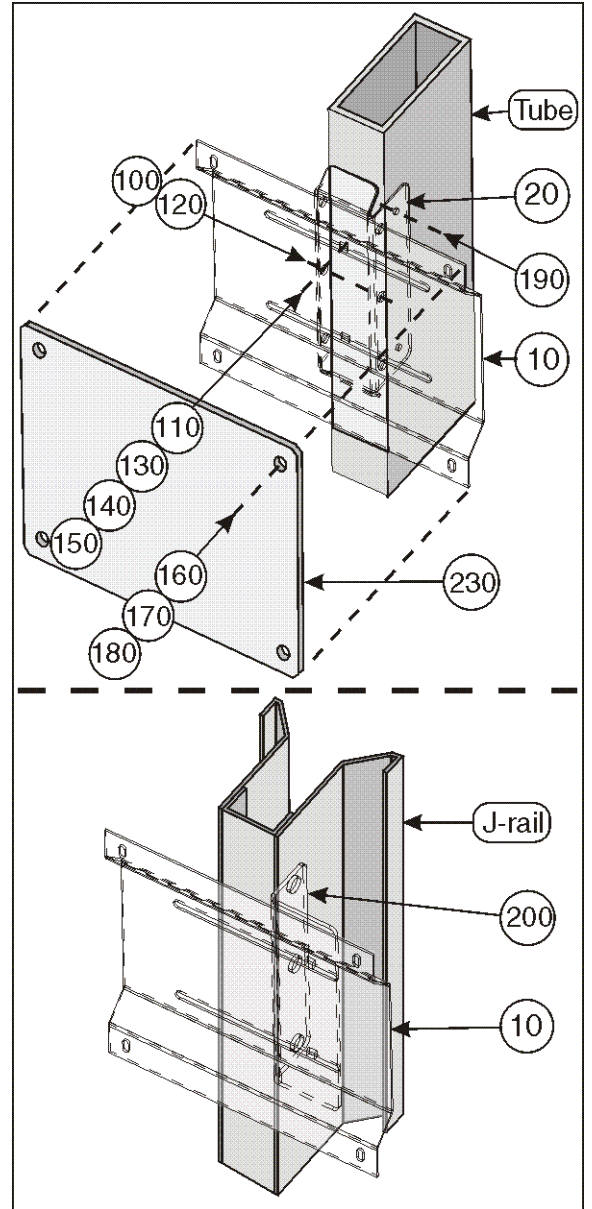


Table 1: Parts List for Figure 1 and Figure 2

Find the assembly for your machine and the letter shown in the "Item" column. The components for your machine will show this letter or the word "all" in the "Used In" column. The numbers shown in the "Item" column are those shown in the illustrations.				
Used In	Item	Part Number	Description/Nomenclature	Comments
Assemblies				
all	A	ALC420223	All mounting hardware except laser manufacturer components.	
Components				
A	10	04 24176	LASER TARGET FRAME	
A	20	04 24177	LASER TARGET TUBE RAIL MTG	Use with tubing type vertical frame member.
A	30	04 24146	LASER MTG CHANNEL	
A	40	W4 24180	LASER MOUNTING POST WLMT	
A	50	27A035C	U-BOLT 3/8-16X5.36 #0127316	
A	60	15U246	FLATWASHER 1"ODX25/64IDX1/8"30	
A	70	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
A	80	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
A	100	15A002A	CARBOLT 1/4-20UNC2X3/4 ZINC GR	
A	110	15K046	HXCAPSCR 1/4-20 UNC2A X 2"GR5	
A	120	17N058	HEXRIVNUT 1/4-20 UNC-2B #2520-	
A	130	15U185	FLATWASHER(USS STD) 1/4" ZNC P	
A	140	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
A	150	15G178	1/4"-20 HEXFLANGE NUT ZINC	
A	160	15N125	RDMACSCR 10-24UNC2AX1/2 ZC GR2	
A	170	15U135	FLATWASH#10 .4370DX.203IDX.04T	
A	180	15G126SZ	HXLOCKNUT 10-24 UNC STL/ZNC	
A	190	15P011	TRDCUT-F PANHD 10-24X1/2 NIKST	
A	200	04 24178	LASER TARGET J-RAIL MTG	Use with J-rail vertical frame member.
all	210	09RLE0001	Banner L-Gage LT7 Laser and mounting bracket	
all	220	09RLE0001B	Mounting Bracket and included fasteners	
all	230	09RLE0001R	50 meter Retro Reflector	
all	240	09RLE0001C	Multi-conductor cable and connector—30 foot (7.6 meters) length	
	Tube	--	A type of frame used on certain shuttles	
	J-rail	--	A type of frame used on certain shuttles	

2. Electrical Connections

The electrical cable provided with this system has a pre-wired connector on one end that attaches to the laser. Shuttles manufactured after February 2011 have the control box end of the cable pre-wired also. The cable is secured to the control box. If the shuttle was not provided with the cable pre-wired, make connections as explained below. **Do not connect the cable to the laser until the wiring in the electric cabinet is completed.**

1. Determine the best route for the cable. Ensure that:

- objects cannot strike the cable,
- there is sufficient slack on each end to reach the connection points.

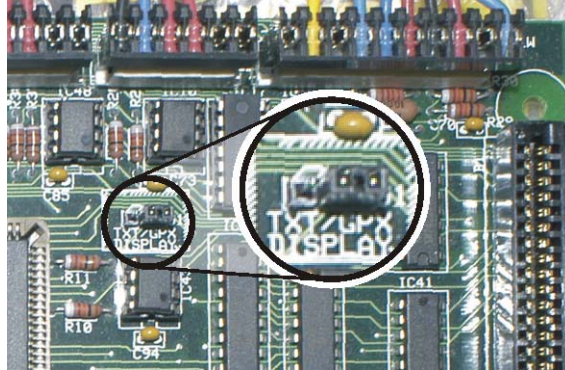
Installation of the Laser Positioner for Traversing Shuttles

2. Route the cable and secure the center portion to protect against accidental movement. If not pre-wired, route the cable into the shuttle processor box through the hole in the box shown in [Figure 3](#).
3. Set jumper J1 on the shuttle processor board to the GPX position as shown in [Figure 4](#).

Figure 3: Hole in Shuttle Processor Box for Cable

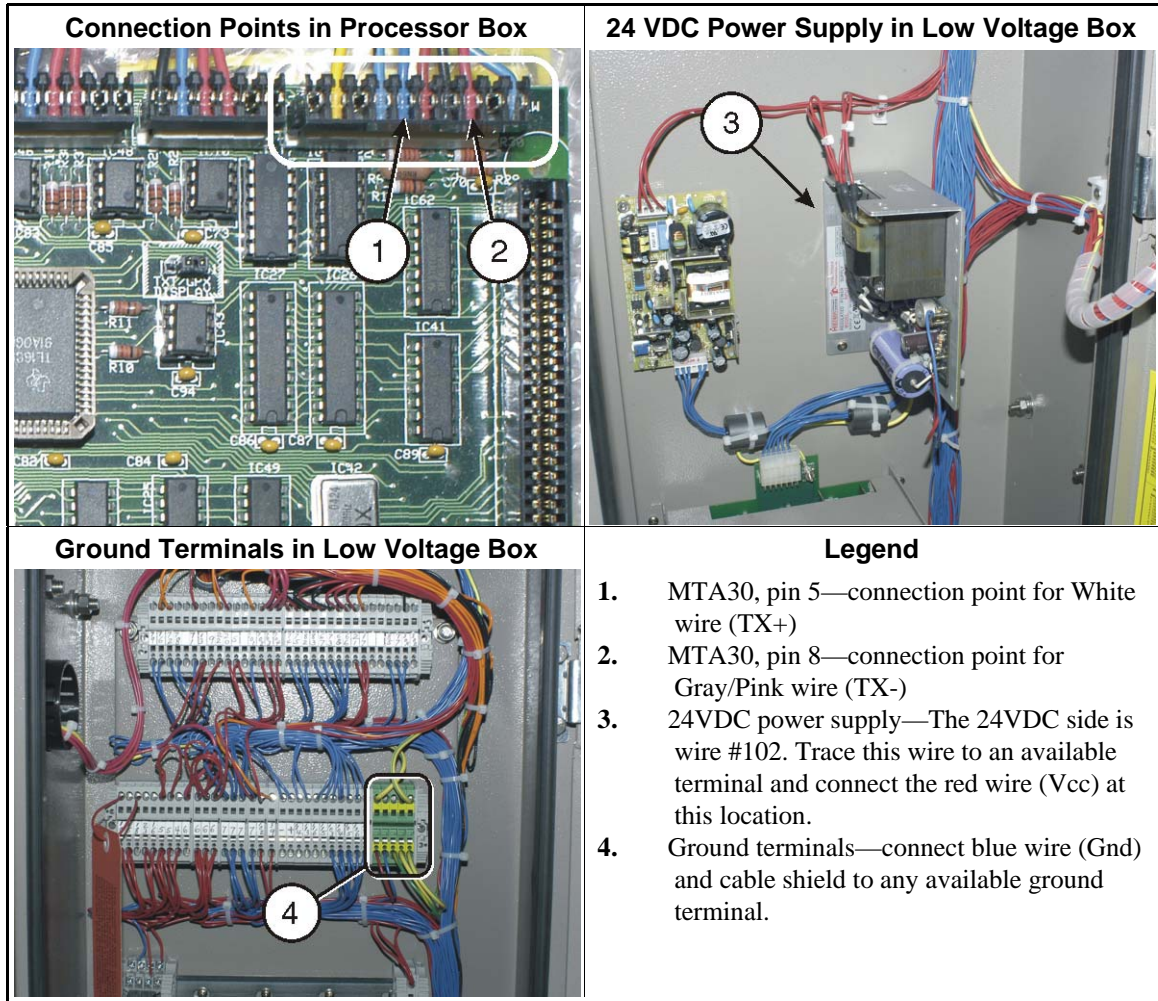


Figure 4: Jumper Position



Only four of the conductors (the green, white, red, and blue wires) and the cable shield are used for this application. If the cable must be field-wired, make electrical connections as shown in [Figure 5](#).

Figure 5: Connections—Previously Installed Shuttle



3. Configure, Align, and Program

These instructions apply specifically to Banner L-Gage LT7 laser device. You received a manual with this device. **Review the safety information in this manual.** The manual provides more information than necessary to implement the laser positioner system for the shuttle. The following sections give the pertinent instructions. You can find detailed information in the Banner manual.

Display or Action

Explanation



Energize the shuttle (at the MultiTrac or Drynet console). This will also apply power to the laser.



Set the shuttle to the Manual mode (at the stationary shuttle control panel). This will take the shuttle off line.

Perform the procedures in this section with shuttle power on, but with the machine off line. **Use extreme care when you work in or near the shuttle path.**














3.1. Laser Configuration—Required configuration settings:









Serial interface: RS422

Installation of the Laser Positioner for Traversing Shuttles

Baud rate: 19,200
 Data Bits: 8
 Stop Bits: 1
 Data method: REPEAT

At the laser device:

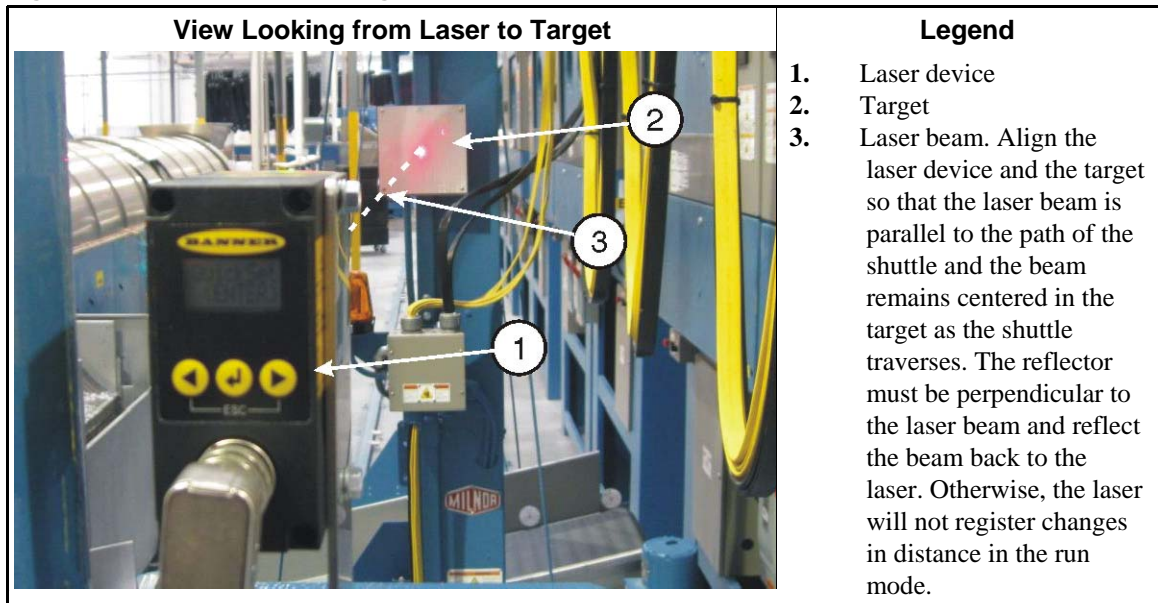
Display or Action	Explanation
<code>DIST mm</code> <code>>250000</code>	This or a similar display indicates the laser run mode. The laser displays distance in hundredths of units.
	Accesses the laser program mode. This also activates the visible pilot laser used for alignment.
<code>QuickSet</code> <code><ENTER></code>	This is the first sub-menu in the Program menu.
 ,  ...	Scrolls the sub-menus. Select "UNIT".
<code>UNIT</code> <code><mm></code>	This display indicates the laser is configured for millimeter units. You can choose millimeters or inches (<inch>). If you want to change units:
	Accesses the <i>UNIT</i> field.
<code>UNIT</code> <code>>mm</code>	You can now select inch units.
	Toggles between <i>mm</i> and <i>inch</i> each time the key is pressed.
	Locks in the selected value.
<code>UNIT</code> <code><inch></code>	Indicates that the laser is configured for inch units. When the laser is properly aligned, the Run display will show the distance between the laser and target in hundredths of inches .
 ,  ...	Scrolls the sub-menus. Select the "SERIAL" sub-menu.
<code>SERIAL</code> <code><RS422></code>	This is the display you should see and indicates that the currently configured interface type is RS422. If you see any other value on the bottom line, access this field as follows.
	Accesses the field to select the type of interface.
<code>SERIAL</code> <code>>RS422</code>	You can now select another type of interface.
 ,  ...	Scrolls the interface types, which are: RS422, SSI 1/8, SSI1/10, and EXT.BUS. Select RS422.
	Locks in the selected value.
<code>SERIAL</code> <code><RS422></code>	Indicates that the laser is configured for an RS422 interface.
	Advances to the RS422 sub-menu.
<code>RS422</code>	Because the RS422 selection has it's own sub-menu, this display appears. This

Display or Action	Explanation
<code><ENTER></code>	sub-menu has four data fields: baud rate, data bits, stop bit, and data method.
	Advances to the first field in the RS422 sub-menu: baud rate.
<code>RS422</code> <code><19k2Bd></code>	19k2Bd is the correct value. If a different value appears on the bottom line, access this field and correct the value in the same manner as above. Otherwise, proceed to the Data Bits field.
	Advances to the next field in the RS422 sub-menu: data bits.
<code>RS422</code> <code><8DATAb></code>	8DATAb is the correct value. If <code><7DATAb></code> appears on the bottom line, access this field and correct the value. Otherwise, proceed to the Stop Bits field.
	Advances to the next field: stop bits.
<code>RS422</code> <code><1STOPb></code>	1STOPb is the correct value. If <code><2STOPb></code> appears on the bottom line, access this field and correct the value. Otherwise, proceed to the data method field.
	Advances to the next field: data method.
<code>RS422</code> <code><REPEAT></code>	REPEAT is the correct value. If <code><SINGLE></code> appears on the bottom line, access this field and correct the value. Otherwise, return to the Run mode.
 +  ,	Returns to each higher-level menu, then the Run mode.
 +  . . .	

3.2. Laser and Reflector Alignment

1. At the laser device, access the program mode as previously explained. This activates the visible pilot laser used for alignment.
2. Adjust the orientation of the laser on its mounting brackets to place the beam at the center of the target.
3. Operate the shuttle in manual mode to move it along the shuttle path. Find manual operation instructions for the shuttle in the Drynet Dryer/Shuttle operator guide. As the shuttle traverses, observe the position of the beam on the target.
4. Move the laser post, and adjust the orientation of the laser and target to achieve the alignment described in [Figure 6](#).
5. When alignment is achieved, anchor the laser post to the floor.
6. When the laser post is securely anchored, check the alignment again and make final adjustments.
7. Tighten the laser and target bracketry.

Figure 6: Laser and Reflector Alignment



3.3. Drynet Configuration and Programming of Shuttle Stop Positions—The Drynet Dryer/Shuttle controller requires configure data to use the laser positioner. For example, it must know the distance between the laser and the target, as detected by the laser device, for each position at which the shuttle stops. Determine these values at the laser device. Enter this data at the Drynet or MultiTrac console, in the *Configure Shuttle Encoder* form (Figure 7).

Figure 7: Configure Shuttle Encoder Form Configured for a Laser Device

Configure Shuttle Encoder

Shuttle is currently using Laser for tracking.

Using Laser tracking: 1

Number of Load Stations:

Number of Discharge Stations:

Distance at Home Station:

Slow Down Distance:

High Speed Distance (feet):

Counts at Left Ops Target:

Counts at Right Ops Target:

Counts at Reset Point:

Stop Offset Counts:

All Decel Time: in 10th of a second

Laser Position - looking from the flow of the goods which side of the shuttle is the laser mounted: (0=Right 1=Left)

Configure Load Stations:

Distance at Load Station 0:	<input type="text" value="118"/>
Distance at Load Station 1:	<input type="text" value="0"/>
Distance at Load Station 2:	<input type="text" value="0"/>
Distance at Load Station 3:	<input type="text" value="0"/>
Distance at Load Station 4:	<input type="text" value="0"/>
Distance at Load Station 5:	<input type="text" value="0"/>
Distance at Load Station 6:	<input type="text" value="0"/>
Distance at Load Station 7:	<input type="text" value="0"/>
Distance at Load Station 8:	<input type="text" value="0"/>
Distance at Load Station 9:	<input type="text" value="0"/>
Distance at Load Station 10:	<input type="text" value="0"/>
Distance at Load Station 11:	<input type="text" value="0"/>
Distance at Load Station 12:	<input type="text" value="0"/>
Distance at Load Station 13:	<input type="text" value="0"/>
Distance at Load Station 14:	<input type="text" value="0"/>
Distance at Load Station 15:	<input type="text" value="0"/>

Configure Discharge Stations:

Distance at Discharge Station 0:	<input type="text" value="118"/>
Distance at Discharge Station 1:	<input type="text" value="201"/>
Distance at Discharge Station 2:	<input type="text" value="329"/>
Distance at Discharge Station 3:	<input type="text" value="414"/>
Distance at Discharge Station 4:	<input type="text" value="566"/>
Distance at Discharge Station 5:	<input type="text" value="0"/>
Distance at Discharge Station 6:	<input type="text" value="0"/>
Distance at Discharge Station 7:	<input type="text" value="0"/>
Distance at Discharge Station 8:	<input type="text" value="0"/>
Distance at Discharge Station 9:	<input type="text" value="0"/>
Distance at Discharge Station 10:	<input type="text" value="0"/>
Distance at Discharge Station 11:	<input type="text" value="0"/>
Distance at Discharge Station 12:	<input type="text" value="0"/>
Distance at Discharge Station 13:	<input type="text" value="0"/>
Distance at Discharge Station 14:	<input type="text" value="0"/>
Distance at Discharge Station 15:	<input type="text" value="0"/>

1. At the MultiTrac or Drynet console, access the shuttle Encoder form:
 - a. In the Dryer/Shuttle Controller (DevComm Setup) window, select *Configure, Shuttles and Cobucs* on the menu. This displays one or more tabbed forms—one for each shuttle device in the system.
 - b. Select the tab corresponding to the shuttle with the new laser device. This displays the main configuration form for this shuttle.
 - c. Near the bottom right of the form, find the field *Shuttle has an Encoder*. Select (or re-select) the value 1. This displays the *Configure Shuttle Encoder* form (Figure 7).
2. Enter values in the fields on the left column of the encoder form in accordance with Table 2.
3. Do this procedure for each position at which the shuttle stops:
 - a. At the stationary shuttle control box, manually move the shuttle to the stop position. Ensure that the shuttle is precisely aligned with the interfacing device.
 - b. At the laser device, read the distance value in hundredths of units (inches or millimeters as previously configured). Hence, read the displayed value 26147 as 261 inches or millimeters.
 - c. At the Drynet controller, enter this value (whole inches or millimeters) in the appropriate field:
 - Distance at Home Station
 - Distance at Load Station ____
 - Distance at Discharge Station ____

Table 2: Guidelines for Encoder Values for Laser Device

Data Field	Required Value or Guideline
Using laser tracking	1
Number of Load Stations	Per physical layout
Number of Discharge Stations	Per physical layout
Distance at Home Station	See Item 3 below.
Slow Down Distance	Between 6 and 10 inches (152 and 254 mm) recommended
High Speed Distance (feet)	Not currently implemented
Counts at Left Oops Target	Disabled and not applicable to laser device.
Counts at Right Oops Target	
Counts at Reset Point	
Stop Offset Counts	0
At Decel Time: in 10ths of a second	0
Laser Position	Face the direction that goods move as they are loaded onto the shuttle bed. If the post-mounted laser is located to the right of the shuttle, enter 0. If to the left of the shuttle, enter 1.

4. Testing

When you have entered all shuttle stop positions in the Drynet controller, test each position as explained in document BIVSRC01 "How to Test Traversing Shuttle Stop Positions."

— End of BIVSVI01 —

Service and Maintenance

2

Torque Requirements for Fasteners



This document uses Simplified Technical English. Learn more at <http://www.asd-ste100.org>.

The document about the assembly gives the torque requirements for other fasteners. **If fastener torque specifications or threadlocker requirements in an assembly document are different from this document, use the assembly document.**

Figure 1: The Bolts in Milnor® Equipment

The Marks on Bolt Heads	Legend
	<p>A. SAE Grades 1 and 2, ASTM A307, and stainless steel</p> <p>B. Grade BC, ASTM A354</p> <p>C. SAE Grade 5, ASTM A449</p> <p>D. SAE Grade 8 and ASTM A354 BD</p>

1. Torque Values

These tables give the standard dimension, grade, threadlocker, and torque requirements for fasteners frequently used on Milnor® equipment.

Note 1: Data from the Pellerin Milnor® Corporation “Bolt Torque Specification” (bolt_torque_milnor.xls/2002096).

1.1. Fasteners Made of Carbon Steel

1.1.1. Without a Threadlocker

Table 1: Torque Values for Standard Fasteners with Maximum 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m
1/4 x 20	66	7	101	11	143	16	126	14
1/4 x 28	76	9	116	13	163	18	--	--
5/16 x 18	136	15	209	24	295	33	258	29
5/16 x 24	150	17	232	26	325	37	--	--

Torque Requirements for Fasteners

Table 2: Torque Values for Standard Fasteners Larger Than 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/8 x 16	20	27	31	42	44	59	38	52
3/8 x 24	23	31	35	47	50	68	--	--
7/16 x 14	32	43	49	66	70	95	61	83
7/16 x 20	36	49	55	75	78	105	--	--
1/2 x 13	49	66	75	102	107	145	93	126
1/2 x 20	55	75	85	115	120	163	--	--
9/16 x 12	70	95	109	148	154	209	134	182
9/16 x 18	78	106	121	164	171	232	--	--
5/8 x 11	97	131	150	203	212	287	186	252
5/8 x 18	110	149	170	231	240	325	--	--
3/4 x 10	172	233	266	361	376	510	329	446
3/4 x 16	192	261	297	403	420	569	--	--
7/8 x 9	167	226	429	582	606	821	531	719
7/8 x 14	184	249	473	641	668	906	--	--
1 x 8	250	339	644	873	909	1232	796	1079
1 x 12	274	371	704	954	994	1348	--	--
1 x 14	281	381	723	980	1020	1383	--	--
1 1/8 x 7	354	480	794	1077	1287	1745	1126	1527
1 1/8 x 12	397	538	891	1208	1444	1958	--	--
1 1/4 x 7	500	678	1120	1519	1817	2464	1590	2155
1 1/4 x 12	553	750	1241	1682	2012	2728	--	--
1 3/8 x 6	655	888	1469	1992	2382	3230	2085	2827
1 3/8 x 12	746	1011	1672	2267	2712	3677	--	--
1 1/2 x 6	869	1178	1949	2642	3161	4286	2767	3751
1 1/2 x 12	979	1327	2194	2974	3557	4822	--	--

Table 3: Torque Values for Plated Fasteners with Maximum 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m
1/4 x 20	49	6	76	9	107	12	95	11
1/4 x 28	56	6	88	10	122	14	--	--
5/16 x 18	102	12	156	18	222	25	193	22
5/16 x 24	113	13	174	20	245	28	--	--

Table 4: Torque Values for Plated Fasteners Larger Than 5/16-inch Diameters and No Lubricant

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/8 x 16	15	20	23	31	33	44	29	38
3/8 x 24	17	23	26	35	37	49	--	--
7/16 x 14	24	32	37	50	52	71	46	61
7/16 x 20	27	36	41	55	58	78	--	--
1/2 x 13	37	49	56	76	80	106	70	93
1/2 x 20	41	55	64	85	90	120	--	--
9/16 x 12	53	70	81	110	115	153	101	134
9/16 x 18	59	79	91	122	128	174	--	--
5/8 x 11	73	97	113	150	159	212	139	186
5/8 x 18	83	110	127	172	180	240	--	--
3/4 x 10	129	173	200	266	282	376	246	329
3/4 x 16	144	192	223	297	315	420	--	--
7/8 x 9	125	166	322	430	455	606	398	531
7/8 x 14	138	184	355	474	501	668	--	--
1 x 8	188	250	483	644	682	909	597	796
1 x 12	205	274	528	716	746	995	--	--
1 x 14	210	280	542	735	765	1037	--	--
1 1/8 x 7	266	354	595	807	966	1288	845	1126
1 1/8 x 12	298	404	668	890	1083	1444	--	--
1 1/4 x 7	375	500	840	1120	1363	1817	1192	1590
1 1/4 x 12	415	553	930	1261	1509	2013	--	--
1 3/8 x 6	491	655	1102	1470	1787	2382	1564	2085
1 3/8 x 12	559	758	1254	1672	2034	2712	--	--
1 1/2 x 6	652	870	1462	1982	2371	3161	2075	2767
1 1/2 x 12	733	994	1645	2194	2668	3557	--	--

1.1.2. With a Threadlocker

Table 5: Threadlocker by the Diameter of the Bolt (see Note 2)

LocTite Product	Dimension			
	1/4-inch	1/4- to 5/8-inch	5/8- to 7/8-inch	1-inch +
LocTite 222	OK			
LocTite 242		OK		
LocTite 262			OK	
LocTite 272			High temperature	
LocTite 277				OK

Note 2: The acceptable bolt size ranges for various LocTite® threadlocking products is the LocTite manufacturer's **general** recommendation. Specific applications sometime require that a LocTite product is applied to a bolt size outside the ranges shown here. For example, Milnor specifies LocTite 242 for use on certain 1" bolt applications and has confirmed this usage with the LocTite manufacturer. You may see variances such as this in the documentation for specific machine assemblies.

Torque Requirements for Fasteners

Table 6: Torque Values if You Apply LocTite 222

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-inches	N-m	Pound-inches	N-m	Pound-inches	N-m	Pound-inches	N-m
1/4 x 20	60	7	96	11	132	15	108	12
1/4 x 28	72	8	108	12	144	16	--	--

Table 7: Torque Values if You Apply LocTite 242

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
5/16 x 18	11	15	17	23	25	34	22	30
5/16 x 24	13	18	19	26	27	37	27	37
3/8 x 16	20	27	31	42	44	60	38	52
3/8 x 24	23	31	35	47	50	68	--	--
7/16 x 14	32	43	49	66	70	95	61	83
7/16 x 20	36	49	55	75	78	106	--	--
1/2 x 13	49	66	75	102	107	145	93	126
1/2 x 20	55	75	85	115	120	163	--	--
9/16 x 12	70	95	109	148	154	209	134	182
9/16 x 18	78	106	121	164	171	232	--	--
5/8 x 11	97	132	150	203	212	287	186	252
5/8 x 18	110	149	170	230	240	325	--	--

Table 8: Torque Values if You Apply LocTite 262

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/4 x 10	155	210	240	325	338	458	296	401
3/4 x 16	173	235	267	362	378	512	--	--
7/8 x 9	150	203	386	523	546	740	477	647
7/8 x 14	165	224	426	578	601	815	--	--

Table 9: Torque Values if You Apply LocTite 272 (High-Temperature)

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
1 x 8	350	475	901	1222	1272	1725	1114	1510
1 x 12	383	519	986	1337	1392	1887	--	--
1 x 14	393	533	1012	1372	1428	1936	--	--
1-1/8 x 7	496	672	1111	1506	1802	2443	1577	2138
1-1/8 x 12	556	754	1247	1691	2022	2741	--	--
1-1/4 x 7	700	949	1568	2126	2544	3449	2226	3018
1-1/4 x 12	774	1049	1737	2355	2816	3818	--	--
1-3/8 x 6	917	1243	2056	2788	3335	4522	2919	3958
1-3/8 x 12	1044	1415	2341	3174	3797	5148	--	--
1-1/2 x 6	1217	1650	2729	3700	4426	6001	3873	5251
1-1/2 x 12	1369	1856	3071	4164	4980	6752	--	--

Table 10: Torque Values if You Apply LocTite 277

Dimension	The Grade of the Bolt							
	Grade 2		Grade 5		Grade 8		Grade BC	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
1 x 8	325	441	837	1135	1181	1601	1034	1402
1 x 12	356	483	916	1242	1293	1753	--	--
1 x 14	365	495	939	1273	1326	1798	--	--
1-1/8 x 7	461	625	1032	1399	1674	2270	1464	1985
1-1/8 x 12	516	700	1158	1570	1877	2545	--	--
1-1/4 x 7	650	881	1456	1974	2362	3202	2067	2802
1-1/4 x 12	719	975	1613	2187	2615	3545	--	--
1-3/8 x 6	851	1154	1909	2588	3097	4199	2710	3674
1-3/8 x 12	970	1315	2174	2948	3526	4781	--	--
1-1/2 x 6	1130	1532	2534	3436	4110	5572	3597	4877
1-1/2 x 12	1271	1723	2852	3867	4624	6269	--	--

1.2. Stainless Steel Fasteners

Table 11: Torque Values for Stainless Steel Fasteners 5/16-inch and Smaller

Dimension	316 Stainless		18-8 Stainless		18-8 Stainless with Loctite 767	
	Pound-Inches	N-m	Pound-Inches	N-m	Pound-Inches	N-m
1/4 x 20	79	9	76	9	45	5
1/4 x 28	100	11	94	11	56	6
5/16 x 18	138	16	132	15	79	9
5/16 x 24	148	17	142	16	85	10

Table 12: Torque Values for Stainless Steel Fasteners Larger Than 5/16-inch

Dimension	316 Stainless		18-8 Stainless		18-8 Stainless with Loctite 767	
	Pound-feet	N-m	Pound-feet	N-m	Pound-feet	N-m
3/8 x 16	21	28	20	27	12	16
3/8 x 24	23	31	22	29	13	18
7/16 x 14	33	44	31	42	19	25
7/16 x 20	35	47	33	45	20	27
1/2 x 13	45	61	43	58	26	35
1/2 x 20	47	64	45	61	27	37
9/16 x 12	59	81	57	77	34	46
9/16 x 18	66	89	63	85	38	51
5/8 x 11	97	131	93	125	56	75
5/8 x 18	108	150	104	141	62	84
3/4 x 10	132	179	128	173	77	104
3/4 x 16	130	176	124	168	75	101
7/8 x 9	203	275	194	263	116	158
7/8 x 14	202	273	193	262	116	157
1 x 8	300	406	287	389	172	233
1 x 14	271	367	259	351	156	211
1-1/8 x 7	432	586	413	560	248	336
1-1/8 x 12	408	553	390	529	234	317
1-1/4 x 7	546	740	523	709	314	425
1-1/4 x 12	504	683	480	651	288	390
1-1/2 x 6	930	1261	888	1204	533	722
1-1/2 x 12	732	992	703	953	422	572

2. Preparation



WARNING 2: Fire Hazard—Some solvents and primers are flammable.

- Use threadlocker and primers with sufficient airflow.
 - Do not use flammable material near ignition sources.
1. Clean all threads with a wire brush or a different tool.
 2. Remove the grease from the fasteners and the mating threads with solvent. Make the parts dry.

Note 3: Loctite 7649 Primer™ or standard solvents will remove grease from parts.

3. Apply a spray of Loctite 7649 Primer™ or equal on the fasteners and the mating threads. Let the primer dry for one minute minimum.

3. How to Apply a Threadlocker

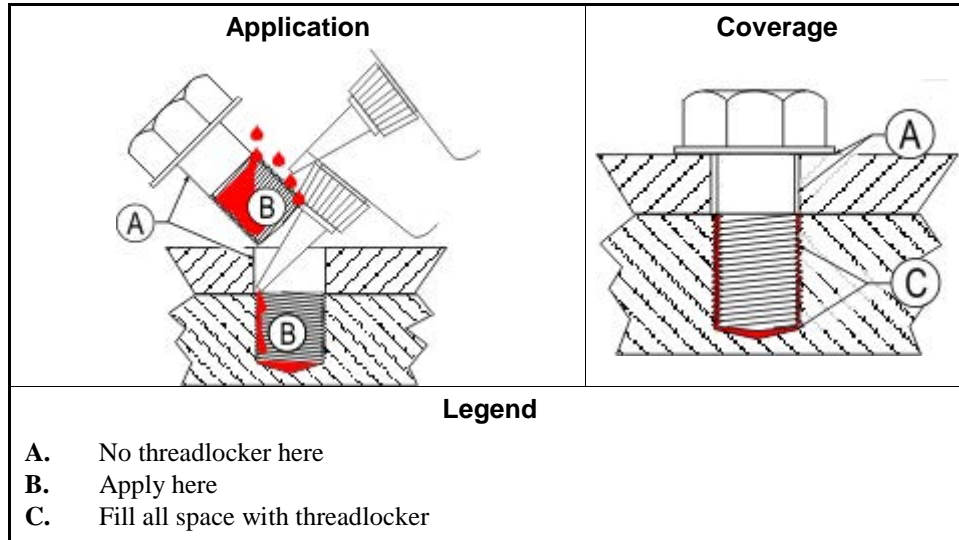


CAUTION 3: Malfunction Hazard—Heat, vibration, or mechanical shocks can let the fasteners loosen if you do not apply the threadlocker correctly. Loose fasteners can cause malfunctions of the equipment.

- Read the threadlocker manufacturer's instructions and warnings. Obey these instructions.

Apply the threadlocker only to the areas where the fastener threads and the mating threads engage.

Figure 2: Blind Hole



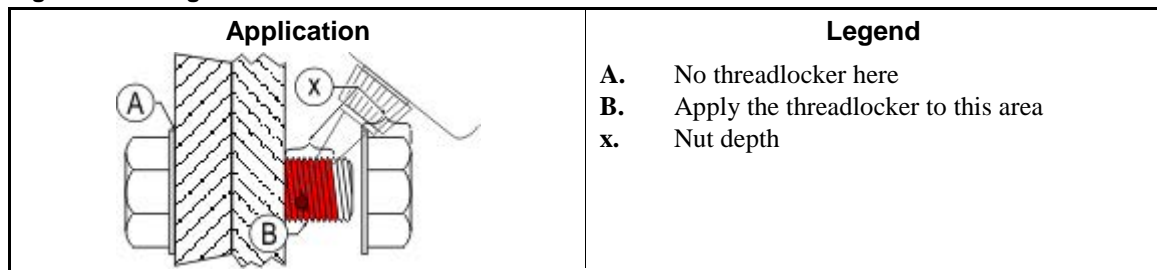
3.1. Blind Holes

1. Apply the threadlocker down the threads to the bottom of the hole.
2. Apply the threadlocker to the bolt.
3. Tighten the bolt to the value shown in the correct table ([Table 5](#) to [Table 11](#)).

3.2. Through Holes

1. Put the bolt through the assembly.
2. Apply the threadlocker only to the bolt thread area that will engage the nut.
3. Tighten the bolt to the value shown in the correct table ([Table 5](#) to [Table 11](#)).

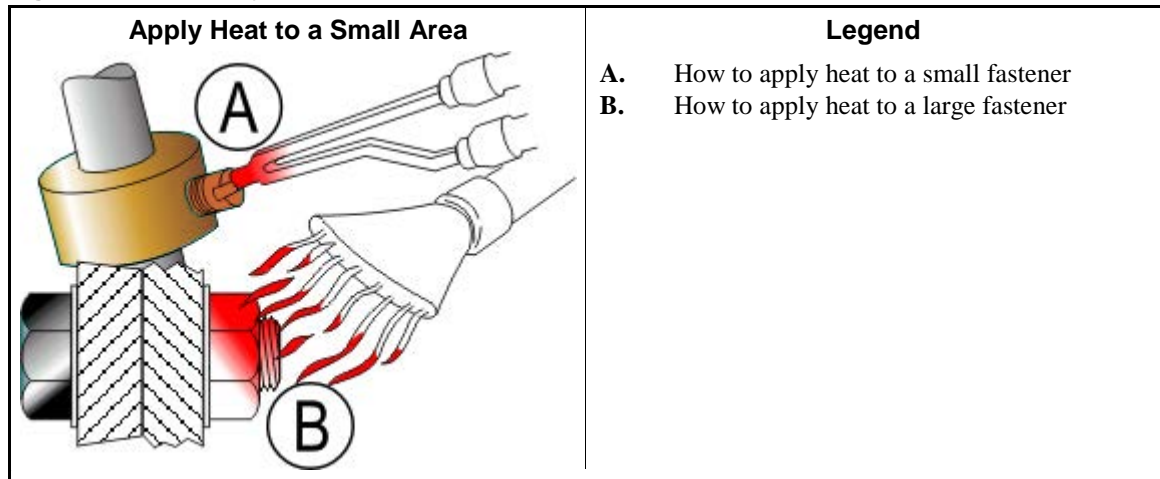
Figure 3: Through Hole



- 3.3. Disassembly**—For high-strength threadlocker, apply heat for five minutes. Disassemble with hand tools while the parts are hot.

For low-strength and moderate-strength threadlocker, disassemble with hand tools.

Figure 4: Disassembly



— End of BIUUM04 —

Replacing the Motor and Secondary Brake Assembly on CF40xxxx and CL40xxxx Shuttles

Document BIVSRM01
Spec Date..... 19991110
As-of Date..... 19991110

1. Required tools

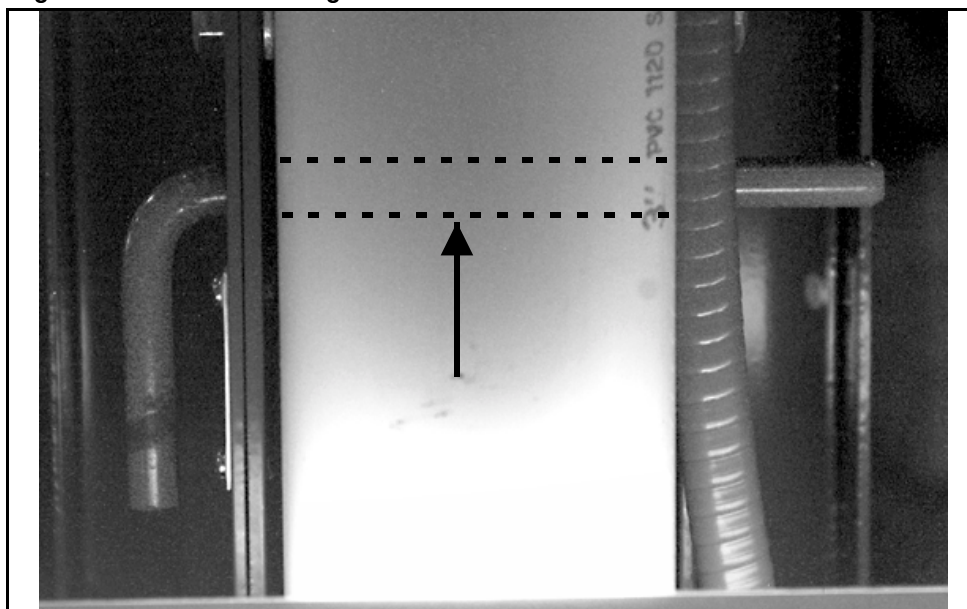
This procedure requires safety harnesses, two technicians, a forklift, and a chain hoist or other suitable lifting device capable of safely supporting the weight of the motor (approximately 65 pounds - 29.5 kilograms).

2. Removing the motor and secondary brake assembly

WARNING 1: **Fall Hazard**—You can lose balance and fall from a shuttle bed.

- Permit only qualified personnel to perform these procedures.
- Use safety harness while working on shuttle.
- Insert factory supplied safety pins into shuttle beds.
- Follow procedure carefully.

Figure 1: Pin inserted through rail



1. Using a forklift, chain hoist, or other hoisting device, lift the shuttle bed(s) as close as possible to the top beam to minimize the chain weight and provide a stable work area. Install the factory supplied safety pins. Pins must be inserted completely through the side rail as shown in Figure 1. Wear a safety harness secured to the top beam or other strong support to prevent serious injury in the event of a fall from the top of the shuttle.
2. Attach one end of a suitably sized rope to the motor/secondary brake unit and run the other end over the top of a beam or other strong structure above the shuttle. Loosen the locking collar clamp screw and key set screw (Figure 4) holding the secondary brake shaft to the gear reducer. Access these items through the access ports shown in Figure 3. Remove the four motor-to-gear reducer fasteners (Figure 2, item 3). Lower motor to ground.

Figure 2: Shuttle Components

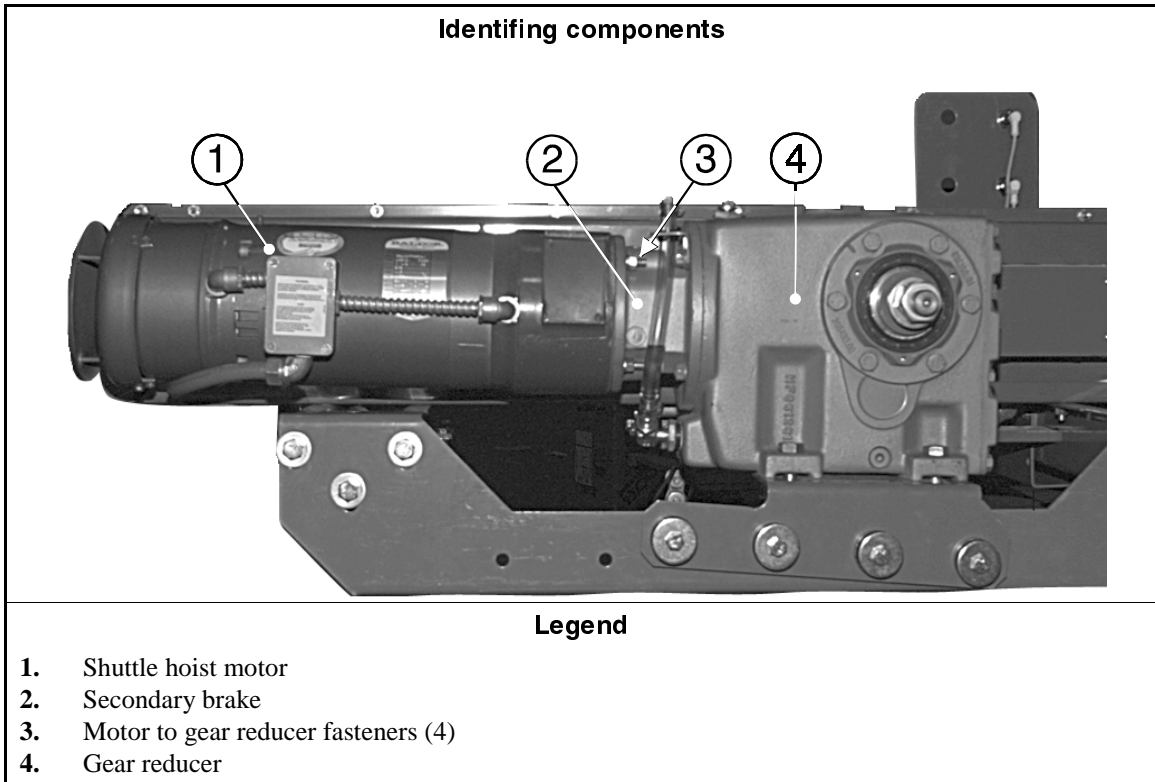
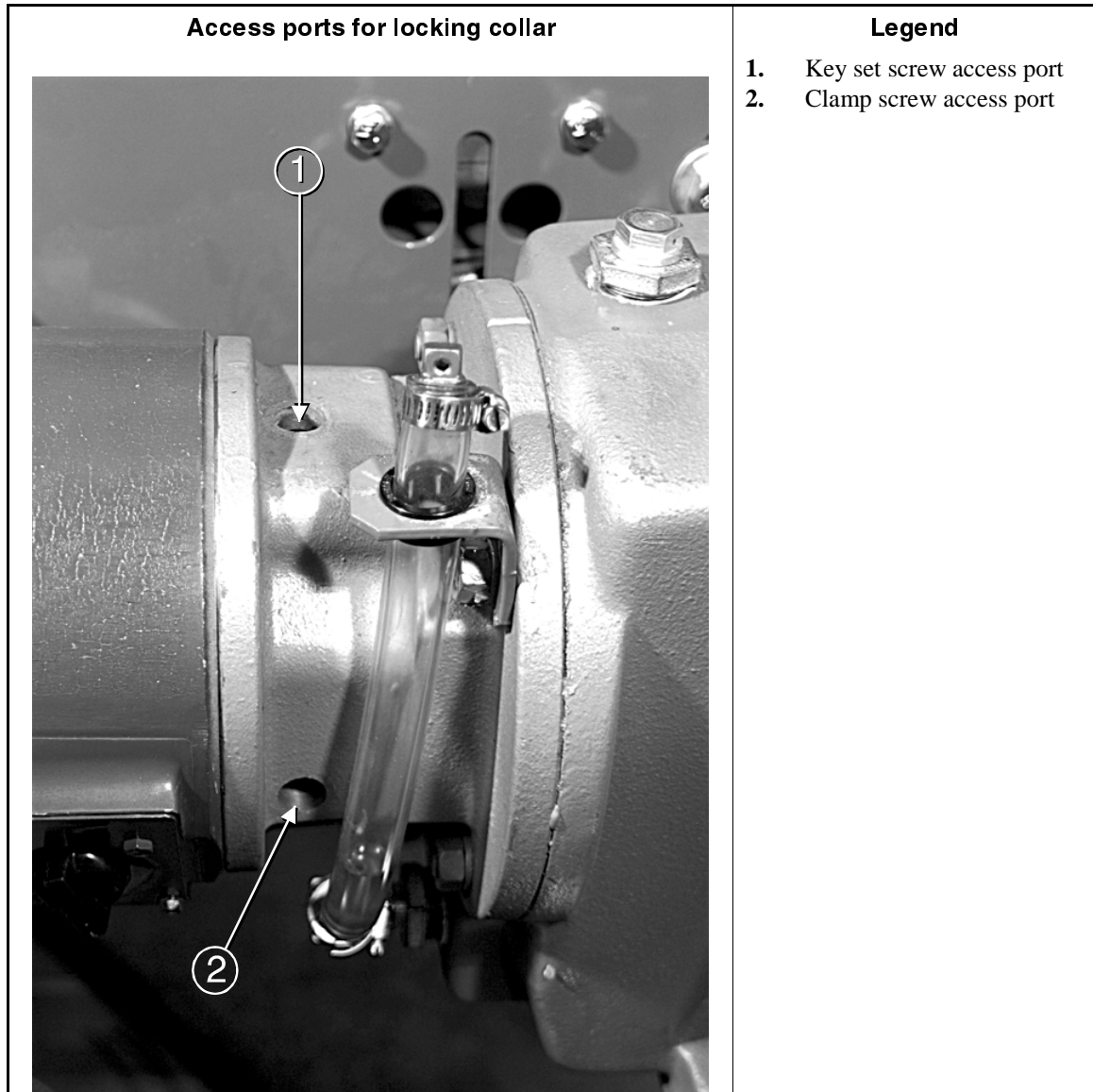


Figure 3: Removing or installing the secondary brake on the gear reducer



3. Reinstalling Shuttle Motor/Secondary Brake Assembly

A locking collar (Figure 4) connects the motor and secondary brake assemblies (Figure 2) to the gear reducer. If this locking collar is incorrectly installed, the connection between the secondary brake shaft and the gear reducer will loosen, causing the shuttle bed(s) to not elevate and/or slip.

1. Screw key set screw in until one thread is exposed (as shown in Figure 4).
2. Manually rotate the gear reducer shaft until the keyway slot is vertical (Figure 5). Slide the locking collar on the gear reducer shaft. Check that the collar cannot be rotated on the gear reducer shaft.

Figure 4: Examining the locking collar

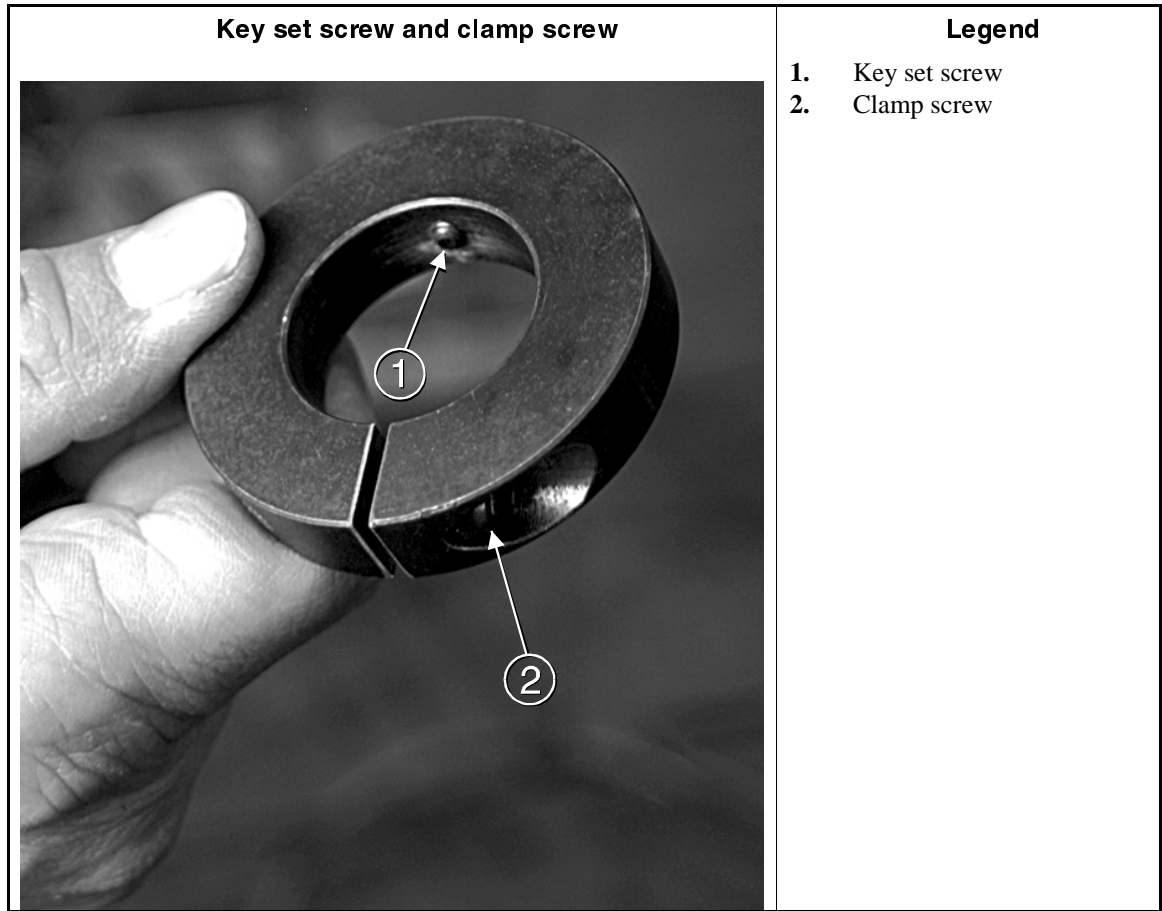
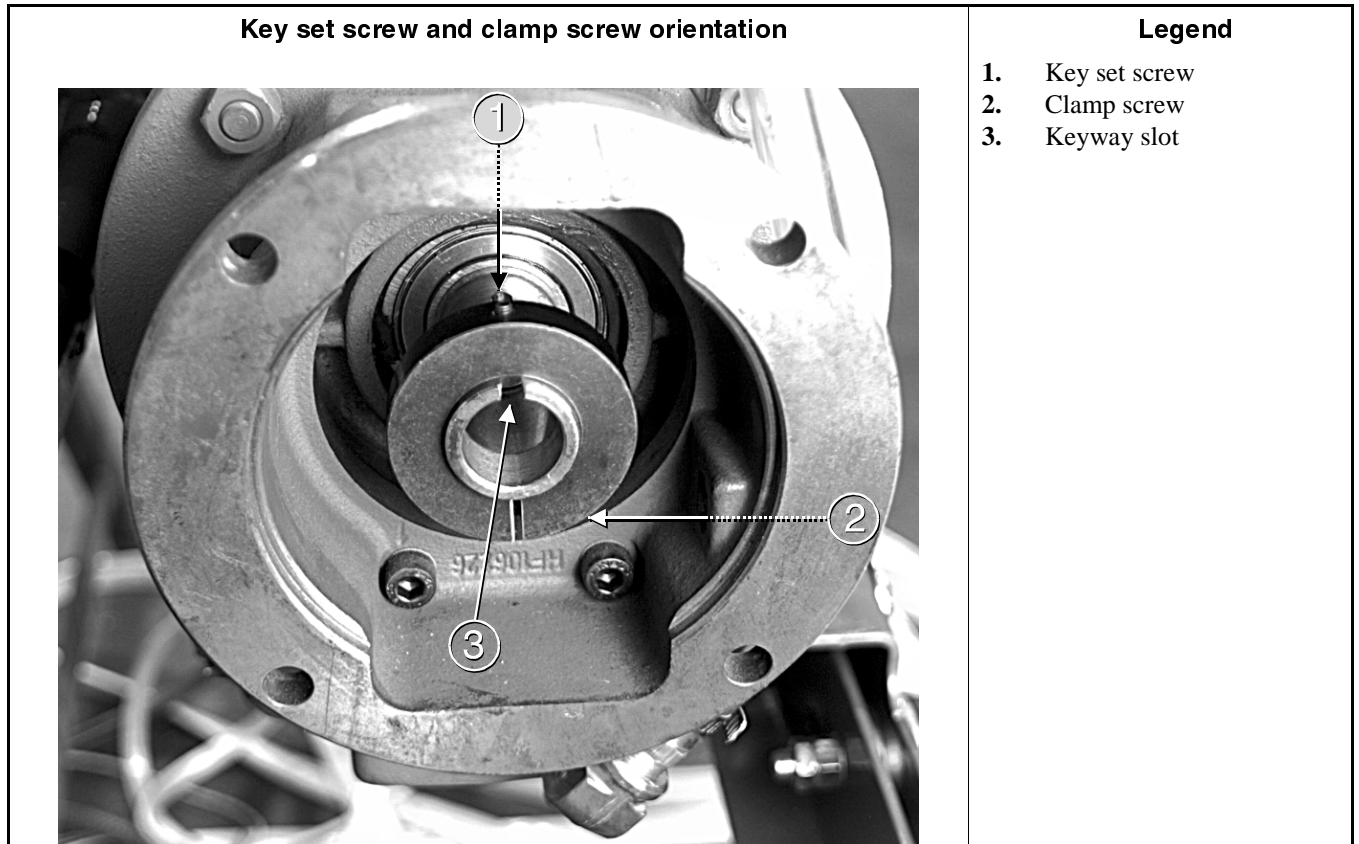


Figure 5: Locking collar in place



Note 1: Motor and secondary brakes lock as soon as control power is restored to machine.

3. Slide the secondary brake onto motor shaft. Release both the motor and secondary brake (Figure 6), if necessary, to rotate the secondary brake shaft to match the gear reducer shaft. Slide the brake shaft into gear reducer shaft (Figure 7). Lock both brakes at this time to prevent the shaft from rotating out of the correct position for tightening the locking collar.
4. Install and tighten the motor-to-gear reducer fasteners.
5. Tighten the clamp screw, then tighten the key set screw through the provided access ports (shown in Figure 3).

Figure 6: Identifying the secondary and motor brake releases

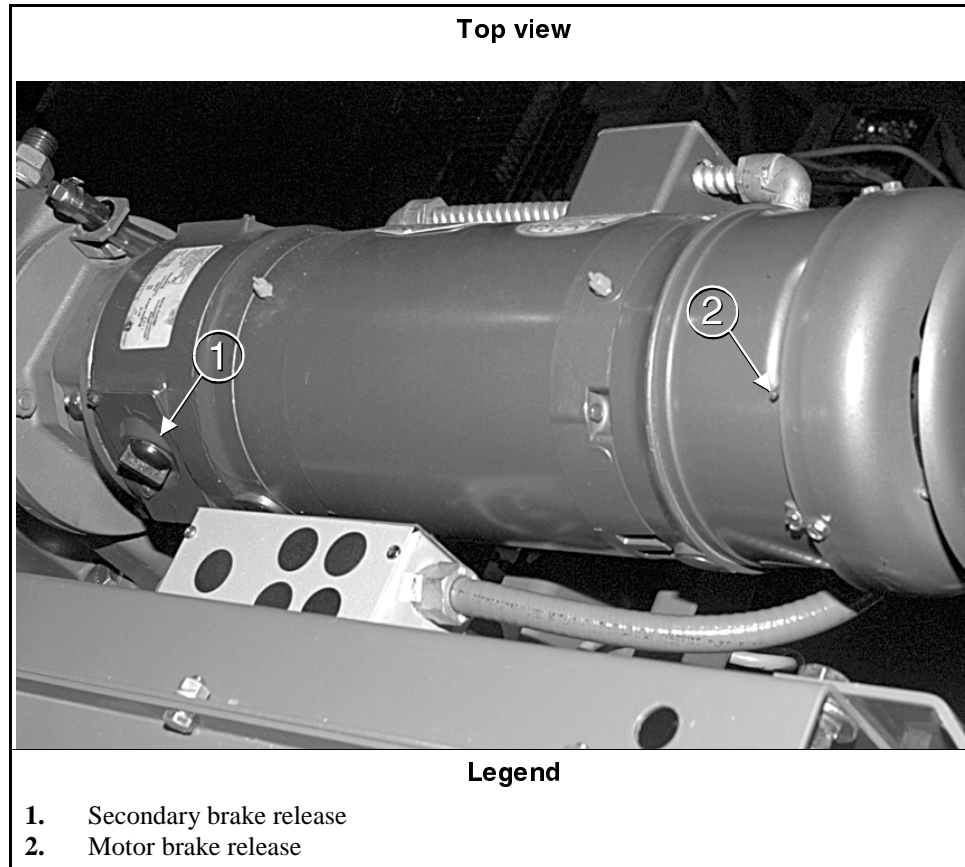
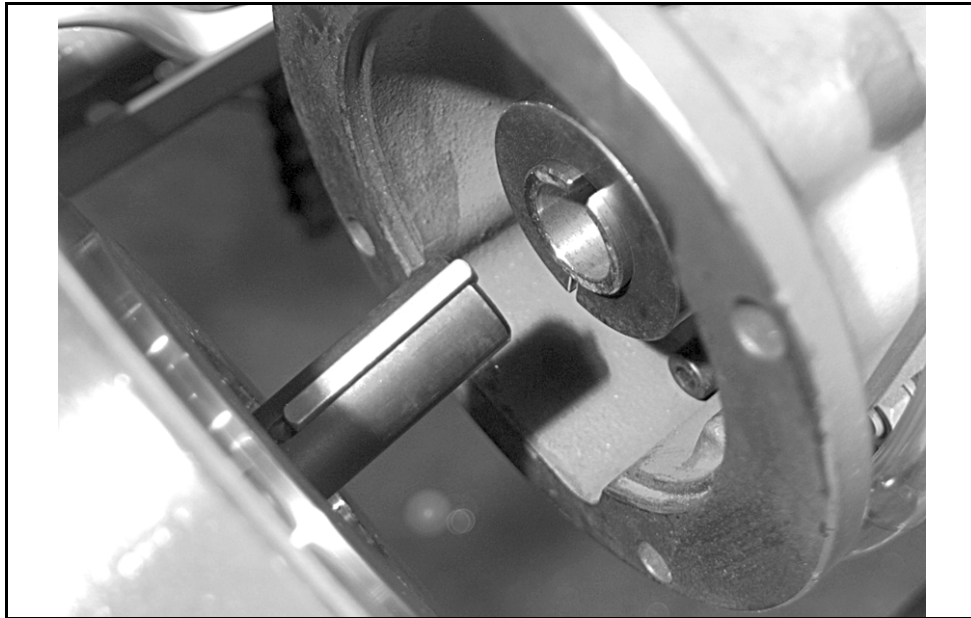


Figure 7: Sliding secondary brake shaft into gear reducer



— End of BIVSRM01 —

Parts Identification

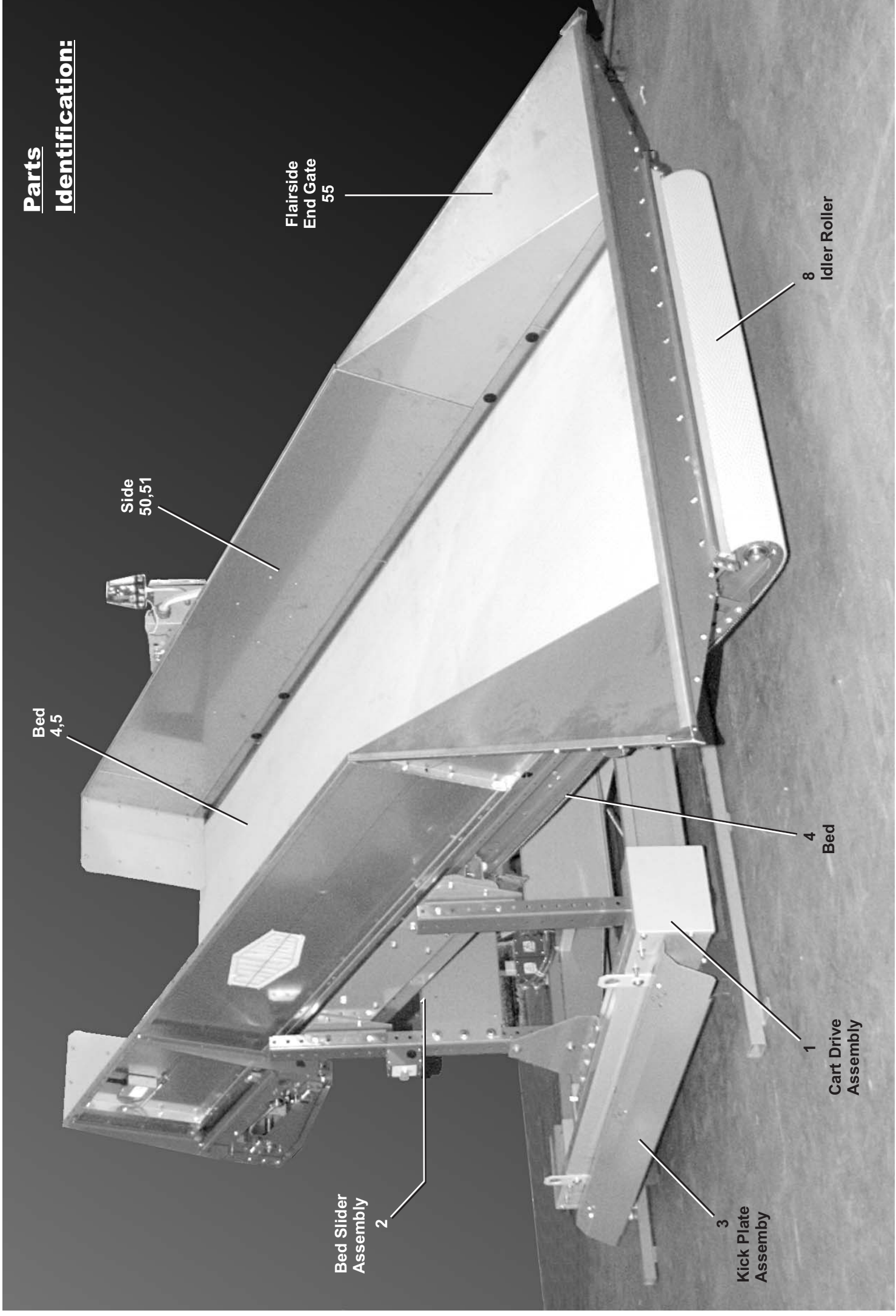
CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS

MGQCF40XXAE/2012154B
(1 / 11)



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Litho in U.S.A.



Parts Identification:

Bed
4,5

Side
50,51

Flairside
End Gate
55

Bed Slider
Assembly
2

Kick Plate
Assembly
3

1
Cart Drive
Assembly

4
Bed

8
Idler Roller

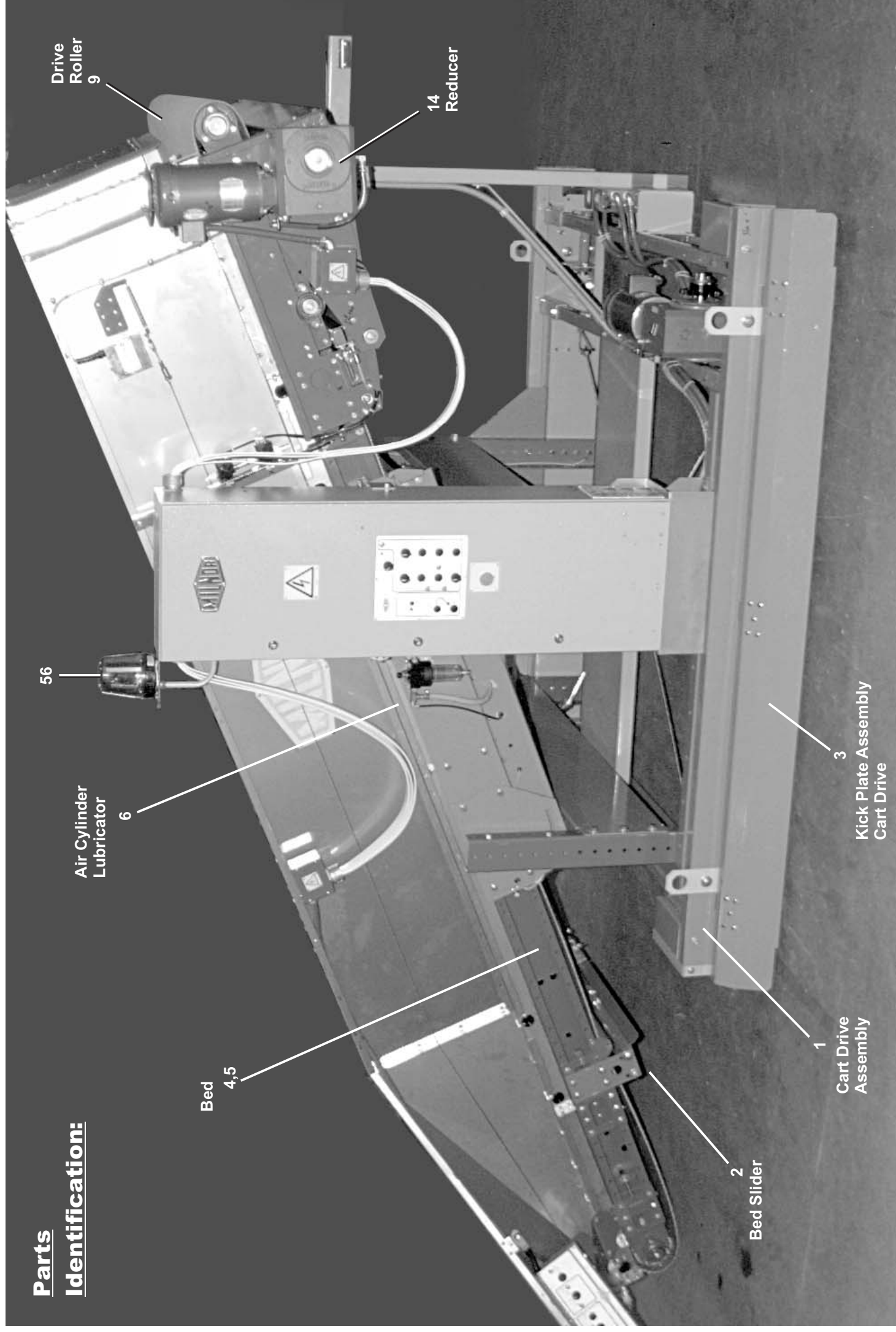
Parts Identification
CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS

MGQCF40XXAE/2012154B
(2 / 11)



Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.



Parts
Identification:

9 Drive Roller

14 Reducer

56

6 Air Cylinder Lubricator

4,5 Bed

2 Bed Slider

1 Cart Drive Assembly

3 Kick Plate Assembly Cart Drive

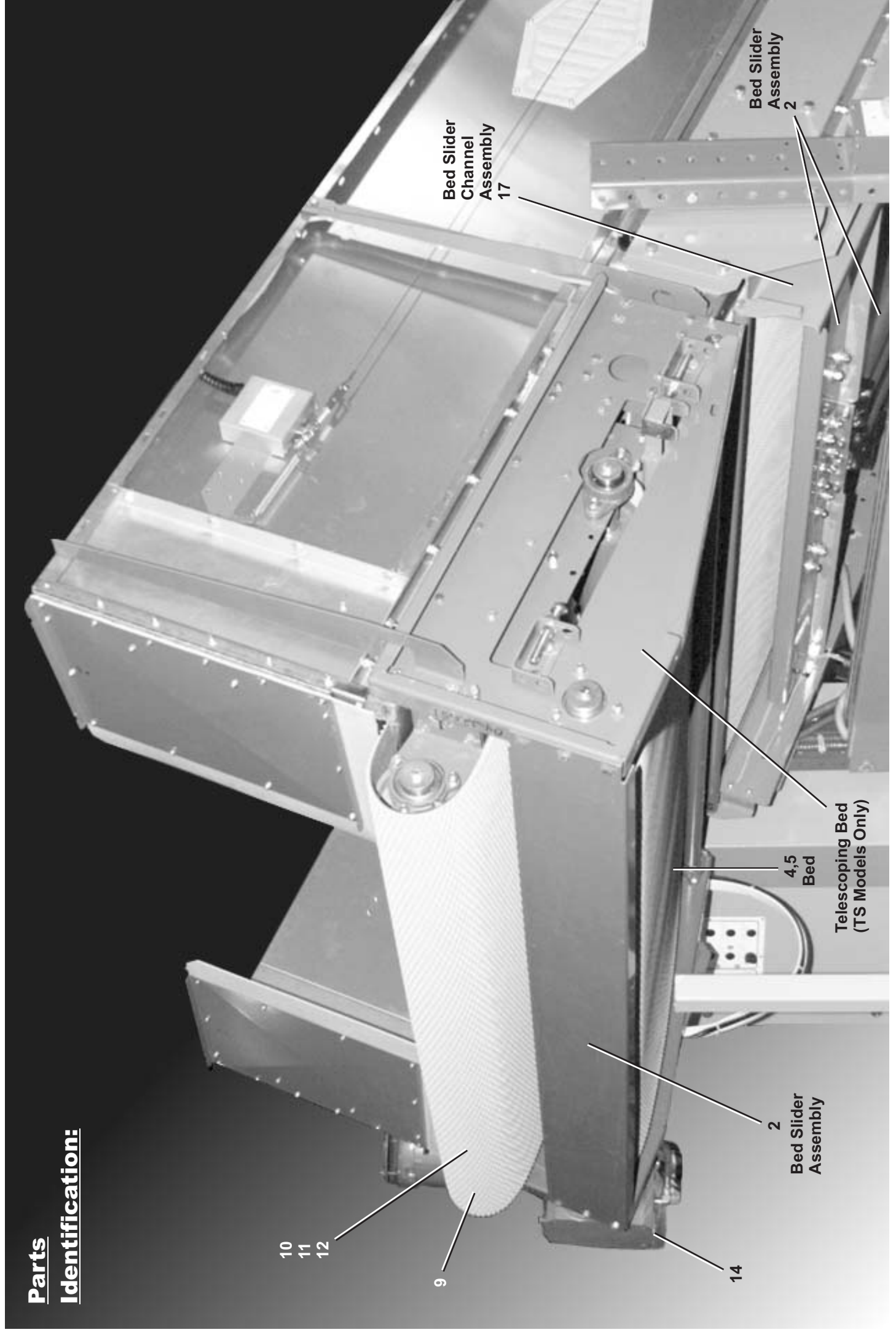
Parts Identification
CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS

MGQCF40XXAE/2012154B
(3 / 11)



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Litho in U.S.A.



Parts
Identification:

Parts Identification

CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS

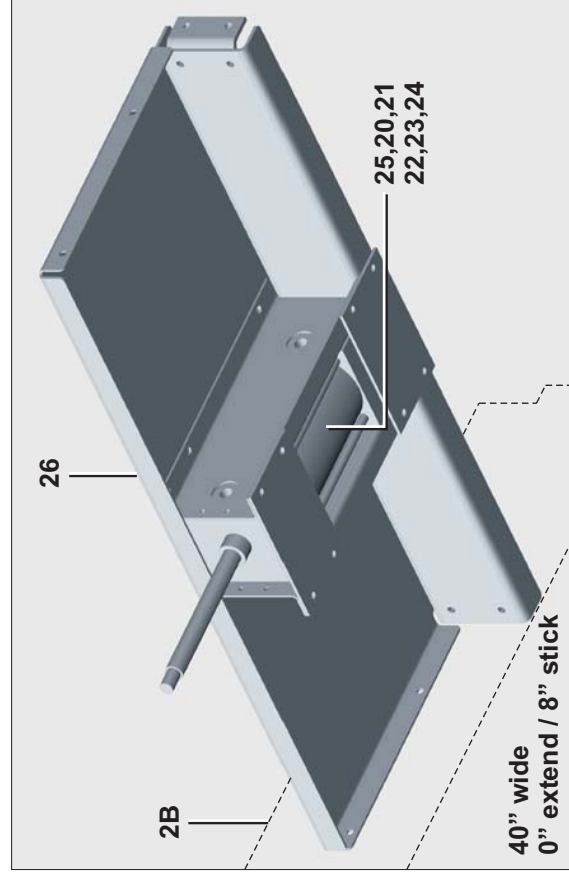
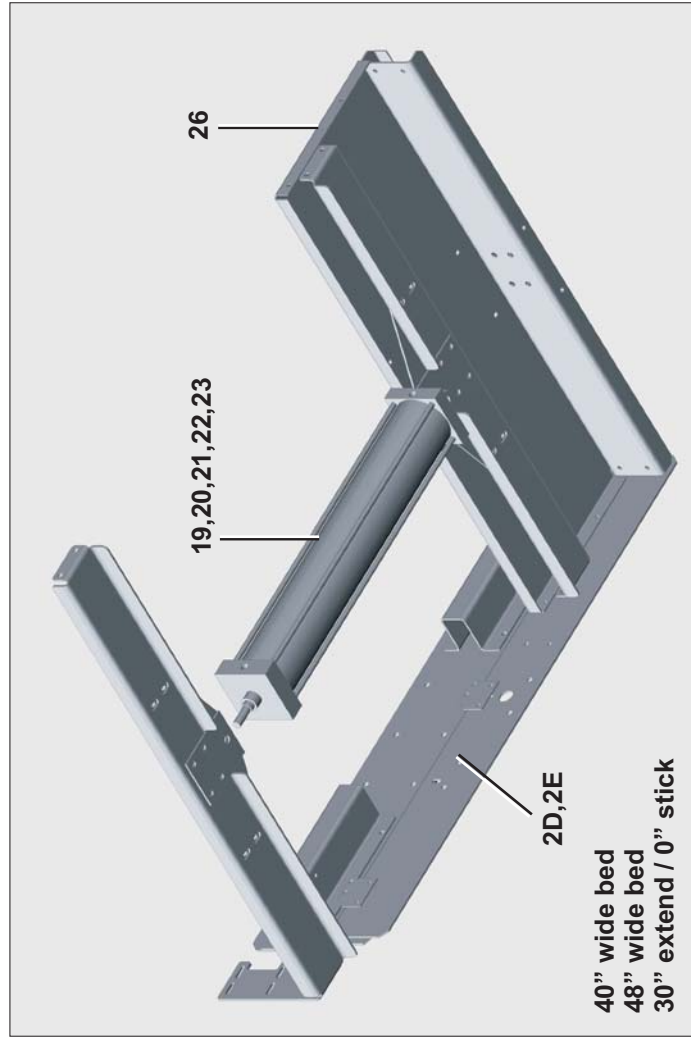
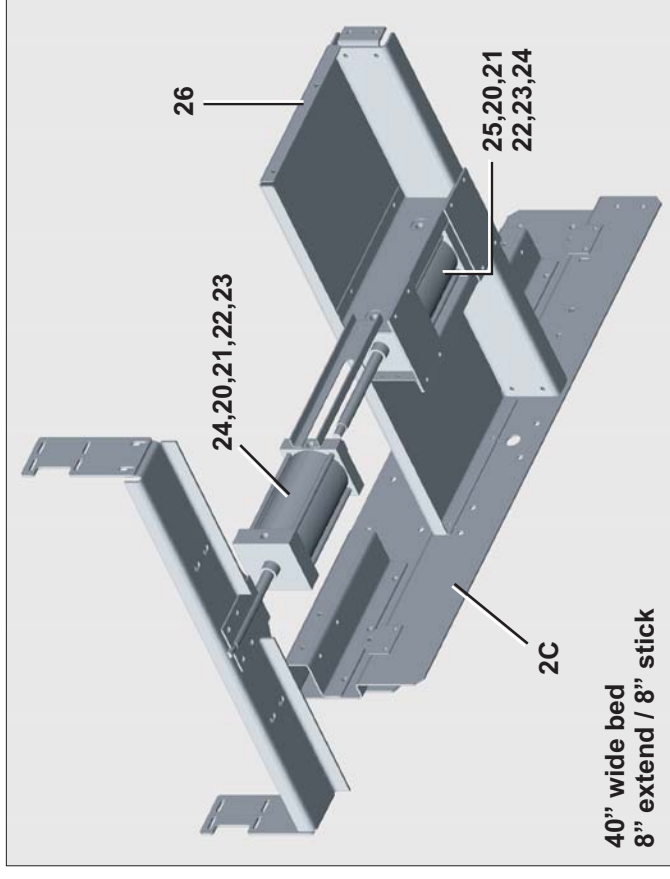
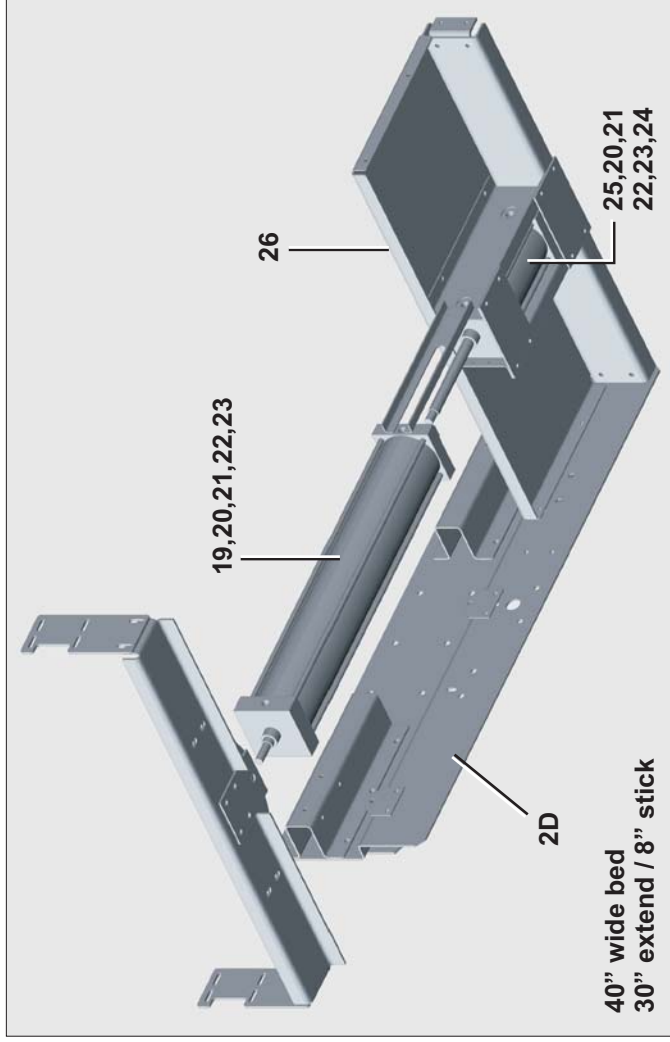
MGQCF40XXAE/2012154B
(4 / 11)



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Litho in U.S.A.

Bed Slider Assemblies



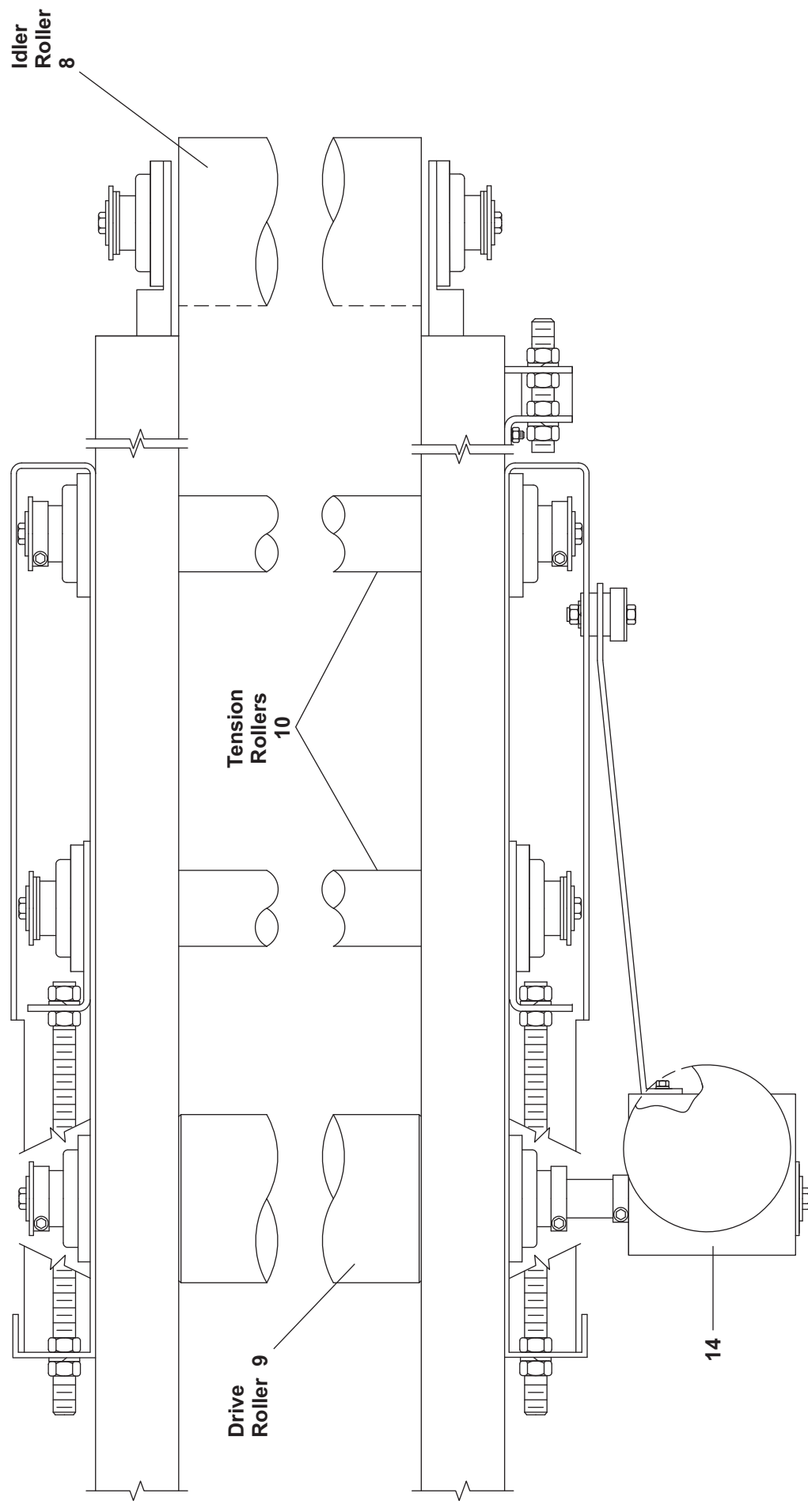


Pellerin Milnor Corporation
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Litho in U.S.A.

Under Drive
(if specified)

Used on models:
CF4014CS
CF4014FS
CF4014MS
CF4814JS



Parts Identification

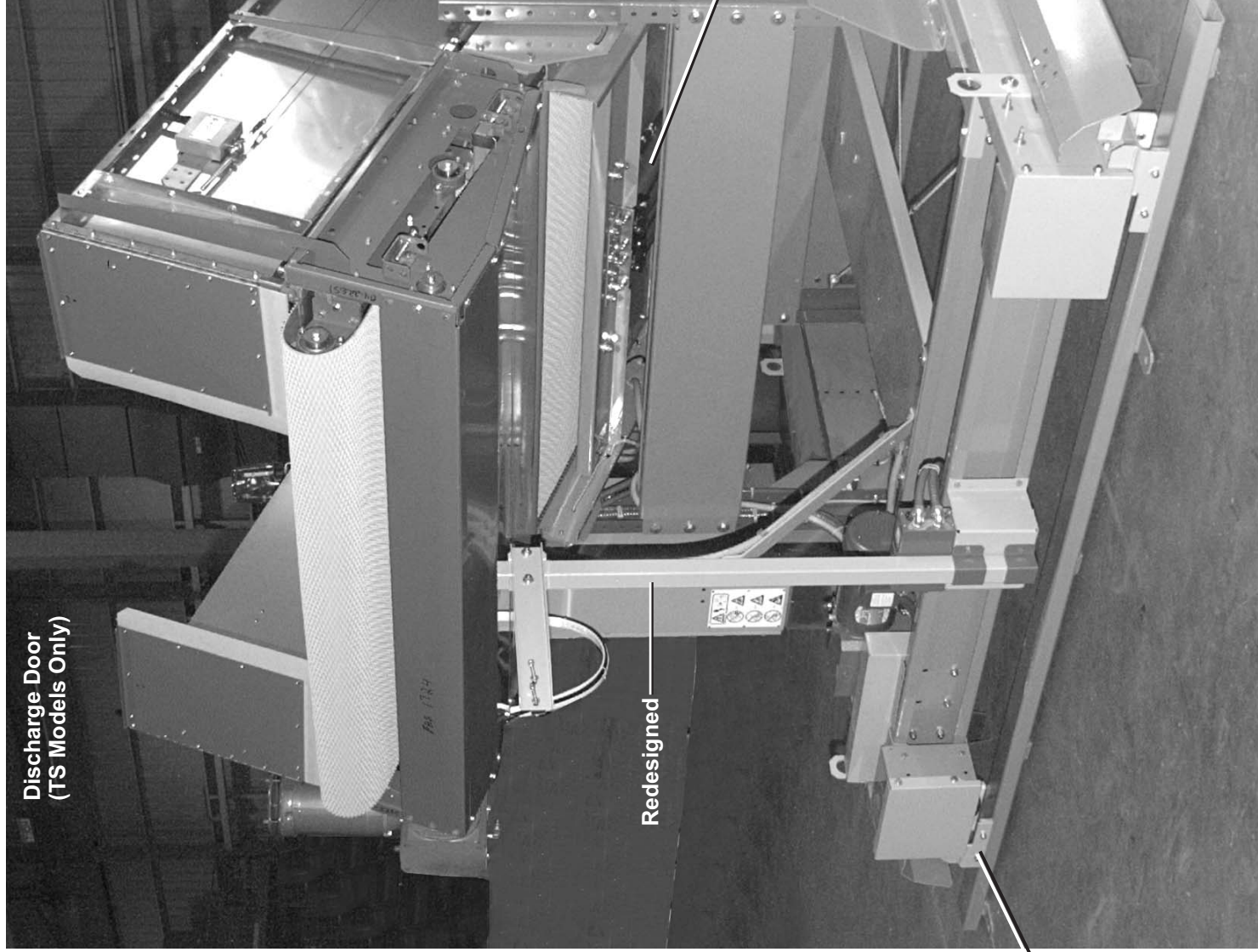
CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS

MGQCF40XXAE/2012154B
(6 / 11)



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Litho in U.S.A.



Parts Identification:

7 Cart Drive Festoon Post Assembly

53
54

Air Cylinders:
25 (8" Extension)
19 (30" Extension)
Shuttle valve
27

28 Track Guide Assembly

Parts Identification
CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS

MGQCF40XXAE/2012154B
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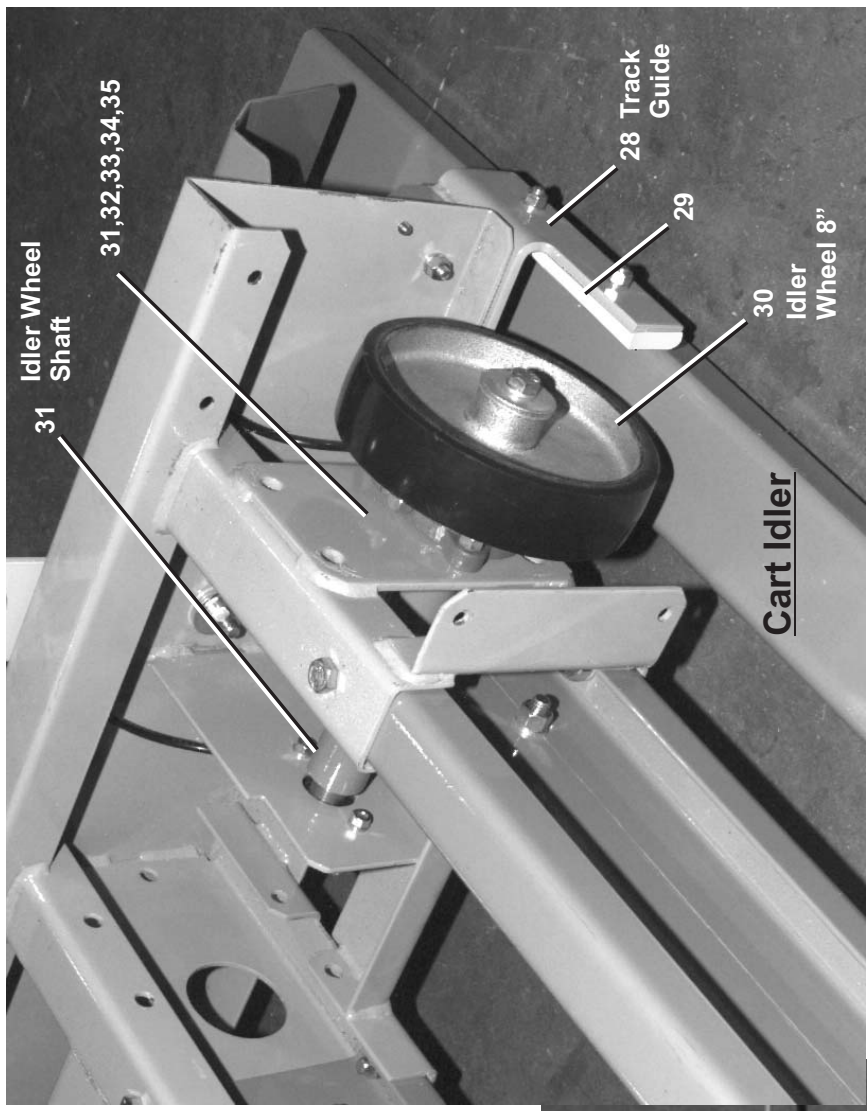
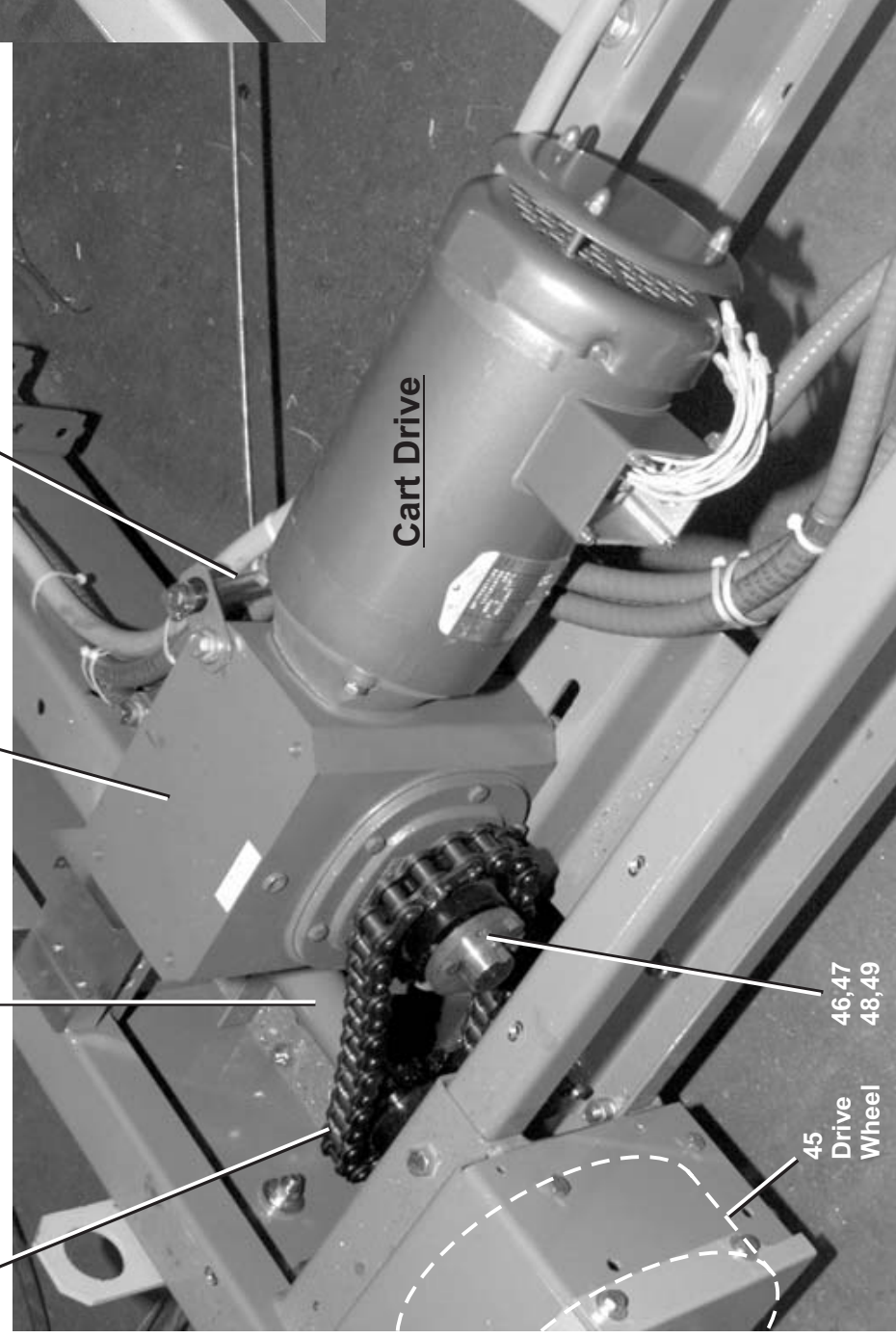
Parts
Identification:

Chain, Link
 & Guard
 42,43,44

Drive Wheel
 Shaft Assembly
 36,37,38,39,40

Reducer
 41

Oil Level
 Indicator

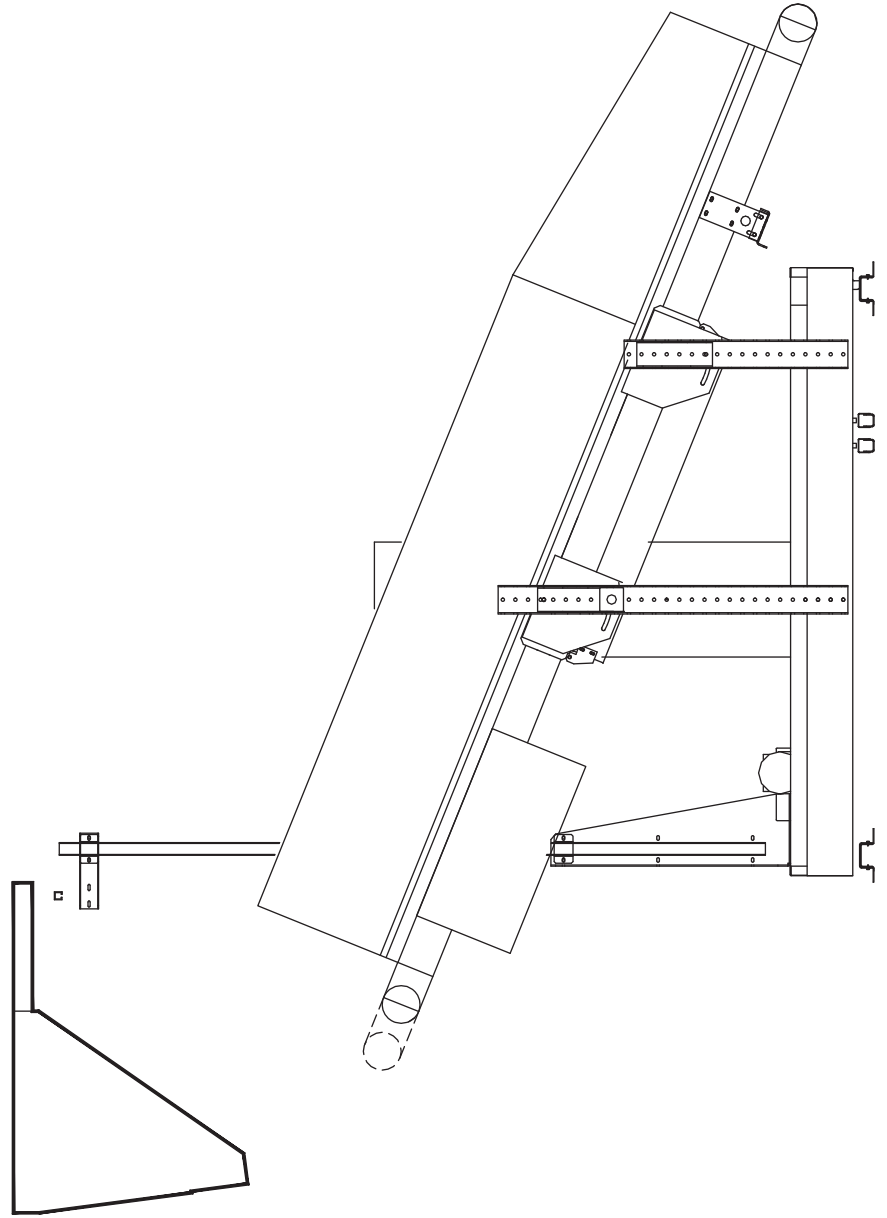
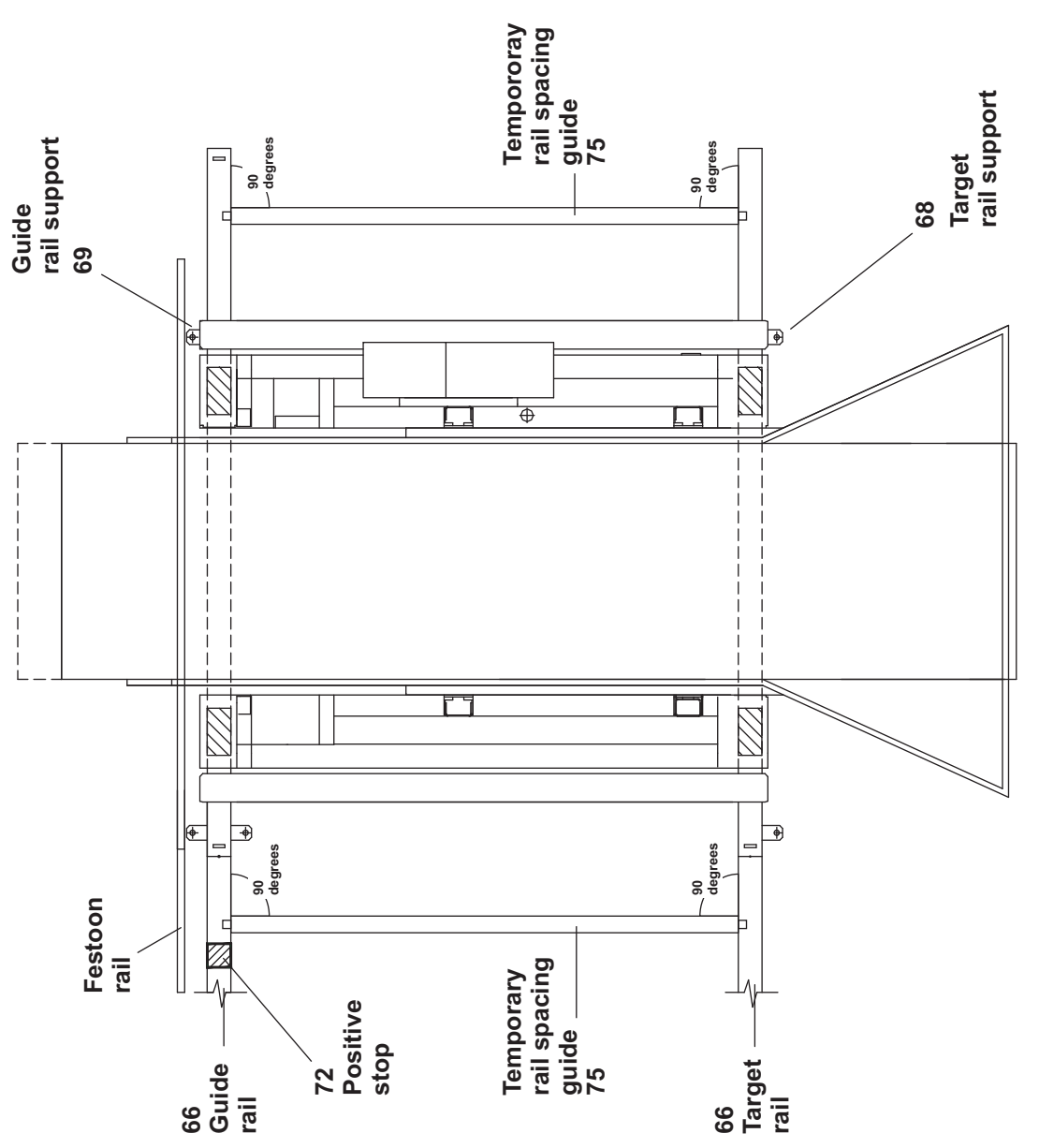
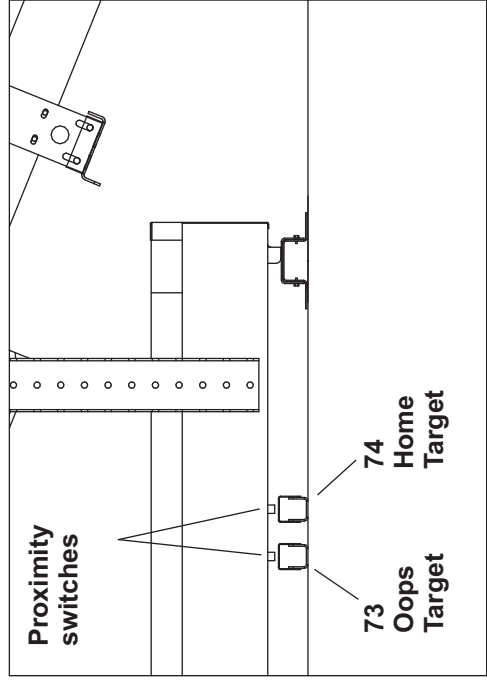
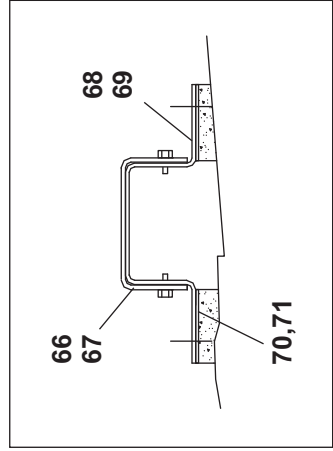




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Litho in U.S.A.

Rail Component
Identification:

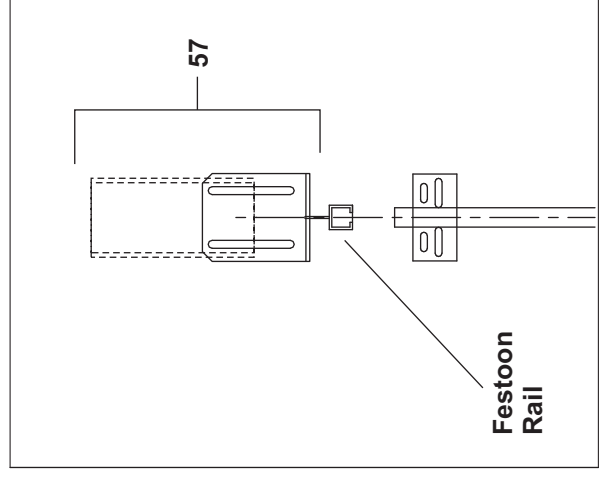
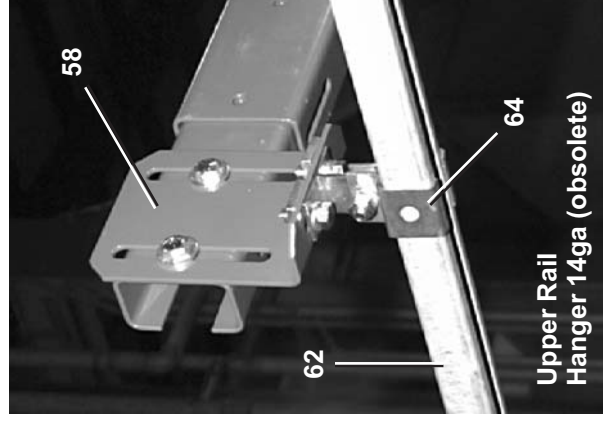
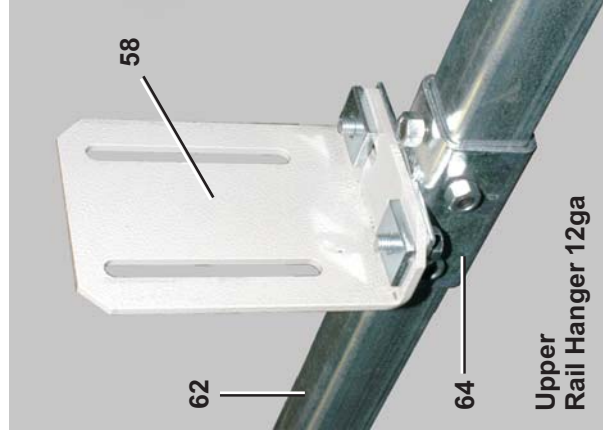
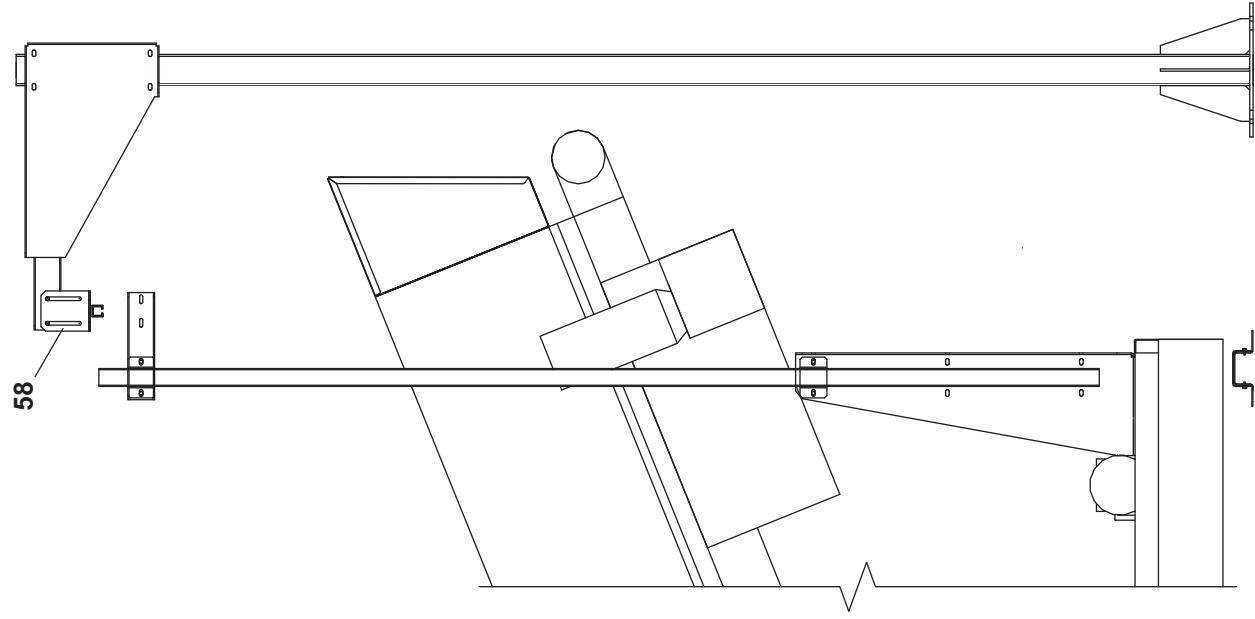




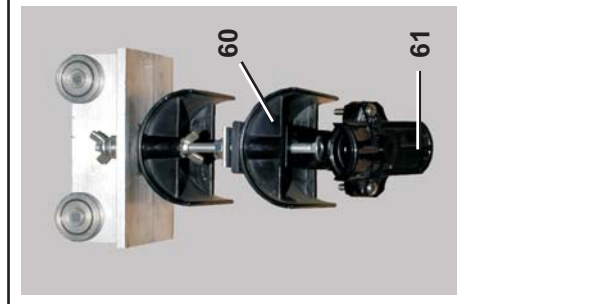
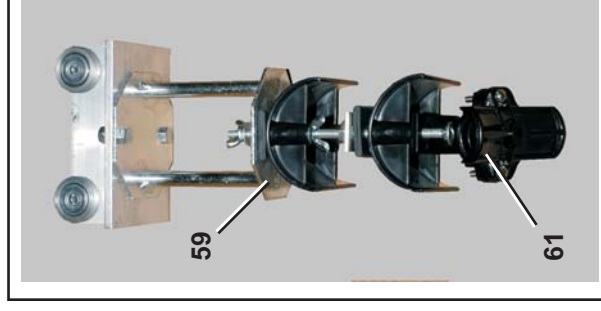
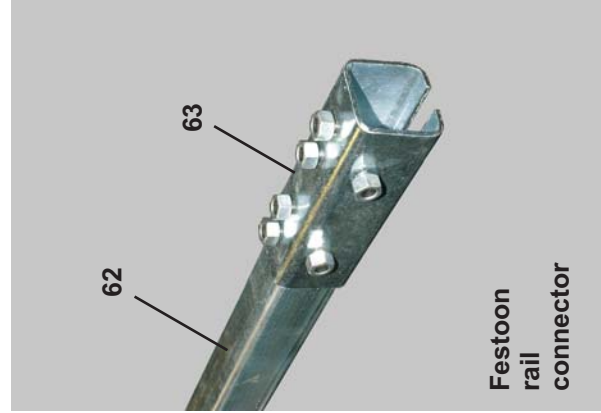
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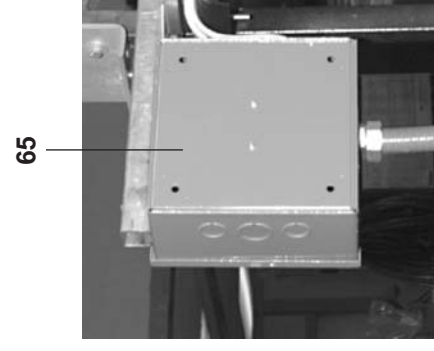
Rail Component Identification:



Festoon Rail Supports



Festoon Cars



Parts Identification

CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS



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MGQCF40XXAE/2012154B
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Used In	Item	Part Number	Description	Comments
			ASSEMBLIES-----	
	A	CF4010JS	MODEL REFERENCE	
	B	CF4010XS	MODEL REFERENCE	
	C	CF4014CS	MODEL REFERENCE	
	D	CF4014FS	MODEL REFERENCE	
	E	CF4014MS	MODEL REFERENCE	
	F	CF4016CS	MODEL REFERENCE	
	G	CF4814JS	MODEL REFERENCE	
			COMPONENTS-----	
A-F	1	ALC40068	CART DRIVE ASSY-40W SHUTL	
G	1	ALC48046	CART DRIVE ASSY-48W SHUTL	
A	2	ALC40074	BED SLIDER ASSY 30+0 40W	
C,F	2	ALC40073	BED SLIDER ASSY 0+8 40W	
D	2	ALC40071	BED SLIDER ASSY 8+8 40W	
E	2	ALC40070	BED SLIDER ASSY 30+8 40W	
G	2	ALC48045	BED SLIDER ASSY 30+0 48W	
all	3	ALC60024	KICKPLATE ASSY-CARTDR	
AB	4	ALC40020K	COSHA BED 40X126 UNLOADEN DR	
CDEF	4	ALC40020C	COSHA BED 40X174 UNDERDRIVE	
GI	4	ALC48018	BED ASSY 48WX174LG-UNDERDRIVE	
G	5	ALC420218	BED EXTENSION 3HX6LG-PAIRS	
A,C-G	6	ALC420094	AIR CYL LUBRICATOR ASSY	
all	7	ALC420111	CARTDR FESTOON POST ASSY	
AB	8	ALC40035	LOAD END IDLER ASSEMBLY-40	
CDE	8	ALC40036	UNLOAD END IDLER ASSEMBLY-40	
G	8	ALC48035	LOAD END IDLER ASSEMBLY-48	
AB	9	APC40001A	*MCS 40"ONE DRV LAG=1.43INPUT	
CDE	9	APC40004B	40"UND/DR 1DR-LAG 1.44 INPUT	
G	9	APC48005A	48"UND/DR 1DR-LAG 1.44 INPUT	
CDE	10	04 20165B	UNDERDRIVE TENSION ROLLER 40	
G	10	04 20165C	UNDERDRIVE TENSION ROLLER 48	
A-F	11	54C401	BELT 40"100 GRAY WDGEGRIP/BARE	
G	11	54C480GRY	BELT 48"100 GREY WDGEGRIP/BARE	
all	12	54G302C	CONNECTING PIN # NYS065C EA=1FT	
all	13	54G201D	CLIPPER LACE #UX-1-36S	
AB	14	54STB32640	REDUCER 40:1 SF726-40T-B5-G	
FG	14	54STB33240	REDUCER 40:1 SF732-40T-B7-G	

Parts List—Parts Identification				
Used In	Item	Part Number	Description	Comments
CDE	15	ALC40032	SHUTL 40W UNDERDRIVE 732:40	
G	15	ALC48041	48"UNDERDRIVE ASSY	
A-F	16	AIC40001	*MCS 40"IDLER ASSY	
G	16	AIC48001	*MCS 48" IDLER ASSY	
A-G	17	ALC60027	BED SLIDER CHANN ASSY	
AB	18	ALC40004C	BED FRAME COSHA 40WX108LG	
CDE	18	ALC40004D	BED FRAME COSHA 40WX156LG	
F	18	ALC40004E	BED FRAME COSHA 40WX180LG	
G	18	ALC48020B	MCS CONVEY W=48 L=156 ASSY	
G	18B	ALC48021	FLAIRSIDE 88WX16HX48L 48W	
AEG	19	27C530	AIR CYL 5"X30"X1" CLEVIS MT.	
all	20	17A045	CLEVIS PIN 3/4"X 3" DRILLED +	
all	21	15H051	STDCOTTERPIN 1/8X1+1/2ZINCPL	
all	22	15G239S	HEXJAMNUT 3/4-16UNF2 SS18-8	
all	23	17A049	YOKE END 3/4-16UNF HARD CHROME	
DE	24	17A045F	ROD EYE 3/4-16 CYC-COMP#RE-07	
CDF	25	27C508	AIR CYL 5"X8"X1" CLEVIS MT.	
DE	26	ALC40072	AIRCLY FRAME 5"DIA X 8"STK	
CDEF	27	96N0013HU	SHUTLVLV 1/4"4WAY CENTER-OFF	
all	28	ALC420101	TRACK GUIDE ASSY-COSHM	
all	29	X4 23391	TRACK SLIDER UHMW BAR	
all	30	04 20244	CART DRIVE WHEEL 8" -SHUTTLE	
all	31	X4 23268	CART IDLER WHEEL SHAFT	
all	32	04 23254	IDLER WHEEL BRNG MTG PLT	
all	33	54AF1437	FLGEBRG.HUBCITY 3-BOLT FB150URX1-7/16	
all	34	54AF10001	FLG BRG 1" BROWN#VF2S-116M (2BOLT FLG)	
all	35	54JH11000A	SHAFTCOLLAR 1" CLPTYPE CFG#16A	
all	36	ALC60025	DRIVE WHEEL/SHAFT ASSY	
all	37	X4 23267	CART DRIVE WHEEL SHAFT	
all	38	04 23260	WHEEL BRNG MTG PLATE	
all	40	54JH11437C	SHAFTCOLLAR 1.4375 CFG #23S	
all	41	54STB43260	REDUCER 60:1 F732-60-B7-G	
all	42	54G080C	ROLLCHAIN ANSI 80-1R 1"P (50FT REELS ONLY)	
all	43	54G080	CONN LINK ANSI 80 SPRING CLIP	
all	44	04 23283	CHAIN GUARD-CART DRIVE	

Parts Identification

CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS



Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

MGQCF40XXAE/2012154B
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Assembly	Item	Part Number	Description
all	45	60C509UT	WHEEL SINGLE 9"OD URETHANE
all	46	54N080P15	SPRKT B#H80P15 - NO BUSHING
all	47	56Q1GP1	1+3/8" BUSH VPUL BROWNING P1
all	48	56Q1AP1	1.0" BUSH VPUL BROWNING P1
all	49	56Q1HSK	1+7/16" BUSH VPUL QD TYPE SK
AB	50	04 22716E	CONV FLAT SIDE 21HX66LX1.06
CDE	50	04 22716G	CONV FLAT SIDE 21HX114LX1.06
F	50	04 22716C	CONV FLAT SIDE 21HX60LX1.06
G	50	04 20017B	CONVEYOR 21X48 SIDE EXT
F	51	04 22716F	CONV FLAT SIDE 21HX72LX1.06
G	51	04 20017D	CONVEYOR 21X108 SIDE EXT
E	52	04 20012E	CONVEYOR 6" X 21" SIDE EXT
CDEFG	53	04 23016	SIDE UNLOADEND 22DEG BED-RT
CDEFG	54	04 23016A	SIDE UNLOADEND 22DEG BED-LF
C	55	ALC40021	FLAIRSIDE 80WX16HX48L 40W
C	56	09H025V37	BEACON ROTARY 5.5"DIA AMBER
all	57	ALC420070C	UPPER RAIL CEILING SUPP-3.8T
all	58	ALC420070B	UPPER RAIL HANGER ASSY 3.8T
all	59	27A768	12GA FESTOON TOW TROLLEY/2SADDLES
all	60	27A756	FESTOON TROLLEY/SADDLE ASSY
all	61	27A756B	SWIVEL ADP. FOR HOSE 1.25"DIA
all	62	27A765	12GA FESTOON PARA-TRACK (12 GA.)
all	62	27A755	14GA FESTOON PARA-TRACK 10' (14 GA. OBSOLETE)
all	63	27A765A	12GA PARA-TRACK JOINT CLAMP (12 GA.)
all	63	27A755A	PARA-TRACK JOINT CLMP #FC-CH1D (14 GA. OBSOLETE)
all	64	27A765B	TRACK HANGER CLAMP ASSY (12 GA.)
all	64	27A755B	PARA-TRACK HANGER ASSY. (14 GA. OBSOLETE)
all	65	ALC420015A	FESTOON RAIL ELEC BOX ASSY
all	66	04 20712A	GUIDE RAIL 2WD CART=10FT
all	67	04 20712	TARGET RAIL 2-DRV CART=10FT
all	68	W4 23486	TARGET RAIL SUPPORT WLMT
all	69	W4 23487	RAIL SUPP WLMT-CARTDR SHUTL

Assembly	Item	Part Number	Description	Comments
all	70	04 21664B	SHIM-FLOORAIL SUPPORT=7GA	
all	71	04 21664C	SHIM-FLOORAIL SUPPORT=16GA	
all	72	04 23358	SHUTL RAIL POS STOP (COLOR=WARM GRAY)	
all	73	ALC420107	OOPS TARGET FLOOR MTG ASSY	
all	74	ALC420106	HOME TARGET FLOOR MTG ASSY	
all	75	04 21199	RAILS SPACING GAGE=85.00"	

Expanded Parts List

CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS



Pellerin Milnor Corporation
P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

MLQCF40XXAE/2012154B
(1 / 8)

Assembly	Item	Part Number	Description
AIC40001	MCS 40" IDLER ASSY		
	10	15H040	STDCOTTERPIN 1/8X3/4 ZINCPL
	20	04 20035A	MCS 40" IDLER ROLLER
	30	54A712	FLGBR 1/2"ID SCHATZ# AF3236
	40	04 20034A	MCS 40" IDLER SHAFT
	50	15U312	HARD FWASH 3/4ODX33/64IDX.115
AIC48001	*MCS 48" IDLER ASSY		
	10	15H040	HARD FWASH 3/4ODX33/64IDX.115
	20	04 20035	MCS 48" ROLLER
	30	54A712	FLGBR 1/2"ID SCHATZ# AF3236
	40	04 20034	MCS 48" IDLER SHAFT
	50	15U312	HARD FWASH 3/4ODX33/64IDX.115
ALC40004C	BED FRAME COSHA 40WX108LG		
	10	15A011	CARBOLT 3/8-16UNC2X1 ZINC GR2
	11	15P200	TRDCUT-F HXWASHD 3/8-16X3/4NIK
	20	15G205	HXNUT 3/8-16UNC2B ZINC GR2
	30	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL
	40	15U240	LOCKWASHER MEDIUM 3/8 ZINCPL
	60	15N176	FLATMACSCR 1/4-20NCX3/4SS18-8
	70	15G166A	HXLOKNUY 1/4-20 UNC2A STLZ
	80	15G304	HEXCOUPLINGNUT 3/8-16UNC ZINC
	90	04 20003	MCS 108" SIDE MEMBER
	100	04 20004A	MCS 40" CROSS MEMBER
	110	04 20023A	MCS MOD CONN BKT RIGHT END
	120	04 20024	MCS CROSS MEMBER CONN BKT
	130	04 20023B	MCS MOD CONN BKT LEFT END
	150	04 23082	CONV BED HALF 40WX54L
	151	04 22311A	BED HALF STIFFENER-40/42W
	160	04 23094	CONV SIDE 3.00X1.06X108L
	170	17R021	THRDRD ROD 3/8-16X12'LG ZINC
	180	04 20118	TIE ROD STRAP
	181	15U490	FLTWASH 1+1/2X17/32X1/4 ZINC
	190	12P11PHP	HOLEPLUG 1+3/4" BLK HEYCO#2773
	200	60F125	UHMW POLYMER STRIP 1+1/2"X1/4"
	210	04 21687	BED SUPPORT X-MEMBER-40W
ALC40004D	BED FRAME COSHA 40WX156LG		
	10	15A011	CARBOLT 3/8-16UNC2X1 ZINC GR2
	11	15P200	TRDCUT-F HXWASHD 3/8-16X3/4NIK
	20	15G205	HXNUT 3/8-16UNC2B ZINC GR2
	30	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL
	40	15U240	LOCKWASHER MEDIUM 3/8 ZINCPL
	60	15N176	FLATMACSCR 1/4-20NCX3/4SS18-8
	70	15G166A	HXLOKNUY 1/4-20 UNC2A STLZ
	80	15G304	HEXCOUPLINGNUT 3/8-16UNC ZINC
	90	04 20003	MCS 108" SIDE MEMBER
	100	04 20004A	MCS 40" CROSS MEMBER
	110	04 20023A	MCS MOD CONN BKT RIGHT END
	120	04 20024	MCS CROSS MEMBER CONN BKT
	130	04 20023B	MCS MOD CONN BKT LEFT END
	150	04 23082	CONV BED HALF 40WX54L
	151	04 22311A	BED HALF STIFFENER-40/42W
	160	04 23094	CONV SIDE 3.00X1.06X108L
	170	17R021	THRDRD ROD 3/8-16X12'LG ZINC
	180	04 20118	TIE ROD STRAP
	181	15U490	FLTWASH 1+1/2X17/32X1/4 ZINC
	190	12P11PHP	HOLEPLUG 1+3/4" BLK HEYCO#2773
	200	60F125	UHMW POLYMER STRIP 1+1/2"X1/4"
	210	04 21687	BED SUPPORT X-MEMBER-40W

Assembly	Item	Part Number	Description	Comments
	50	15N176	FLATMACSCR 1/4-20NCX3/4SS18-8	
	60	15G166A	HXLOKNUY 1/4-20 UNC2A STLZ	
	70	15G304	HEXCOUPLINGNUT 3/8-16UNC ZINC	
	80	17R021	THRDRD ROD 3/8-16X12'LG ZINC	
	90	04 20001	MCS 48" SIDE MEMBER	
	100	04 20003	MCS 108" SIDE MEMBER	
	110	04 20004A	MCS 40" CROSS MEMBER	
	120	04 20023A	MCS MOD CONN BKT RIGHT END	
	130	04 20023B	MCS MOD CONN BKT LEFT END	
	140	04 20024	MCS CROSS MEMBER CONN BKT	
	150	04 20023	MCS CROSS MEMBER CONN BKT	
	170	04 23082	CONV BED HALF 40WX54L	
	171	04 22311A	BED HALF STIFFENER-40/42W	
	180	04 23084	CONV BED FULL 40WX48L	
	190	04 23094	CONV SIDE 3.00X1.06X108L	
	200	04 23096	CONV SIDE 3.00X1.06X108L	
	210	04 20118	TIE ROD STRAP	
	221	15U490	FLTWASH 1+1/2X17/32X1/4 ZINC	
	230	12P11PHP	HOLEPLUG 1+3/4" BLK HEYCO#2773	
	240	60F125	UHMW POLYMER STRIP 1+1/2"X1/4"	
	250	04 21687	BED SUPPORT X-MEMBER-40W	
	260	04 21278	BED FRAME SPLICE PLATE	
ALC40004E		BED FRAME COSHA 40WX180LG		
	10	15A011	CARBOLT 3/8-16UNC2X1 ZINC GR2	
	11	15P200	TRDCUT-F HXWASHD 3/8-16X3/4NIK	
	20	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
	30	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
	40	15U240	LOCKWASHER MEDIUM 3/8 ZINCPL	
	50	15N176	FLATMACSCR 1/4-20NCX3/4SS18-8	
	60	15G166A	HXLOKNUY 1/4-20 UNC2A STLZ	
	70	15G304	HEXCOUPLINGNUT 3/8-16UNC ZINC	
	80	17R021	THRDRD ROD 3/8-16X12'LG ZINC	
	90	04 20001	MCS 48" SIDE MEMBER	
	100	04 20003	MCS 108" SIDE MEMBER	
	105	04 20000	MCS 24" SIDE MEMBER	
	110	04 20004A	MCS 40" CROSS MEMBER	
	120	04 20023A	MCS MOD CONN BKT RIGHT END	
	130	04 20023B	MCS MOD CONN BKT LEFT END	
	140	04 20024	MCS CROSS MEMBER CONN BKT	
	150	04 20023	MCS MOD SECTION CONN BKT	
	170	04 23082	CONV BED HALF 40WX54L	
	171	04 22311A	BED HALF STIFFENER-40/42W	
	180	04 23084	CONV BED FULL 40WX48L	
	185	04 23090A	CONV BED FULL 40WX24L	
	190	04 23094	CONV SIDE 3.00X1.06X108L	
	200	04 23096	CONV SIDE 3.00X1.06X48L	
	205	04 23096B	CONV SIDE 3.00X1.06X24L	
	210	04 20118	TIE ROD STRAP	
	221	15U490	FLTWASH 1+1/2X17/32X1/4 ZINC	

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Parts List		
Assembly	Item	Part Number Description
	230	12P11PHP HOLEPLUG 1+3/4" BLK HEYCO#2773
	240	60F125 UHMW POLYMER STRIP 1+1/2"X1/4"
	250	04 21687 BED SUPPORT X-MEMBER-40W
	260	04 22626A SIDE MEMBER CONNECTING CHANN
	270	04 22626D 40W BED CONNECTING ANGLE
	280	04 21278 BED FRAME SPLICE PLATE
ALC40020C		COSHA BED 40X174 UNDERDRIVE
	10	ALC40004D
	20	W4 22609A *PIPE X-BRACE=40WIDE-WLMT
	30	04 21687 BED SUPPORT X-MEMBER-40W
	40	04 21425 BED EXTN-LF UNLOAD/RT LOAD
	50	04 21425A BED EXTN-RT UNLOAD/LF LOAD
	60	04 21425H BED EXTENSION END COVER
	70	04 22716G CONV FLAT SIDE 21HX114LX1.06
	80	04 21433 BKT-SIDE PANEL MTG-RT FRT
	90	04 21433A BKT-SIDE PANEL MTG-LF FRT
	100	ALC40048 BELT SIDE GUARD DISC.END 21"H
	110	ALC40032 SHUTL 40W UNDERDRIVE 732:40
	130	ALC40036 UNLOAD END IDLER ASSEMBLY-40
	150	54C401 BELT 40"100 GRAY WDGEGRIP/BARE
	160	54G302C CONNECTING PIN # NYS065C EA=1FT
	170	54G201D CLIPPER LACE #UX-1-36S
	200	04 24033 BED FESTOON CONN.BOX MTG BKT
	210	04 23016 SIDE UNLOADEND 22DEG BED-RT
	220	04 23016A SIDE UNLOADEND 22DEG BED-LF
	230	04 21349A SIDE EXT SPLICE ANGLE-1"W
ALC40020K		COSHA BED 40X126 UNLOADEN DR
	10	ALC40004C
	20	W4 22609A *PIPE X-BRACE=40WIDE-WLMT
	30	17R021 THRD ROD 3/8-16X12'LG ZINC
	40	04 21687 BED SUPPORT X-MEMBER-40W
	50	04 21425 BED EXTN-LF UNLOAD/RT LOAD
	60	04 21425A BED EXTN-RT UNLOAD/LF LOAD
	70	04 21425H BED EXTENSION END COVER
	80	04 22716E CONV FLAT SIDE 21HX66LX1.06
	90	04 21433 BKT-SIDE PANEL MTG-RT FRT
	100	04 21433A BKT-SIDE PANEL MTG-LF FRT
	110	ALC40048 BELT SIDE GUARD DISC.END 21"H
	120	ALC40031 UNLOAD END DRIVE 6X40 726:40
	130	ALC40035 LOAD END IDLER ASSEMBLY-40
	140	54C401 BELT 40"100 GRAY WDGEGRIP/BARE
	150	54G302C CONNECTING PIN # NYS065C EA=1FT
	160	54G201D CLIPPER LACE #UX-1-36S
	170	04 24033 BED FESTOON CONN.BOX MTG BKT
ALC40032		SHUTL 40W UNDERDRIVE 732:40
	10	15K095 HXCPSCR 3/8-16UNC2AX1 GR5 ZINC

Parts List, cont.		
Assembly	Item	Part Number Description
	20	15U255 LOCKWASHER MEDIUM 3/8 ZINCPL
	30	15U240 FLATWASHER(USS STD) 3/8" ZNC P
	40	15G205 HXNUT 3/8-16UNC2B ZINC GR2
	50	15A063 CARBOLT 1/2-13UNC2X1.50 ZINC G
	60	15K162 HXCAPSCR 1/2-13UNC2AX1.5 GR5 P
	70	15U300 LOKWASHER REGULAR 1/2 ZINC PLT
	80	15U286 FLATWASHER 2"0DX17/32"IDX1/4"
	90	15G230 HXNUT 1/2-13UNC2B SAE ZINC GR2
	100	17R026A21A THREAD ROD .75X21LG ZNC PLTD
	110	04 20989 SLEEVE=TIE ROD BRKT HOLDER
	120	15G240 HXNUT 3/4-10UNC2B SAE ZINC GR2
	130	15U340 LOCKWASH MEDIUM 3/4 ZINCPL
	140	15U445 FLATWASH 1.453"X2"OD.X.060THK.
	150	15K143B HEXCAPSCR 7/16-14UNCX1"GR5 ZIN
	160	15U278 LOCKWASHER MEDIUM 7/16 ZINCPL
	170	15U276S FLTWSHR.475ID.656OD 22GA 18-8S
	200	04 20160D UNDERDRIVE SUPP BRKT-LF
	210	04 20160E UNDERDRIVE SUPP BRKT-RT
	220	04 20161B TENSION ROLLER ADJ BRKT-LF
	230	04 20161C TENSION ROLLER ADJ BRKT-RT
	240	04 20161D TENSION ROLLER BACKING PLATE
	250	04 20165B UNDERDRIVE TENSION ROLLER 40
	260	54AF1437 FLGEBRG.HUBCITY 3-BOLT FB150URX1-7/16
	270	56F1H2CSWC FLG BRG=1.438 B.D.+COLLAR
	280	54M010 GRSFT 1/4-28NF90 ALEMITE1911B
	290	APC40004B 40"UND/DR 1DR-LAG 1.44 INPUT
	300	54STB33240 REDUCER 40:1 SF732-40T-B7-G
	301	15E229 MACHINE KEY .375X.375X7.00LG
	310	54JH11437C SHAFTCOLLAR 1.4375 CFG #23S
	320	04 20164U UNDERDRIVE TORQ.ARM=RT #732
	330	ALC420063 TORQUE ARM BUSHING ASSEMBLY
ALC40035		LOAD END IDLER ASSEMBLY-40
	10	15A012 CARBOLT 3/8-16UNC2AX1+1/4 ZNC
	20	15G218 HXLOKNUT NYL 3/8-16 STL/ZNC
	30	15A075 CARBOLT 5/8-11UNC2X1 3/4 ZINC
	40	15G238 HXNUT 5/8-11UNC2B SAE ZINC GR2
	50	15U314 FLATWASHER(USS STD) 5/8" ZNC P
	60	15U315 LOKWASHER MEDIUM 5/8 ZINCPL
	70	15D122C HEXTAPSCR 1/2-13UNC 8.5 FLTHD
	80	02 19283 NUT=1/2-13UNCX1+1/2SQ SPEC
	90	15K147 HXCAPSCR 1/2-13UNC2X1 GR5 ZINC
	100	15U286 FLATWASHER 2"0DX17/32"IDX1/4"
	110	15U300 LOKWASHER REGULAR 1/2 ZINC PLT
	120	15U445 FLATWASH 1.453"X2"OD.X.060THK.
	130	17N079 CLINCH NUT 1/2-13 STL/ZNC
	140	15K203 HXTAPSCR TFL 1/2-13X5 GR5 ZINC
	150	15U280 FL+WASHER(USS STD)1/2 ZNC PL+D
	160	15G230 HXNUT 1/2-13UNC2B SAE ZINC GR2
	170	X4 22392 ROLLER 6X40W IDLER MACH

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Parts List			
Assembly	Item	Part Number	Description
	180	04 21412B	BRNGCARR-NO TORQARM-22"LG
	190	04 22714A	BRG CARRIER ADJUSTING BKT
	200	54AF1437	FLGEBRG.HUBCITY 3-BOLT FB150URX1-7/16
	210	54M010	GRSFIT 1/4-28NF90 ALEMITE1911B
ALC40036	UNLOAD END IDLER ASSEMBLY-40		
	10	15K105	HXCAPSCR 3/8-16UNC2A1.25 GR5 P
	20	15G218	HXLOKNUT NYL 3/8-16 STL/ZNC
	30	15K226H	HXCAPSCR 5/8-11X1 1/4 GR5 ZN
	40	15G238N	HXLOKNUT NYL 5/8-11UNC STL/
	50	15U314	FLATWASHER(USS STD) 5/8" ZNC P
	60	15U286	FLATWASHER 2"0DX17/32"DX1/4"
	70	15D122C	HEXTAPSCR 1/2-13UNC 8.5 FLTHD
	80	15G222B	HEXFLGNUT 1/2-13 ZINC SERRATED
	90	15K147	HXCAPSCR 1/2-13UNC2X1 GR5 ZINC
	120	15U445	FLATWASH 1.453"X2"OD.X.060THK.
	130	X4 22392	ROLLER 6X40W IDLER MACH)
	140	W4 21412C	BRNGCARR IDLER-SHUTTLE BED
	150	04 22392	BRG CARRIER ADJUSTING BKT
	160	54AF1437	FLGEBRG.HUBCITY 3-BOLT FB150URX1-7/16
	170	54M010	GRSFIT 1/4-28NF90 ALEMITE1911B
ALC40068	CART DRIVE ASSY-40W SHUTTL		
	10	W4 23245	CART FRAME WLMT-DRIVE SIDE
	20	W4 23246	CART FRAME WLMT-IDLER SIDE
	30	04 21347	CARTDR FRAME X-MEMBER 40W
	40	04 23248	CART MID FRAME BRACE
	60	04 23264	WHEEL COVER MTG BRKT
	80	04 23266	WHEEL COVER-CARTDRIVE
	90	ALC420101	TRACK GUIDE ASSY-COSHM
	110	ALC60025	DRIVE WHEEL/SHAFT ASSY
	120	ALC60026	IDLER WHEEL/SHAFT ASSY
	140	04 23061	CONVEY SUPPORT 4.5"WX35.5"L
	150	04 23061A	CONVEY SUPPORT 4.5"WX55.5"L
	160	04 23270	BED SLIDER MTG PLATE
	170	04 23271	BED SLIDER LEG ADAPTER
	180	04 21348	LEG X-BRACE 40W CARTDR
	200	04 23250	SHIPPING STAND-CARTDRIVE
	210	04 23251	CONTROL BOX BASE-CARTDR
	220	04 23252	CONTROL BOX TIE-IN BRKT
	230	04 23299	LOADEND LEG MTG-CARTDR
	240	04 22832	CART FRAME LIFTING PL-CF6014
	250	04 20242	CARTDR FESTOON BASE
ALC40070	BED SLIDER ASSY 30+8 40W		
	10	04 20266	BED SLIDER SUPP 5"AIRCYL-RT
	15	04 20266A	BED SLIDER SUPP 5"AIRCYL-LF
	20	ALC60027	BED SLIDER CHANN ASSY
	70	ALC40072	BUCKET SUPPORT ASSEMBLY

Parts List, cont.			
Assembly	Item	Part Number	Description
	80	04 21448A	BKT-AIR CYL MTG-REAR-COSLIDE
	90	04 21449	AIR CYL ADJUSTING BRACKET
	100	04 21449A	AIR CYLINDER ADJ BRKT-19.5"L
	110	04 20267	REAR 5"DIA AIRCYL MTG PLATE
	130	W4 21450	*AIR CYL CLEVIS MTG WELDMENT
	140	27C530	AIR CYL 5"X30"X1" CLEVIS MT.
	143	27C508	AIR CYL 5"X8"X1" CLEVIS MT.
	150	17A045	CLEVIS PIN 3/4"X 3" DRILLED +
	160	15H051	STDCOTTERPIN 1/8X1+1/2ZINCPL
	170	15G239S	HEXJAMNUT 3/4-16UNF2 SS18-8
	180	17A049	YOKE END 3/4-16UNF HARD CHROME
	182	17A045F	ROD EYE 3/4-16 CYC-COMP#RE-07
	190	04 20032	MCS IDLER BKT RIGHT
	200	04 20033	MCS IDLER BKT LEFT
	210	AIC40001	*MCS 40"IDLER ASSY
	220	04 20269	BED STOP PROX.SW BRKT
	230	04 24129	BED EXT/RETRACT TARGET
	240	96N0013HU	SHUTLVLV 1/4"4WAY CENTER-OFF
ALC40071	BED SLIDER ASSY 8+8 40W		
	10	04 20266	BED SLIDER SUPP 5"AIRCYL-RT
	15	04 20266A	BED SLIDER SUPP 5"AIRCYL-LF
	20	ALC60027	BED SLIDER CHANN ASSY
	30	ALC40072	AIRCLY FRAME 5"DIA X 8"STK
	80	04 21448A	BKT-AIR CYL MTG-REAR-COSLIDE
	90	04 21449	AIR CYL ADJUSTING BRACKET
	100	04 21449A	AIR CYLINDER ADJ BRKT-19.5"L
	110	04 20267	REAR 5"DIA AIRCYL MTG PLATE
	130	W4 21450	AIR CYL CLEVIS MTG WELDMENT
	140	27C508	AIR CYL 5"X8"X1" CLEVIS MT.
	150	17A045	CLEVIS PIN 3/4"X 3" DRILLED +
	160	15H051	STDCOTTERPIN 1/8X1+1/2ZINCPL
	170	15G239S	HEXJAMNUT 3/4-16UNF2 SS18-8
	180	17A049	YOKE END 3/4-16UNF HARD CHROME
	182	17A045F	ROD EYE 3/4-16 CYC-COMP#RE-07
	190	04 20032	MCS IDLER BKT RIGHT
	200	04 20033	MCS IDLER BKT LEFT
	210	AIC40001	*MCS 40"IDLER ASSY
	220	04 20269	BED STOP PROX.SW BRKT
	230	04 20269	BED STOP PROX.SW BRKT
	230	96N0013HU	SHUTLVLV 1/4"4WAY CENTER-OFF
ALC40072	AIRCLY FRAME 5"DIA X 8"STK		
	10	04 20262	AIRCYL FRAME MTG CHANNEL 40W
	20	04 20263	AIRCYL FRAME TOP COVER 40W
	30	04 20264	AIRCYL FRAME SIDE COVER
	40	04 20265	AIRCYL FRAME BOTTOM PLATE
	50	04 20268	AIRCYL GUIDING CHANNEL
	60	15A011	CARBOLT 3/8-16UNC2X1 ZINC GR2
	70	15K095	HXCPSCR 3/8-16UNC2AX1 GR5 ZINC
	80	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL5

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Parts List		
Assembly	Item	Part Number Description
	90	15G205 HXNUT 3/8-16UNC2B ZINC GR2
	100	15K039 HXCAPSCR 1/4-20UNC2AX3/4 GR5 Z
	110	15U180 LOCKWASHER MEDIUM 1/4 ZINCPL
	120	15G165 HXNUT 1/4-20UNC2BSAE ZC GR2
	130	04 20236 TRACK GUIDE MTG BRKT
ALC40073	BED SLIDER ASSY 0+8 40W	
	10	04 20266 BED SLIDER SUPP 5" AIRCYL-RT
	15	04 20266A BED SLIDER SUPP 5" AIRCYL-LF
	20	ALC60027 BED SLIDER CHANN ASSY
	30	04 20263 AIRCYL FRAME TOP COVER 40W
	80	04 21448A BKT-AIR CYL MTG-REAR-COSLIDE
	90	04 21449 AIR CYL ADJUSTING BRACKET
	100	04 21449A AIR CYLINDER ADJ BRKT-19.5"L
	110	04 20267 REAR 5"DIA AIRCYL MTG PLATE
	140	27C508 AIR CYL 5"X8"X1" CLEVIS MT.
	150	17A045 CLEVIS PIN 3/4"X 3" DRILLED +
	160	15H051 STDCOTTERPIN 1/8X1+1/2ZINCPL
	170	15G239S HEXJAMNUT 3/4-16UNF2 SS18-8
	180	17A049 YOKE END 3/4-16UNF HARD CHROME
	190	04 20032 MCS IDLER BKT RIGHT
	200	04 20033 MCS IDLER BKT LEFT
	210	AIC40001 MCS 40"IDLER ASSY
	220	04 20269 BED STOP PROX.SW BRKT
	230	04 24129 BED EXT/RETRACT TARGET
	240	96N0013HU SHUTTLV 1/4"4WAY CENTER-OFF
ALC40074	BED SLIDER ASSY 30+0 40W	
	10	04 20266 BED SLIDER SUPP 5" AIRCYL-RT
	15	04 20266A BED SLIDER SUPP 5" AIRCYL-LF
	20	ALC60027 BED SLIDER CHANN ASSY
	80	04 21448A BKT-AIR CYL MTG-REAR-COSLIDE
	90	04 21449 AIR CYL ADJUSTING BRACKET
	100	04 21449A AIR CYLINDER ADJ BRKT-19.5"L
	110	04 20267 REAR 5"DIA AIRCYL MTG PLATE
	140	27C530 AIR CYL 5"X30"X1" CLEVIS MT.
	150	17A045 CLEVIS PIN 3/4"X 3" DRILLED +
	160	15H051 STDCOTTERPIN 1/8X1+1/2ZINCPL
	170	15G239S HEXJAMNUT 3/4-16UNF2 SS18-8
	180	17A049 YOKE END 3/4-16UNF HARD CHROME
	190	04 20032 MCS IDLER BKT RIGHT
	200	04 20033 MCS IDLER BKT LEFT
	210	AIC40001 *MCS 40"IDLER ASSY
	220	04 20269 BED STOP PROX.SW BRKT
	230	04 24129 BED EXT/RETRACT TARGET
ALC420015A	FESTOON RAIL ELEC BOX ASSY	
	20	04 22847B FIXED FESTOON MTG FLATBAR
	21	15A011 CARBOLT 3/8-16UNC2X1 ZINC GR2

Parts List, cont.		
Assembly	Item	Part Number Description
	22	15G198 HXFLGNUT 3/8-16 ZINC
	30	03 E8X8X4 ENCL=JUNCTION BOX SHUTTLE
	40	15A009 CARBOLT 5/16-18NC2X3.5 FULTHD
	50	15U210 LOKWASHER MEDIUM 5/16 ZINCPL
	60	15G193 HEXLOKNUIT 5/16-18UNC2A NYL STL
	70	15K039 HXCAPSCR 1/4-20UNC2AX3/4 GR5 Z
	80	15U180 LOCKWASHER MEDIUM 1/4 ZINCPL
	90	15G165 HXNUT 1/4-20UNC2BSAE ZC GR2
	100	03 C8X8X1 COVER PLATE
	110	09B002GYD IEC TERM BLOCK 600V #26-10GRND
	120	09B002END IEC TERM BLOCK END STOP
	130	09B102 MKRSTP FIB.4STA 300V #X20504BF
	140	09BB004SWQ TERMSTRIP 4-STA. SCREWED 600V
	150	09VFF0814C CONN.14/8 CABL DOW #FC-816C2
	160	09VFF0814E CONN.14/8 CABLE DOW#FC816C4
	170	09B002GA8 IEC TERM BLOCK 600V 22-6# GRAY
	180	12P40MARK IEC MARKER A/B #1492-MS5X9
	190	09B002INSE IEC TERM BLOCK INSULATION END
	200	01 10375 NPLTE."WARNING" 2X2
	210	03 BV108X DINRAIL 8 RAIL
ALC420070B	UPPER RAIL HANGER ASSY 3.8T	
	10	15K085 HXCAPSCR 3/8-16UNC2AX3/4 GR5
	20	15K141A HXCAPSCR 3/8-16UNC2A X5.5" GR
	30	15U240 FLATWASHER(USS STD) 3/8" ZNC P
	40	15U255 LOCKWASHER MEDIUM 3/8 ZINCPL
	50	15G205 HXNUT 3/8-16UNC2B ZINC GR2
	60	15D122C HEXTAPSCR 1/2-13UNC 8.5 FLTHD
	70	15U300 LOKWASHER REGULAR 1/2 ZINC PLT
	80	15U280 FL+WASHER(USS STD)1/2 ZNC PL+D
	90	15G230 HXNUT 1/2-13UNC2B SAE ZINC GR2
	100	15G231 HXFINJAMNUT 1/2-13UNC2B ZINC G
	110	04 22815B RAIL HANGER BASE
	120	04 22815C RAIL HANGER-LIGHT RAIL
	130	04 22852 RAIL HANGER CLAMP
	140	04 22815D RAIL HOLD DOWN BRKT
ALC420070C	UPPER RAIL CEILING SUPP-3.8T	
	10	15K095 HXCPCSR 3/8-16UNC2AX1 GR5 ZINC
	20	15U255 LOCKWASHER MEDIUM 3/8 ZINCPL
	30	15U266 FLATWASHER 1"0DX7/16"IDX3/16"
	40	15G205 HXNUT 3/8-16UNC2B ZINC GR2
	50	04 22852A CEILING SUPPORT CHANN=10"LG
	60	04 22852B CEILING SUPPORT BRKT
	70	ALC420070B UPPER RAIL HANGER ASSY 3.8T
ALC420094	AIR CYL LUBRICATOR ASSY	
	10	30N600 1/2" AIRLINE LUBE PARK#07L35BE
	20	07 20920 OIL HOLDER BKT
	30	96N0013HU OIL HOLDER BKTU

Expanded Parts List
CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS



Pellerin Milnor Corporation
 P. O. Box 400, Kenner, LA 70063-0400

Litho in U.S.A.

MLQCF40XXAE/2012154B
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Parts List		
Assembly	Item	Part Number Description
	31	27A005A MUFFLER 1/4"ALLIED B-28 BANTAM
	32	53A031B BODY-EL90MALE.25X1/8 #269C-42B
	33	53A040B BODY=EL90MALE5/16X.25#B69A-5B
	34	53A023 MALECON3/8X.25COMP ANCHR#68-64
	40	20H035 MARVEL MYSTY.OIL-5GAL PAIL
	50	5SB0K0EBEO NPTEXBUSH 1/2X1/4 BRASS 125#
ALC420101		TRACK GUIDE ASSY-COSHM
	10	04 20235 TRACK GUIDE CHANNEL-CARTDRIVE
	11	04 20236 TRACK GUIDE MTG BRKT
	20	X4 23391 TRACK SLIDER UHMW BAR
	30	04 20850S SHIM-SLIDE PAD COSHA
	40	27B25002SZ SPCRROLL.39ID.125L.048T STLZNC
	50	15K110 HEXCAPSCR 3/8-16UNC2AX1.5 GR5-
	60	15U200 FLATWASHER(USS STD) 5/16"ZNC P
	70	15U266 FLATWASHER 1"0DX7/16"IDX3/16"
	80	15U255 LOCKWASHER MEDIUM 3/8 ZINCPL
	90	15G218 HXLOKNUIT NYL 3/8-16 STLZNC
	100	15A011 CARBOLT 3/8-16UNC2X1 ZINC GR2
	110	15K095 HXCPSCR 3/8-16UNC2AX1 GR5 ZINC
ALC420106		HOME TARGET FLOOR MTG ASSY
	10	04 23416 FLOOR MTG TARGET-BASE
	20	04 23416A HOME TARGET-COSHM
	30	15A011 CARBOLT 3/8-16UNC2X1 ZINC GR2
	40	15U240 FLATWASHER(USS STD) 3/8" ZNC P
	50	15G205 HXNUT 3/8-16UNC2B ZINC GR2
ALC420107		OOPS TARGET FLOOR MTG ASSY
	10	04 23416 FLOOR MTG TARGET-BASE
	20	04 23416B OOPS TARGET-COSHM
	30	15A011 CARBOLT 3/8-16UNC2X1 ZINC GR2
	40	15U240 FLATWASHER(USS STD) 3/8" ZNC P
	50	15U255 LOCKWASHER MEDIUM 3/8 ZINCPL
	60	15G205 HXNUT 3/8-16UNC2B ZINC GR2
ALC420111		CARTDR FESTOON POST ASSY
	10	04 23429 FESTOON POST MTG-CARTDR
	15	04 23430 FESTOON POST - 120"LG
	20	04 23425 FESTOON POST CLAMP
	30	04 23442 FESTOONING CABLE STRAP-CARTDR
	40	04 22410 FESTOON PULL CHANNEL
	50	04 20750 PAD=FESTOON CABLE CLAMP
	70	04 20750B CHANNEL=PAD CLAMP FESTOON
	80	15A009 CARBOLT 5/16-18UNC2X3.5 FULTHD
	90	15G193 HEXLOKNUIT 5/16-18UNC2A NYL STL
	100	15K095 HXCPSCR 3/8-16UNC2AX1 GR5 ZINC
	110	15U255 LOCKWASHER MEDIUM 3/8 ZINCPL
	120	15U240 FL+WASHER(USS STD)1/2 ZNC PL+D

Parts List, cont.		
Assembly	Item	Part Number Description
	130	15G205 HXNUT 3/8-16UNC2B ZINC GR2
	140	04 24156 TOW BAR BRKT FOR TUBING RAILS
	150	04 24206 FESTOON TOW BAR BRKT-CF6014
ALC420218		BED EXTENSION 3HX6LG-PAIRS
	10	15K060 HXCAPSCR 5/16-18UNCAX3/4 GR5 Z
	20	15U200 FLATWASHER(USS STD) 5/16"ZNC P
	30	15U210 LOKWASHER MEDIUM 5/16 ZINCPL
	40	15G185 HXNUT 5/16-18UNC2B SAE ZINC GR
	50	04 20169 BED EXTENSION 1.50X6.00-RT
	60	04 20169A BED EXTENSION 1.50X6.00-LF
	70	04 20170 BED EXTENSION BELT GUARD
	80	04 24132 BED EXTENSION DOUBLER
	90	12P11PHP HOLEPLUG 1+3/4" BLK HEYCO#2773
	100	15K031 BUTSOKCAPSCR 1/4-20X1/2 SS18-8
	110	15G164NE HEXLOKNUIT NYL 1/4-20 UNC2A SS.
ALC48018		BED ASSY 48WX174LG-UNDERDRIVE
	10	ALC48020B MCS CONVEY W=48 L=156 ASSY
	11	W4 22609B *PIPE X-BRACE=48WIDE-WLMT
	20	04 20012E CONVEYOR 6" X 21" SIDE EXT
	21	04 20017B CONVEYOR 21X48 SIDE EXT
	22	04 20017D CONVEYOR 21X108 SIDE EXT
	23	04 23016 SIDE UNLOADEND 22DEG BED-RT
	24	04 23016A SIDE UNLOADEND 22DEG BED-LF
	25	04 21349 SIDE EXT SPLICE ANGLE
	30	04 20020A 21" SIDE EXTENSION SUPPORT
	40	04 20021E SIDE EXTENSION SUPT BRKT
	50	04 21899 CONV SIDE SUPPORT CLAMP
	65	ALC48021 FLAIRSIDE 88WX16HX48L 48W
	80	ALC420218 BED EXTENSION 3HX6LG-PAIRS
	120	54C480GRY BELT 48"100 GREY WDGEGRIP/BARE
	130	54G201D CLIPPER LACE #UX-1-36S
	140	54G302C CONNECTING PIN # NYS065C EA=1FT
	150	AIC48001 MCS 48" IDLER ASSY
	160	04 20032 MCS IDLER BKT RIGHT
	1790	04 20033 MCS IDLER BKT LEFT
	190	15K060 HXCAPSCR 5/16-18UNCAX3/4 GR5 Z
	200	15U200 FLATWASHER(USS STD) 5/16"ZNC P
	210	15U210 LOKWASHER MEDIUM 5/16 ZINCPL
	220	15G185 HXNUT 5/16-18UNC2B SAE ZINC GR
	230	01 10090X NPLT:MILNOR SPEC W/CSA LOGO
	250	ALC48041 48"UNDERDRIVE ASSY
	251	APC48005A 48"UND/DR 1DR-LAG 1.44 INPUT
	260	ALC48035 LOAD END IDLER ASSEMBLY-48
	270	54STB33240 REDUCER 40:1 SF732-40T-B7-G
	280	15E210A SQMACH KEY 1/4X3+1/4 NOTAPER N
	290	54JH11437C SHAFTCOLLAR 1.4375 CFG #23S
	300	04 24033 BED FESTOON CONN.BOX MTG BKT

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Parts List			Parts List, cont.					
Assembly	Item	Part Number	Description	Assembly	Item	Part Number	Description	Comments
	310	04 20164C	UNDERDRIVE TORQ.ARM=LT #732C		170	04 21493F	48"BED ENDGATE BELT STRAP	
	320	04 20164U	UNDERDRIVE TORQ.ARM=LT #732		180	04 21493G	48"BED ENDGATE BELT FLAP	
	330	ALC420063	TORQUE ARM BUSHING ASSEMBLY		190	W4 21491	*COVERPLATE WELDMENT LF	
					200	W4 21491B	COVERPLATE WELDMENT RT-COELD	
ALC48020B	MCS CONVEY W=48 L=156:ASSY				210	04 21644	BKT-FLAIRSIDE SUPP-COSLIDEB	
	10	15A011	CARBOLT 3/8-16UNC2X1 ZINC GR2		230	04 21658	FLAIRSID SUPT LF-COELDS/COSTIK	
	20	15G205	HXNUT 3/8-16UNC2B ZINC GR2		240	04 21659	FLAIRSIDE SUPT-RT-COELDS	
	30	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL		250	04 21425	BED EXTN-LF UNLOAD/RT LOAD	
	40	15U240	FL+WASHER(USS STD)1/2 ZNC PL+D		260	04 21425A	BED EXTN-RT UNLOAD/LF LOAD	
	50	15N176	FLATMACSCR 1/4-20NCX3/4SS18-8		270	04 21425H	BED EXTENSION END COVER	
	60	15G166A	HXLKKNUT NYL1/4-20 UNC2A STL/Z					
	70	15G304	HEXCOUPLINGNUT 3/8-16UNC ZINC	ALC48041	48"UNDERDRIVE ASSY			
	80	17R021	THRD ROD 3/8-16X12'LG ZINC		10	15K095	HXCPSCR 3/8-16UNC2AX1 GR5 ZINC	
	90	04 20001	MCS 48"SIDE MEMBER		20	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
	100	04 20003	MCS 108"SIDE MEMBER		30	15U240	FLATWASHER(USS STD) 3/8" ZNC P	
	110	04 20005	MCS 48"CROSS MEMBER		40	15G205	HXNUT 3/8-16UNC2B ZINC GR2	
	120	04 20023A	MCS MOD CONN BKT RIGHT END		50	15A063	CARBOLT 1/2-13UNC2X1.50 ZINC G	
	130	04 20023B	MCS MOD CONN BKT LEFT END		60	15K162	HXCAPSCR 1/2-13UNC2AX1.5 GR5 P	
	150	04 20023	MCS MOD SECTION CONN BKT		70	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
	160	04 20024	MCS CROSS MEMBER CONN BKT		80	15U286	FLATWASHER 2"0DX17/32"IDX1/4"	
	170	04 23085	CONV BED HALF 48WX54L		90	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
	171	04 22311B	BED HALF STIFFENER-48/50W		100	15G240	HXNUT 3/4-10UNC2B SAE ZINC GR2	
	180	04 23087	CONV BED FULL 48WX48L		110	15U340	LOCKWASH MEDIUM 3/4 ZINCPL	
	190	04 23091	CONV SIDE 3.00X1.50X108L		120	15U445	FLATWASH 1.453"X2"OD.X.060THK.	
	200	04 23093	CONV SIDE 3.00X1.50X48L		130	04 20160D	UNDERDRIVE SUPP BRKT-LF	
	210	04 20118	TIE ROD STRAP		140	04 20160E	UNDERDRIVE SUPP BRKT-RT	
	211	15U490	FLTWASH 1+1/2X17/32X1/4 ZINC		150	04 20161B	TENSION ROLLER ADJ BRKT-LF	
	230	12P11PHP	HOLEPLUG 1+3/4" BLK HEYCO#2773		160	04 20161C	TENSION ROLLER ADJ BRKT-RT	
	240	60F125	UHMW POLYMER STRIP 1+1/2"X1/4"		170	04 20161D	TENSION ROLLER BACKING PLATE	
	250	04 21687C	BED SUPPORT X-MEMBER-48W		180	04 20165C	UNDERDRIVE TENSION ROLLER 48	
ALC48021	FLAIRSIDE 88WX16HX48L 48W				190	04 20298	BELT GUARD FOR 48"CONVEYOR	
	10	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5 Z		200	54M010	GRSFIT 1/4-28NF90 ALEMITE1911B	
	20	15U210	LOKWASHER MEDIUM 5/16 ZINCPL		210	54AF1437	FLGEBRG.HUBCITY 3-BOLT FB150URX1-7/16	
	30	15U200	FLATWASHER(USS STD) 5/16"ZNC P		220	56F1H2CSWC	FLG BRG=1.438 B.D.+COLLAR	
	40	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR		230	17R026A21A	THREAD ROD .75X21LG ZNC PLTD	
	50	15A012	CARBOLT 3/8-16UNC2AX1+1/4 ZNC		240	04 20989	SLEEVE=TIE ROD BRKT HOLDER	
	60	15U240	FLATWASHER(USS STD) 3/8" ZNC P					
	70	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	ALC48045	BED SLIDER ASSY 30+0 48W			
	80	15G205	HXNUT 3/8-16UNC2B ZINC GR2		10	04 20266	BED SLIDER SUPP 5" AIRCYL-RT	
	90	15N185	RDMACSCR 1/4-20UNC2X3/4SS18-8		15	04 20266A	BED SLIDER SUPP 5" AIRCYL-LF	
	100	15G164NE	HEXLOKNUT NYL 1/4-20 UNC2A SS		20	ALC60027	BED SLIDER CHANN ASSY	
	110	15G170	HEXNUT 1/4-20UNC2 SS18-8		30	04 24216	AIRCYL FRAME MTG CHANNEL 48W	
	120	15U181	LOCKWASHER MEDIUM 1/4 SS18-8		40	04 20236	TRACK GUIDE MTG BRKT	
	130	15U188	FLTWASH 1/4 STD COMM SS18-8		50	04 24217	AIRCYL FRAME TOP COVER 48W	
	140	04 21427	FLAIRSIDE 48L 21H LF-COLOOSE		80	04 21448D	48"BED AIRCYL MTG-REAR	
	150	04 21427A	FLAIRSIDE 48L 21H RT-COLOOSE		90	04 21449	AIR CYLADJUSTING BRACKET	
	160	04 21483D	48" BED ENDGATE-CONVEYOR		100	04 21449A	AIR CYLINDER ADJ BRKT-19.5"L	
					110	04 20267	REAR 5"DIA AIRCYL MTG PLATE	
					140	27C530	AIR CYL 5"X30"X1" CLEVIS MT.	
					150	17A045	CLEVIS PIN 3/4"X 3" DRILLED +	

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CF4010JS/XS CF4014CS/FS/MS CF4016CS CF4814JS



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Parts List			Parts List, cont.					
Assembly	Item	Part Number	Description	Assembly	Item	Part Number	Description	Comments
	160	15H051	STDCOTTERPIN 1/8X1+1/2ZINCPL		160	15U180	LOCKWASHER MEDIUM 1/4 ZINCPL	
	170	15G239S	HEXJAMNUT 3/4-16UNF2 SS18-8		170	15G165	HXNUT 1/4-20UNC2BSAE ZC GR2	
	180	17A049	YOKE END 3/4-16UNF HARD CHROME		190	15K060	HXCAPSCR 5/16-18UNCAX3/4 GR5 Z	
	190	04 20032	MCS IDLER BKT RIGHT		200	15U200	FLATWASHER(USS STD) 5/16"ZNC P	
	200	04 20033	MCS IDLER BKT LEFT		210	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
	210	AIC48001	*MCS 48" IDLER ASSY		220	15G185	HXNUT 5/16-18UNC2B SAE ZINC GR	
	220	04 20269	BED STOP PROX.SW BRKT		230	09RM01312S	CAPSW 12FT 90DEG ROLLER SILVER	
	230	04 24129	BED EXT/RETRACT TARGET		240	03 E0406	ENCL:M6 DRY PROX SW FULL OPN	
					250	03 E0406Y	COVER:M6 COSHA JUNCTION BOX	
ALC48046			CART DRIVE ASSY-48W SHUTL	ALC60025			DRIVE WHEEL/SHAFT ASSY	
	10	W4 23245	CART FRAME WLMT-DRIVE SIDE		10	X4 23267	CART DRIVE WHEEL SHAFT	
	20	W4 23246	CART FRAME WLMT-IDLER SIDE		20	04 23260	WHEEL BRNG MTG PLATE	
	30	04 24218	CART FRAME X-MEMBER 48W		30	54AF1437	FLGEBRG.HUBCITY 3-BOLT FB150URX1-7/16	
	40	04 23248	CART MID FRAME BRACE		40	54JH11437C	SHAFTCOLLAR 1.4375 CFG #23S	
	60	04 23264	WHEEL COVER MTG BRKT		50	54STB43260	REDUCER 60:1 F732-60-B7-G	
	80	04 23266	WHEEL COVER-CARTDRIVE		51	20H213	SYN. LUBE SHC634	
	90	ALC420101	TRACK GUIDE ASSY-COSHM		80	54N080P15	SPRKT B#H80P15 - NO BUSHING	
	110	ALC60025	DRIVE WHEEL/SHAFT ASSY		90	56Q1GP1	1+3/8" BUSH VPUL BROWNING P1	
	120	ALC60026	IDLER WHEEL/SHAFT ASSY		91	56Q1HP1	1+7/16" BUSH VPUL BROWNING P1	
	140	04 23061	CONVEY SUPPORT 4.5"WX35.5"L		100	60C509UT	WHEEL SINGLE 9"OD URETHANE	
	150	04 23061A	CONVEY SUPPORT 4.5"WX55.5"L		110	56Q1HSK	1+7/16" BUSH VPUL QD TYPE SK	
	160	04 23270	BED SLIDER MTG PLATE		120	15A012	CARBOLT 3/8-16UNC2AX1+1/4 ZNC	
	170	04 23271	BED SLIDER LEG ADAPTER		130	15U255	LOCKWASHER MEDIUM 3/8 ZINCPL	
	180	04 21348	LEG X-BRACE 40W CARTDR		140	15G218	HXLKKNUT NYL 3/8-16 STL/ZNC	
	200	04 23250	SHIPPING STAND-CARTDRIVE		170	15K143B	HXCAPSCR 7/16-14UNCX1"GR5 ZIN	
	210	04 23251	CONTROL BOX BASE-CARTDR		180	15U266	FLATWASHER 1"0DX7/16"IDX3/16"	
	220	04 23252	CONTROL BOX TIE-IN BRKT		190	15U278	LOCKWASHER MEDIUM 7/16 ZINCPL	
	230	04 23299	LOADEND LEG MTG-CARTDR		200	54G080C	ROLLCHAIN ANSI 80-1R 1"P	
	240	04 22832	CART FRAME LIFTING PL-CF6014		210	54G080	CONN LINK ANSI 80 SPRING CLIP	
	250	04 20242	CARTDR FESTOON BASE		220	04 23281	GEAR REDUCER BASE GUSSET	
ALC60024			KICKPLATE ASSY-CARTDR		225	04 23281A	CHAIN TENSIONING BRKT	
	10	04 23274	KICKPLATE-CARTDRIVE		230	04 23282	GEAR REDUCER MTG BASE	
	11	04 23367A	KICKPLATE GUSSET-RT		240	04 23283	CHAIN GUARD-CART DRIVE	
	12	04 23367B	KICKPLATE GUSSET-LF		250	15K151	HXCAPSCR 1/2-13UNC24X1.25 GR5	
	20	04 23370	KICKPLATE MTG BRKT		260	15K203	HXTAPSCR TFL 1/2-13X5 GR5 ZINC	
	30	04 23371	KICKPLT SPRING SUPPORT		270	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
	40	04 22184	KICKPLATE SW MTG BRKT		280	15U286	FLATWASHER 2"0DX17/32"IDX1/4"	
	45	04 22183	KICKPLATE HIGHT ADJ BRKT		290	15G230	HXNUT 1/2-13UNC2B SAE ZINC GR2	
	50	01 09028	SPRING=BRAKE.880D2.5FL95#/"		300	15K081	HXTAPSCR 5/16-18NCX3TFL GR5 ZC	
	60	15K133	HXCAPSCREW 3/8-16UNC2AX3 GR5 Z		310	15U200	FLATWASHER(USS STD) 5/16"ZNC P	
	80	15G218	HXLKKNUT NYL 3/8-16 STL/ZNC		320	15U210	LOKWASHER MEDIUM 5/16 ZINCPL	
	90	15K147	HXCAPSCR 1/2-13UNC2X1 GR5 ZINC					
	100	15U286	FLATWASHER 2"0DX17/32"IDX1/4"					
	110	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	ALC60027			BED SLIDER CHANN ASSY	
	120	15G228	HXCNPNT 1/2-13 UNC GR-2		10	15K151	HXCAPSCR 1/2-13UNC24X1.25 GR5	
	130	15N140	RDMACSCR 10-24UNC2AX3/4 ZINC G		20	15U300	LOKWASHER REGULAR 1/2 ZINC PLT	
	140	15G126SZ	HXLKKNUT 10-24 UNC STL/ZNC		30	15U280	FL+WASHER(USS STD)1/2 ZNC PL+D	
	150	15K039	HXCAPSCR 1/4-20UNC2AX3/4 GR5 Z		40	15K110	HEXCAPSCR 3/8-16UNC2AX1.5 GR5-	
					50	15K095	HXCAPSCR 3/8-16UNC2AX1 GR5 ZINC	

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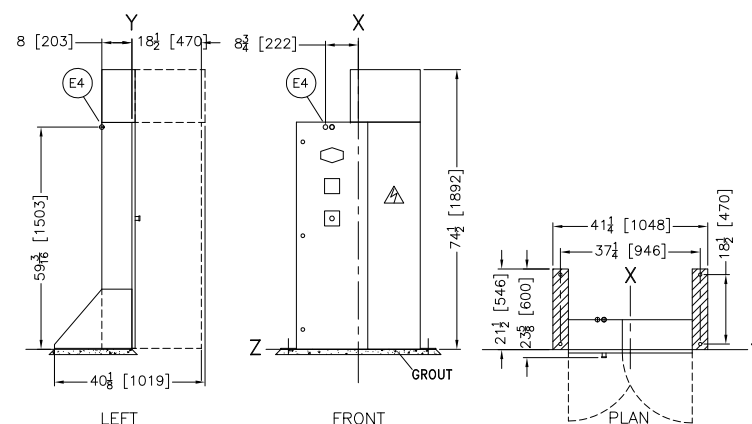
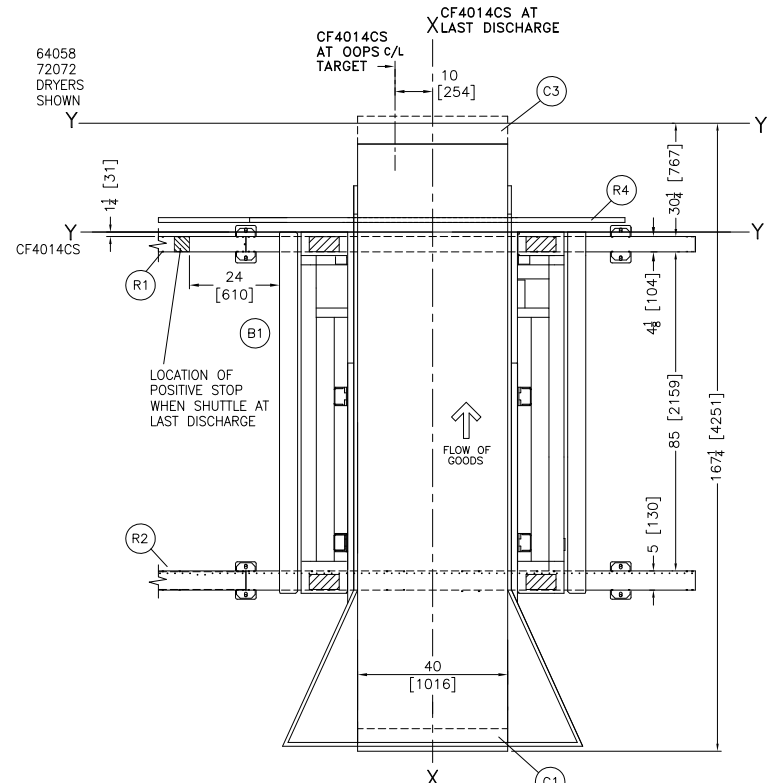
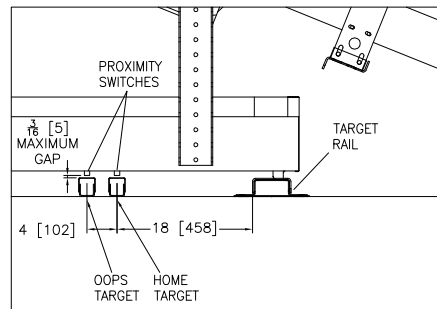
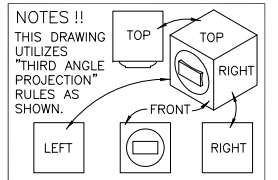
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Parts List				Parts List, cont.			
Assembly	Item	Part Number	Description	Assembly	Item	Part Number	Description
	60	15U200	FLATWASHER(USS STD) 5/16"ZNC P				
	80	15G218	HXLOKNUT NYL 3/8-16 STL/ZNC				
	90	27B25002SZ	SPCRROLL.39ID.125L.048T STLZNC				
	100	27B2100G0L	SPCRROLL.39ID.562L.048T STLZNC				
	110	04 23276	BED SLIDER CHANNEL-22LG				
	120	04 21654B	BED SL PAD 1.38THK=COSL3808				
	130	X4 23391	TRACK SLIDER UHMW BAR				
	140	04 21441	THREAD STRIP-SLIDING CHAN				
	150	04 21664	SHIM-BED SL PAD=COEL DS05				
APC40001A		*MCS 40"ONE DRV LAG=1.43INPUT					
	10	15P010	TRDCUT PHILPANHDSCR 10-24X1/2S				
	20	20C044	RUB/GASKET ADH 3M#EC1300 PINTS				
	30	X4 20062E	ROLLER 6X40CROWN 1DR=1.437IN				
	40	04 20050A	MCS 40"LAGGING BELT				
APC40004B		40"UND/DR 1DR-LAG 1.44 INPUT					
	10	15P010	TRDCUT PHILPANHDSCR 10-24X1/2S				
	20	20C044	RUB/GASKET ADH 3M # EC1300 PINT				
	30	04 20050A	MCS 40" LAGGING BELT				
	40	X4 20052J	40" UND/DR 1DR 1.44 MACH				
APC48005A		48"UND/DR 1DR-LAG 1.44 INPUT					
	10	15P010	TRDCUT PHILPANHDSCR 10-25X1/2S				
	20	20C044	RUB/GASKET ADH 3M # EC1300 PINT				
	30	04 20051	MCS 48 LAGGING BELT				
	40	X4 20068Q	48" UND/DR 1 DR ROLL 1.44 MACH				

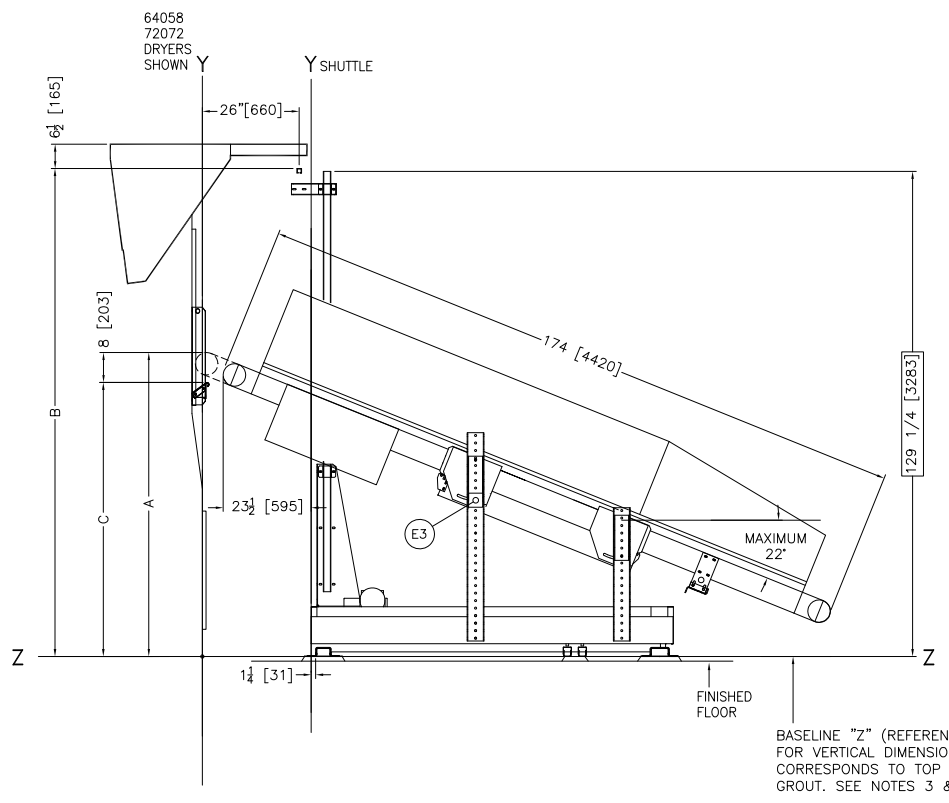
Dimensional Drawings

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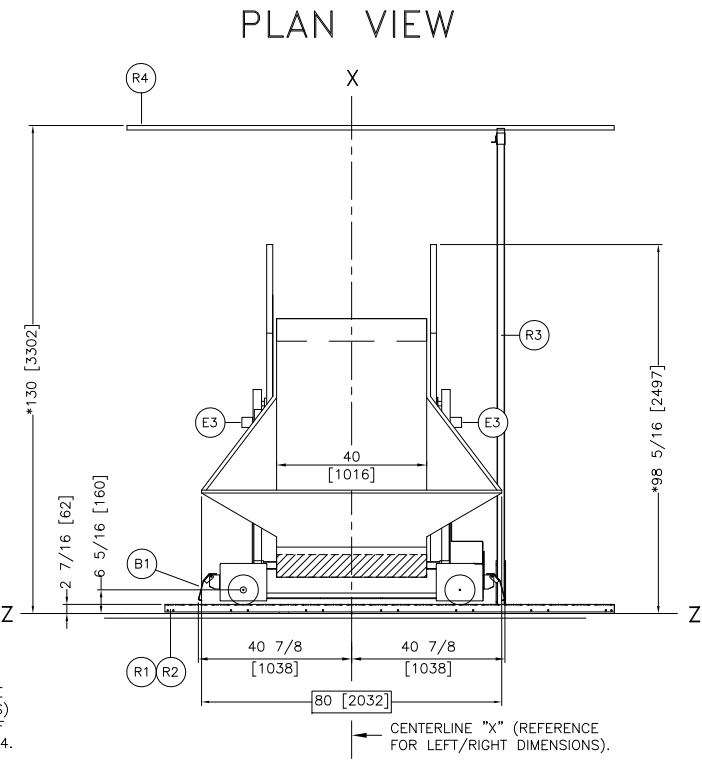
WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 7272TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 6458 & 6464TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5808TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		CF4014CS DIMENSIONS				DIMENSION "C" 58XX DRYERS LOAD HEIGHT		DIMENSION "C" 6458/6464 DRYERS LOAD HEIGHT		DIMENSION "C" 7272 DRYERS LOAD HEIGHT	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	DIMENSION "A"		DIMENSION "B"		INCHES	mm	INCHES	mm	INCHES	mm
-	-	-10 1/2	267	-	-	-	-	67	1702	116	2946	59	1499	57 1/2	1460	57 1/2	1460
-7	-178	0	0	-	-	-	-	70 1/2	1791	119 1/2	3035	62 1/2	1588	61	1549	61	1549
-3 1/2	-89	3 1/2	89	-	-	0	0	77 1/2	1969	126 1/2	3213	69 1/2	1765	68	1727	68	1727
0	0	7	178	-	-	3 1/2	89	81	2057	130	3302	73	1854	71 1/2	1816	71 1/2	1816
3 1/2	89	10 1/2	267	0	0	7	178	84 1/2	2146	133 1/2	3391	76 1/2	1943	75	1905	75	1905
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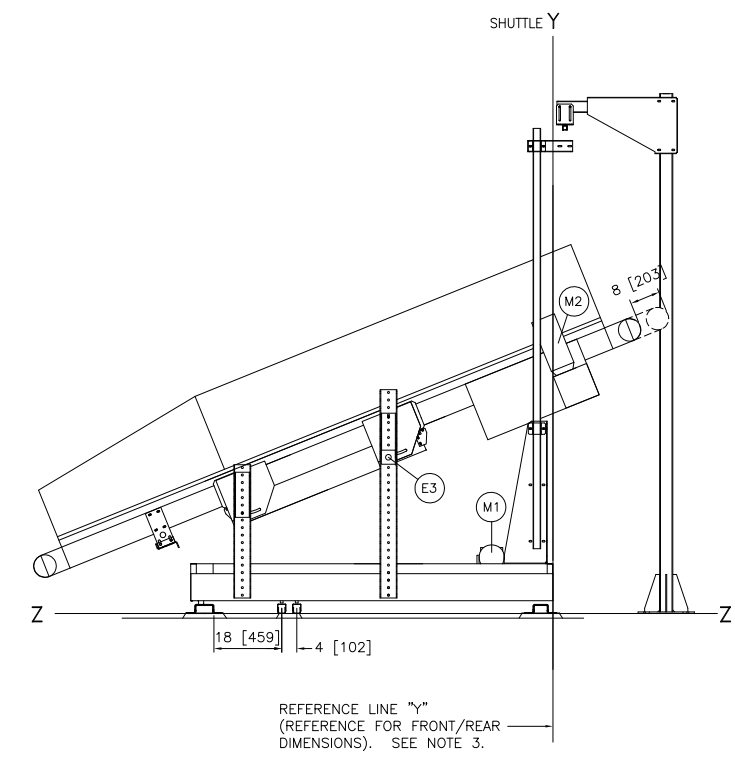
REMOTE MOUNT SHUTTLE CONTROL BOX
SEE NOTE 11.



LEFT VIEW



FRONT VIEW



RIGHT VIEW

ITEM	LEGEND
R4	FESTOON RAIL. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY. SEE PRICE LIST.
R3	FESTOON RAIL SUPPORT
R2	BOTTOM DRIVE RAIL WITH TARGET MOUNTING. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY.
R1	BOTTOM DRIVE RAIL. RAIL SUPPLIED BY MILNOR AND MAY BE BY MILNOR AND PRICED SEPARATELY. SEE PRICE LIST.
M2	BELT MOTOR, UNDERDRIVE.
M1	CART DRIVE MOTOR
E4	ELECTRICAL & CONTROL CABLE CONNECTIONS FOR REMOTE SHUTTLE CONTROL BOX
E3	EMERGENCY STOP BUTTON. SEE NOTE 8.
E2	CONTROLS
E1	HIGH VOLTAGE CONTROL BOX IN RIGHT HAND POSITION.
C1	CONVEYOR EXTENDED 8 [203] TO DISCHARGE
B1	SAFETY KICK PLATE, SPRING LOADED.
A1	AIR CONNECTION, FROM FESTOONING, 1/2" NPT

- NOTES**
- CONTROLS FOR THE SHUTTLE ARE CONTAINED IN THIS REMOTELY MOUNTED SHUTTLE CONTROL BOX WHICH MUST BE PLACED IN THE EQUIPMENT LAYOUT.
 - THE LENGTH DIMENSION(**) WILL VARY DEPENDING ON LOAD AND DISCHARGE HEIGHTS REQUIRED.
 - THE HEIGHT DIMENSIONS(*) ON THIS DRAWING SHOW THE PROPER HEIGHTS TO WORK WITH THE 58058 DRYER AT ZERO PEDESTAL EXTENDERS, 73 [1854] LOADING HEIGHT. INTERFACING HEIGHTS AND OTHER DRYER MODELS ARE SHOWN IN THE CHART.
 - EMERGENCY STOPS ARE ON BOTH LEFT AND RIGHT SIDES OF THE SHUTTLE ONE OF THE TWO EMERGENCY STOPS IS INSTALLED INTO THE DOOR OF THE CONTROL BOX. THE SECOND EMERGENCY STOP IS MOUNTED TO THE SIDE RAIL MEMBER OPPOSITE THE CONTROLS.
 - THE SHUTTLE NAME CONFIGURATION IS AS FOLLOWS:
CF = MICROPROCESSOR/TRANSLATE/NON-ELEVATE
40 = BELT WIDTH IN INCHES
14 = LENGTH OF BED (14 = 14'-6")
C = 8" TO DISCHARGE
S = SINGLE BED
 - AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC BOX TO ANY OBJECT IS:
36 [914] IF OBJECT IS AN UNGROUNDED (INSULATED) WALL
42 [1067] IF OBJECT IS A GROUNDED WALL (i.e. BARE CONCRETE, BRICK, ETC.)
48 [1219] IF OBJECT IS ANY LIVE PART.
CHECK LOCAL ELECTRIC CODES FOR FURTHER RESTRICTIONS.
 - CUSTOMER TO SUPPLY CIRCUIT BREAKER OR FUSED BRANCH CIRCUIT DISCONNECT (SAFETY) SWITCHES WITH LAG TYPE FUSES FROM POWER SOURCE TO MACHINE. A SEPARATE GROUND WIRE MUST BE CONNECTED FROM DISCONNECT TO EQUIPMENT.
 - BASELINE "Z" IS THE SAME FOR ALL MILNOR MACHINES AND IS SHOWN ON ALL DIMENSIONAL DRAWINGS. THE DISTANCE BETWEEN BASELINE "Z" AND THE FINISHED FLOOR MAY VARY (WITH CHANGES IN FLOOR HEIGHT) AS REQUIRED TO INSURE THAT BASELINE "Z" IS HORIZONTAL AND ALL COMPONENTS RECEIVING GROUT ARE SET ON A MINIMUM 1" [25] THICK GROUT BED.
 - USE REFERENCE LINES "X", "Y", AND "Z" TO LOCATE ALL SERVICE CONNECTIONS.
 - NUMBERS IN BRACKETS [] DENOTE DIMENSIONS IN MILLIMETERS.
 - ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTICE THROUGH REDESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED, AND IN NO EVENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE. FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS.
- ATTENTION**
MOST REGULATORY AUTHORITIES (INCLUDING OSHA IN THE USA) HOLD THE OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.
- ATTENTION**
THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.

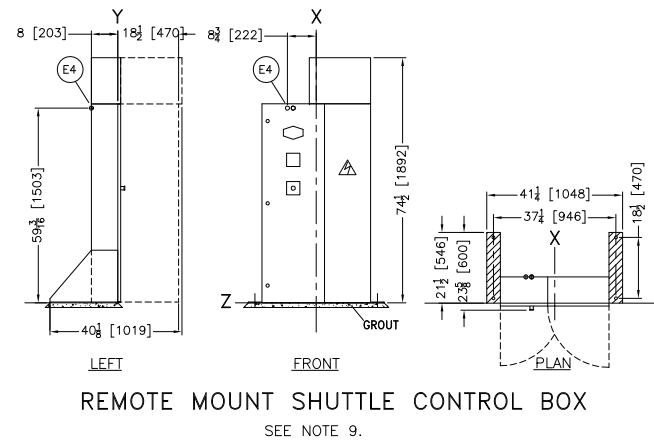
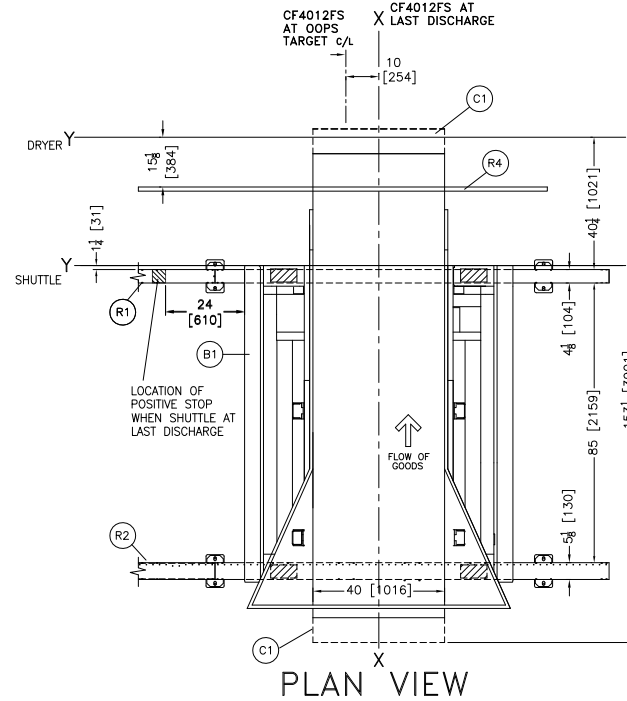
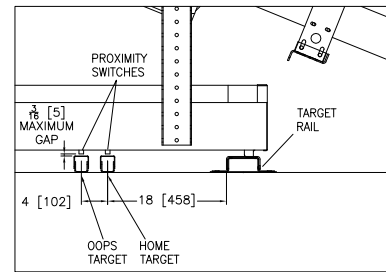
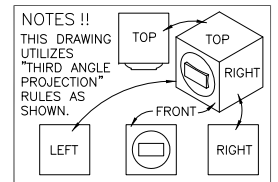
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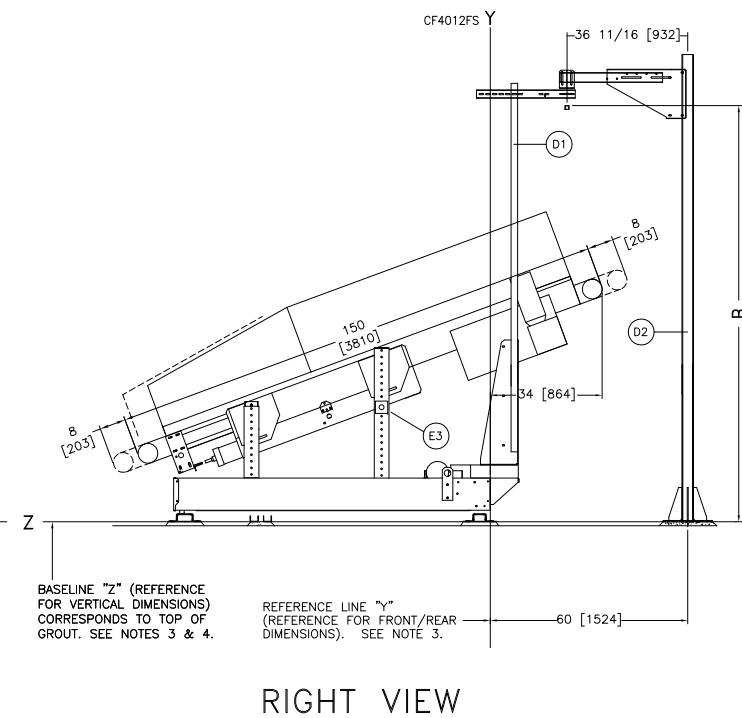
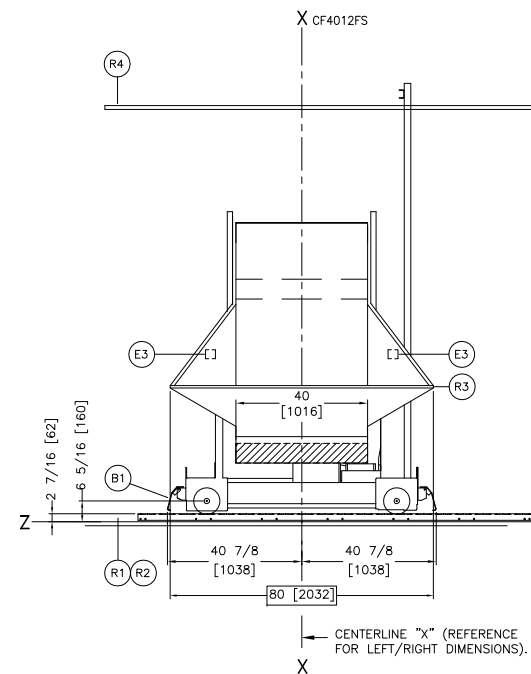
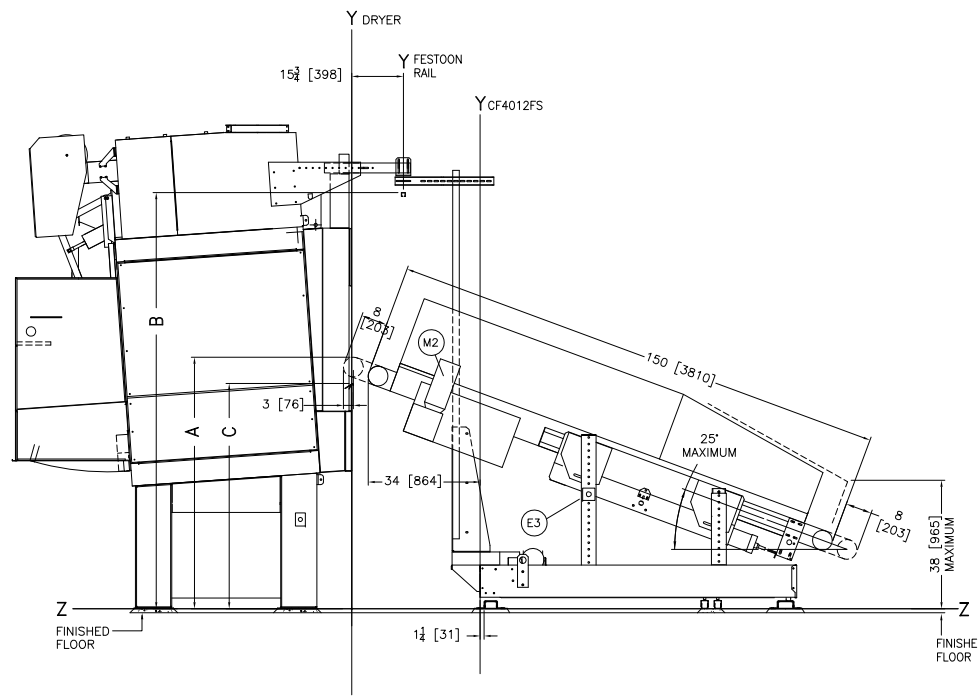
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2012162D

MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591,
FAX 504/469-1849, Email: milnorinfo@milnor.com

WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 7272TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 6458 & 6464TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5808TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		CF4012FS DIMENSIONS				DIMENSION "c" 58XX DRYERS LOAD HEIGHT		DIMENSION "c" 6458/6464 DRYERS LOAD HEIGHT		DIMENSION "c" 7272 DRYERS LOAD HEIGHT	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	DIMENSION "A"		DIMENSION "B"		INCHES	mm	INCHES	mm	INCHES	mm
								INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
-7	-178	0	0	-	-	-	-	76 1/2	1943	126 1/2	3213	69 1/2	1765	68	1727	68	1727
-3 1/2	-89	3 1/2	89	-	-	0	0	80	2032	130	3302	73	1854	71 1/2	1816	71 1/2	1816
0	0	7	178	-	-	3 1/2	89	83 1/2	2121	133 1/2	3391	76 1/2	1943	75	1905	75	1905
3 1/2	89	10 1/2	267	0	0	7	178	87	2210	137	3480	80	2032	78 1/2	1994	78 1/2	1994
7	178	14	356	3 1/2	89	10 1/2	267	90 1/2	2299	140 1/2	359	83 1/2	2121	82	2083	82	2083
10 1/2	267	17 1/2	445	7	178	14	356	94	2515	144	3658	87	2210	85 1/2	2172	85 1/2	2172
14	356	21	533	10 1/2	267	17 1/2	445	97 1/2	2477	147 1/2	3746	90 1/2	2299	89	2261	89	2261



ITEM	LEGEND
R4	FESTOON RAIL. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY. SEE PRICE LIST.
R3	FESTOON RAIL SUPPORT
R2	BOTTOM DRIVE RAIL WITH TARGET MOUNTING. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY.
R1	BOTTOM DRIVE RAIL. RAIL SUPPLIED BY MILNOR AND MAY BE BY MILNOR AND PRICED SEPARATELY. SEE PRICE LIST.
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M1	CART DRIVE MOTOR
E4	ELECTRICAL & CONTROL CABLE CONNECTIONS FOR REMOTE SHUTTLE CONTROL BOX
E3	EMERGENCY STOP BUTTON. SEE NOTE 8.
E2	CONTROLS
E1	HIGH VOLTAGE CONTROL BOX IN RIGHT HAND POSITION.
D2	FREESTAND SUPPORT
D1	FESTOON POST, OPPOSITE SIDE FROM UNDERDRIVE MOTOR
C1	CONVEYOR EXTENDED 8" [203] TO DISCHARGE
B1	SAFETY KICK PLATE, SPRING LOADED.
A1	AIR CONNECTION, FROM FESTOONING, 1/2" NPT



NOTES

9 CONTROLS FOR THE SHUTTLE ARE CONTAINED IN THIS REMOTELY MOUNTED SHUTTLE CONTROL BOX WHICH MUST BE PLACED IN THE EQUIPMENT LAYOUT.

8 EMERGENCY STOPS ARE ON BOTH LEFT AND RIGHT SIDES OF THE SHUTTLE ONE OF THE TWO EMERGENCY STOPS IS INSTALLED INTO THE DOOR OF THE CONTROL BOX. THE SECOND EMERGENCY STOP IS MOUNTED TO THE SIDE RAIL MEMBER OPPOSITE THE CONTROLS.

7 THE SHUTTLE NAME CONFIGURATION IS AS FOLLOWS:
CF = MICROPROCESSOR/TRANSLATE/NON-ELEVATE
40 = BELT WIDTH IN INCHES
12 = LENGTH OF BED (14 = 14'-6")
F = 8" TO LOAD + 8" TO DISCHARGE
S = SINGLE BED

6 AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC BOX TO ANY OBJECT IS:
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LEFT VIEW

FRONT VIEW

RIGHT VIEW

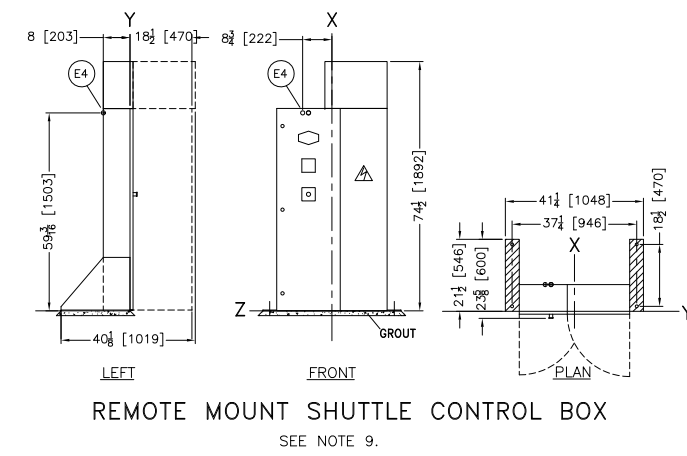
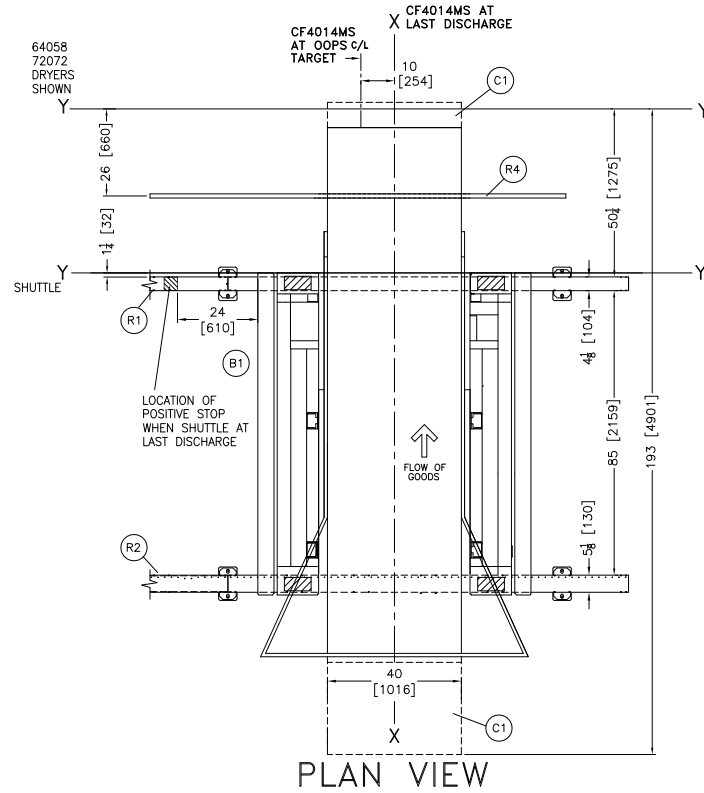
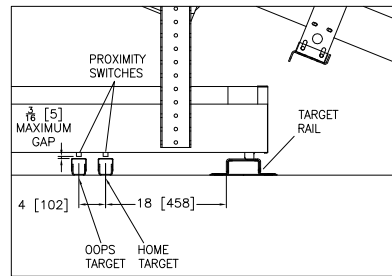
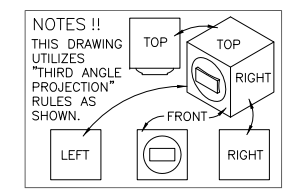
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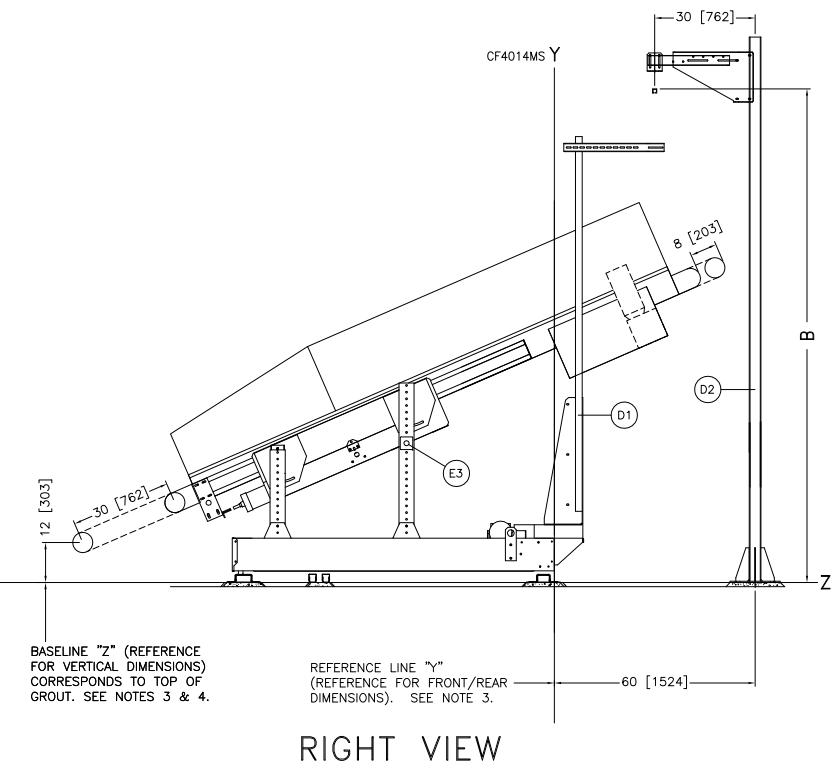
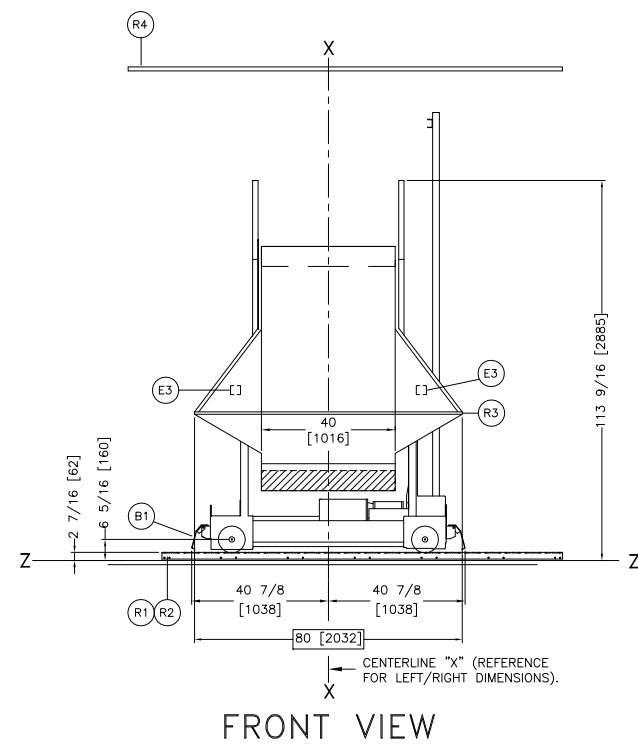
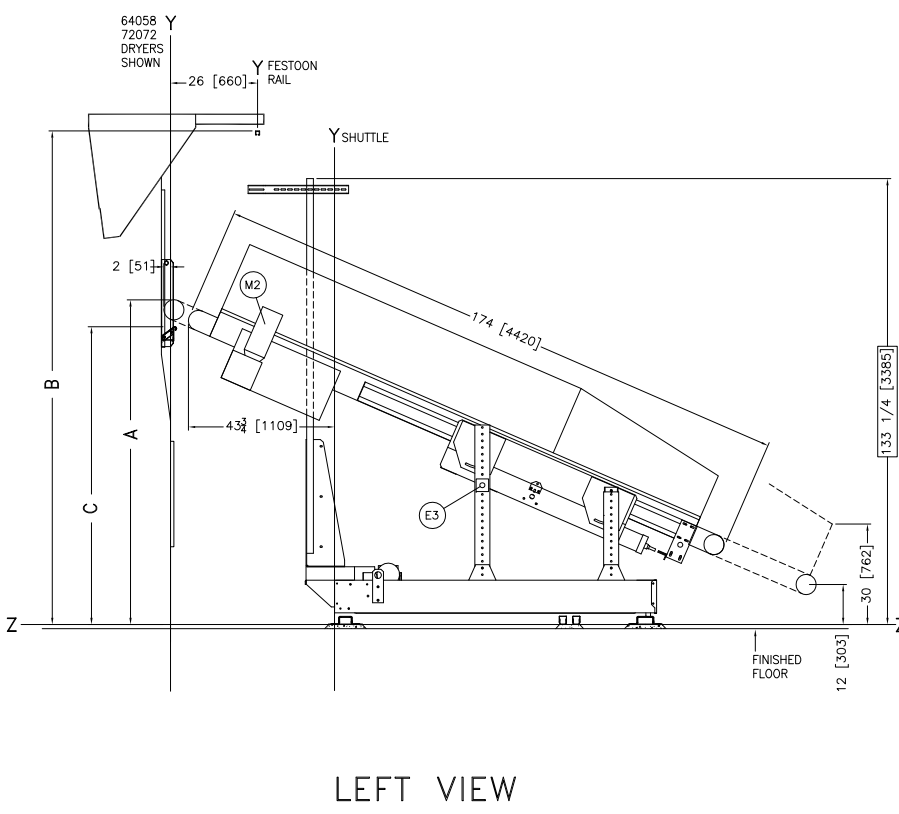
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MILNOR PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, LA 70063, USA, Phone 504/467-9591, FAX 504/469-1849, Email: milnorinfo@milnor.com

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INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	DIMENSION "A"		DIMENSION "B"		INCHES	mm	INCHES	mm	INCHES	mm
-7	-178	0	0	-	-	-	-	77 1/2	1965	126 1/2	3213	69 1/2	1765	68	1727	68	1727
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E2	CONTROLS
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- NOTES**
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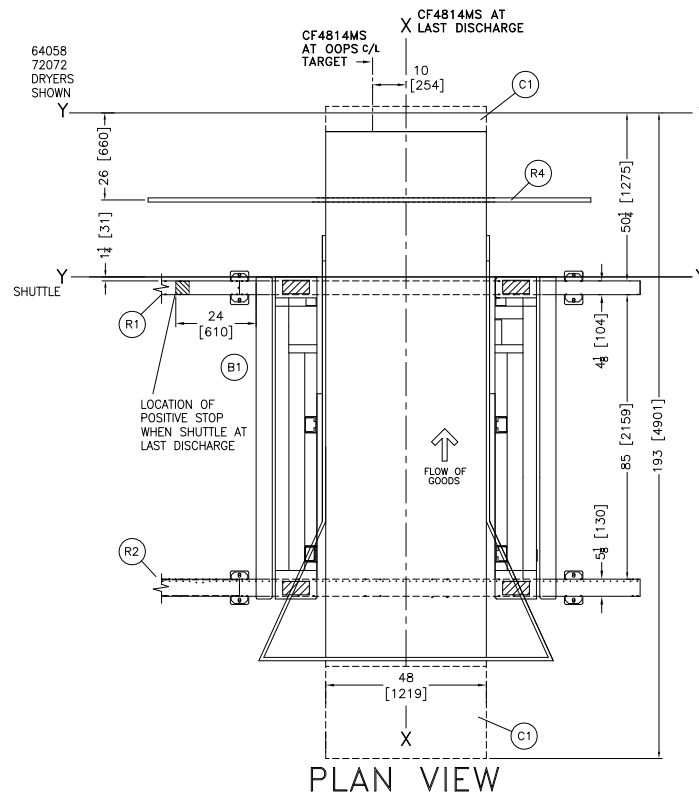
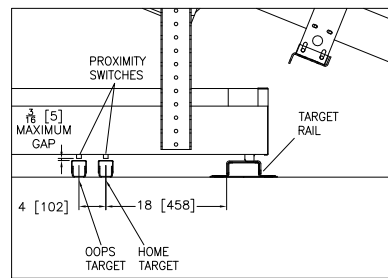
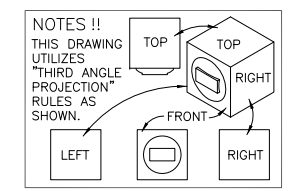
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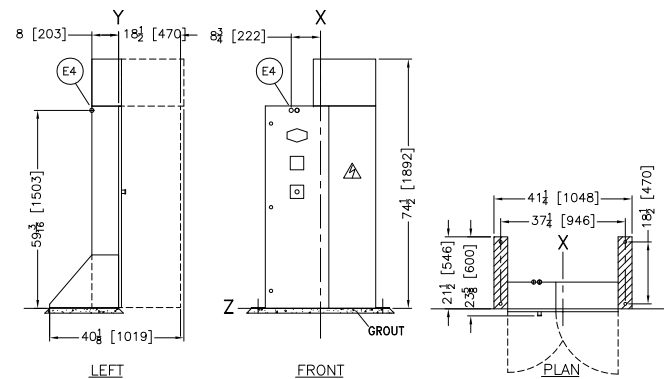
DWG# BDCF40MSAE 2012162D

MILNOR PELLERIN MILNOR CORPORATION
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WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 7272TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 6458 & 6464TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 5808TG1/TS1		WHEN THIS DRYER PEDESTAL EXTENDER IS USED WITH DRYER 58058TG2/TS1		CF4014MS DIMENSIONS				DIMENSION "c" 58XX DRYERS LOAD HEIGHT		DIMENSION "c" 6458/6464 DRYERS LOAD HEIGHT		DIMENSION "c" 7272 DRYERS LOAD HEIGHT	
INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	DIMENSION "A"		DIMENSION "B"		INCHES	mm	INCHES	mm	INCHES	mm
-7	-178	0	0	-	-	-	-	77 1/2	1965	126 1/2	3213	69 1/2	1765	68	1727	68	1727
-3 1/2	-89	3 1/2	89	-	-	0	0	81	2057	130	3302	73	1854	71 1/2	1816	71 1/2	1816
0	0	7	178	-	-	3 1/2	89	84 1/2	2146	133 1/2	3391	76 1/2	1943	75	1905	75	1905
3 1/2	89	10 1/2	267	0	0	7	178	88	2235	137	3480	80	2032	78 1/2	1994	78 1/2	1994
7	178	14	356	3 1/2	89	10 1/2	267	91 1/2	2324	140 1/2	359	83 1/2	2121	82	2083	82	2083
10 1/2	267	17 1/2	445	7	178	14	356	95	2413	144	3658	87	2210	85 1/2	2172	85 1/2	2172
14	356	21	533	10 1/2	267	17 1/2	445	98 1/2	2502	147 1/2	3746	90 1/2	2299	89	2261	89	2261

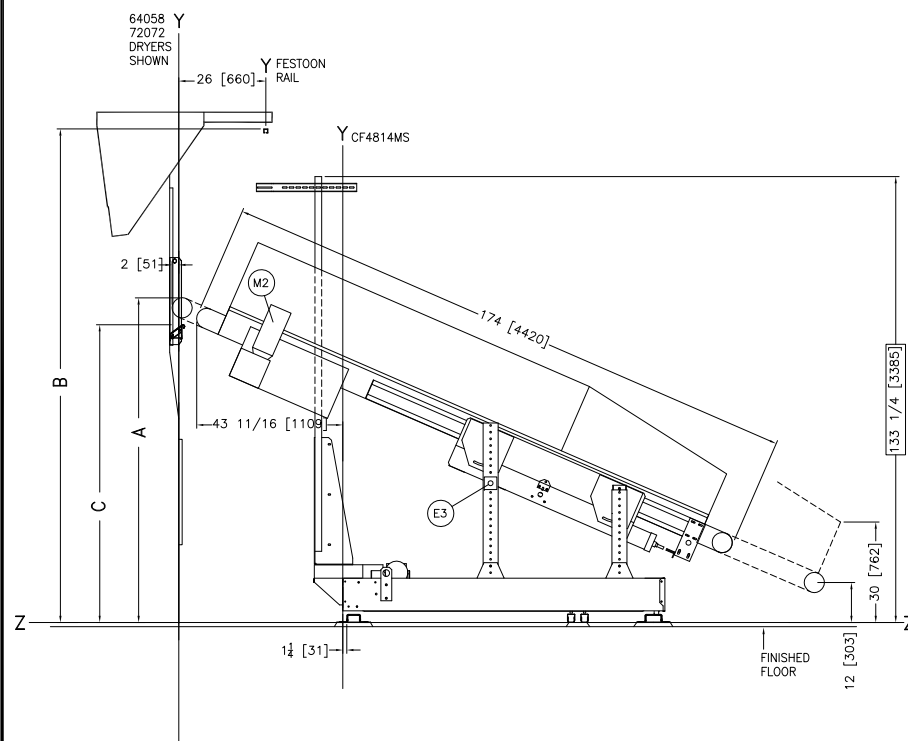


PLAN VIEW

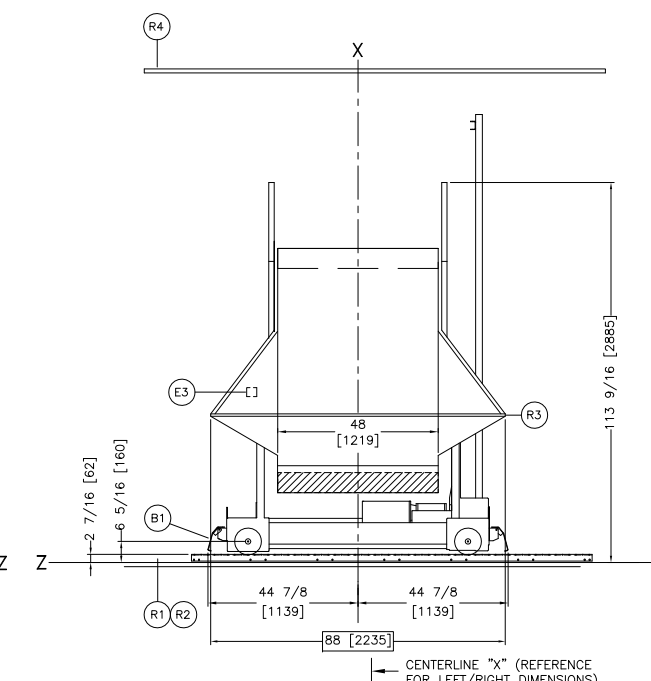


REMOTE MOUNT SHUTTLE CONTROL BOX

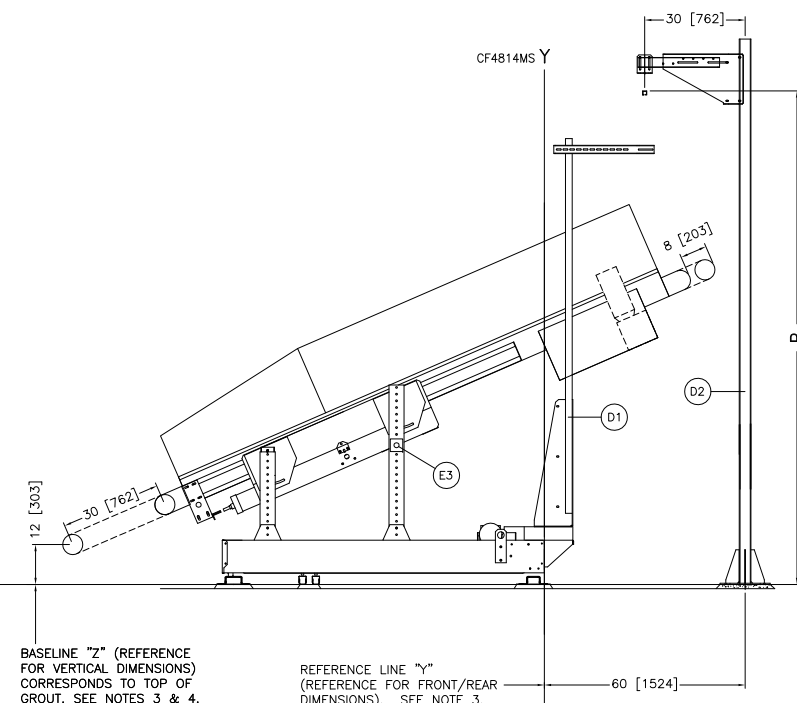
SEE NOTE 9.



LEFT VIEW



FRONT VIEW



RIGHT VIEW

ITEM	LEGEND
R4	FESTOON RAIL. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY. SEE PRICE LIST.
R3	FESTOON RAIL SUPPORT
R2	BOTTOM DRIVE RAIL WITH TARGET MOUNTING. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY.
R1	BOTTOM DRIVE RAIL. RAIL SUPPLIED BY MILNOR AND MAY BE PRICED SEPARATELY. SEE PRICE LIST.
M2	BELT MOTOR, UNDERDRIVE, SPECIFY LEFT OR RIGHT, ALWAYS OPPOSITE SIDE FROM FESTOON POST
M1	CART DRIVE MOTOR
E4	ELECTRICAL & CONTROL CABLE CONNECTIONS FOR REMOTE SHUTTLE CONTROL BOX
E3	EMERGENCY STOP BUTTON. SEE NOTE 8.
E2	CONTROLS
E1	HIGH VOLTAGE CONTROL BOX IN RIGHT HAND POSITION.
D2	FREESTAND SUPPORT
D1	FESTOON POST, OPPOSITE SIDE FROM UNDERDRIVE MOTOR
C1	CONVEYOR EXTENDED 8"[203] TO DISCHARGE
B1	SAFETY KICK PLATE, SPRING LOADED.
A1	AIR CONNECTION, FROM FESTOONING, 1/2" NPT

NOTES	
9	CONTROLS FOR THE SHUTTLE ARE CONTAINED IN THIS REMOTELY MOUNTED SHUTTLE CONTROL BOX WHICH MUST BE PLACED IN THE EQUIPMENT LAYOUT.
8	EMERGENCY STOPS ARE ON BOTH LEFT AND RIGHT SIDES OF THE SHUTTLE ONE OF THE TWO EMERGENCY STOPS IS INSTALLED INTO THE DOOR OF THE CONTROL BOX. THE SECOND EMERGENCY STOP IS MOUNTED TO THE SIDE RAIL MEMBER OPPOSITE THE CONTROLS.
7	THE SHUTTLE NAME CONFIGURATION IS AS FOLLOWS: CF = MICROPROCESSOR/TRANSLATE/NON-ELEVATE 48 = BELT WIDTH IN INCHES 14 = LENGTH OF BED (14 = 14'-6") M = 30" TO LOAD + 8" TO DISCHARGE S = SINGLE BED
6	AS OF THIS WRITING, THE MINIMUM CLEARANCE REQUIRED BY U.S. NATIONAL ELECTRIC CODES, FROM ELECTRIC BOX TO ANY OBJECT IS: 36 [914] IF OBJECT IS AN UNGROUNDED (INSULATED) WALL. 42 [1067] IF OBJECT IS A GROUNDED WALL (i.e. BARE CONCRETE, BRICK, ETC.) 48 [1219] IF OBJECT IS ANY LIVE PART. CHECK LOCAL ELECTRIC CODES FOR FURTHER RESTRICTIONS.
5	CUSTOMER TO SUPPLY CIRCUIT BREAKER OR FUSED BRANCH CIRCUIT DISCONNECT (SAFETY) SWITCHES WITH LAG TYPE FUSES FROM POWER SOURCE TO MACHINE. A SEPARATE GROUND WIRE MUST BE CONNECTED FROM DISCONNECT TO EQUIPMENT.
4	BASELINE "Z" IS THE SAME FOR ALL MILNOR MACHINES AND IS SHOWN ON ALL DIMENSIONAL DRAWINGS. THE DISTANCE BETWEEN BASELINE "Z" AND THE FINISHED FLOOR MAY VARY (WITH CHANGES IN FLOOR HEIGHT) AS REQUIRED TO INSURE THAT BASELINE "Z" IS HORIZONTAL AND ALL COMPONENTS REQUIRING GROUT ARE SET ON A MINIMUM 1" [25] THICK GROUT BED.
3	USE REFERENCE LINES "X", "Y", AND "Z" TO LOCATE ALL SERVICE CONNECTIONS.
2	NUMBERS IN BRACKETS [] DENOTE DIMENSIONS IN MILLIMETERS.
1	ALL DIMENSIONS SHOWN ARE APPROXIMATE, SUBJECT TO NORMAL MANUFACTURING TOLERANCES, AND TO OCCASIONAL CHANGES WITHOUT NOTICE THROUGH REDESIGN AND/OR RELOCATION OF COMPONENTS, ETC. DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED, AND IN NO EVENT PRE-PIPE CLOSER THAN FIVE FEET FROM MACHINE. FACTORY MUST BE CONSULTED FOR DIMENSIONS IF MACHINE IS TO BE MOVED THROUGH NARROW OR LOW CORRIDORS OR OPENINGS.
ATTENTION MOST REGULATORY AUTHORITIES (INCLUDING OSHA IN THE USA) HOLD THE OWNER/USER ULTIMATELY RESPONSIBLE TO MAINTAIN A SAFE WORKING ENVIRONMENT. ACCORDINGLY, THE OWNER/USER MUST RECOGNIZE ALL FORESEEABLE SAFETY HAZARDS, FURNISH SAFETY INSTRUCTIONS AND GUIDANCE TO ALL PERSONNEL WHO MAY COME IN CONTACT WITH THE INSTALLATION, AND PROVIDE ALL NECESSARY ADDITIONAL SAFETY GUARDS, FENCES, RESTRAINTS, DEVICES, ETC., NOT FURNISHED BY THE EQUIPMENT MANUFACTURER OR VENDOR.	
ATTENTION THE FLOOR AND/OR OTHER SUPPORT COMPONENTS MUST HAVE SUFFICIENT STRENGTH (AND RIGIDITY WITH DUE CONSIDERATION FOR NATURAL OR RESONANT FREQUENCY THEREOF) TO WITHSTAND THE FULLY LOADED WEIGHT OF THE MACHINE INCLUDING THE GOODS, THE WATER, AND ANY REPEATED SINUSOIDAL (ROTATING) FORCES GENERATED DURING ITS OPERATION. WRITE THE FACTORY FOR ADDITIONAL MACHINE DATA FOR USE BY A COMPETENT SOIL AND/OR STRUCTURAL ENGINEER.	

CF4814MS

Scale: 0 0.5M 1M / INCHES 0 12 24 36

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