Product Bulletin

SEB LCM and Product Reliability

Attn: Service Personnel **File:** TECH-03-027-2005

Date: 2005-09-12 **Subject:** HR Escalator Handrail Roller Cluster Part Assemblies

HR Escalator Handrail Roller Cluster Part Assemblies

Product Affected

All HR Escalator Units

Reason for Change

KONE Spares has been supplying several different assemblies for replacement Handrail Roller Cluster parts. These assemblies have now been consolidated to 2 basic parts that can be used to make any configuration required for the field. KONE Spares will now stock only these 2 parts, which are USP521121001 and USP521122001.

Details of Change

The following chart is a cross-reference guide that shows what new parts should be ordered to make a replacement roller cluster assembly for the original part. Additionally this bulletin provides instructions for assembling the roller clusters when replacing the assembly.

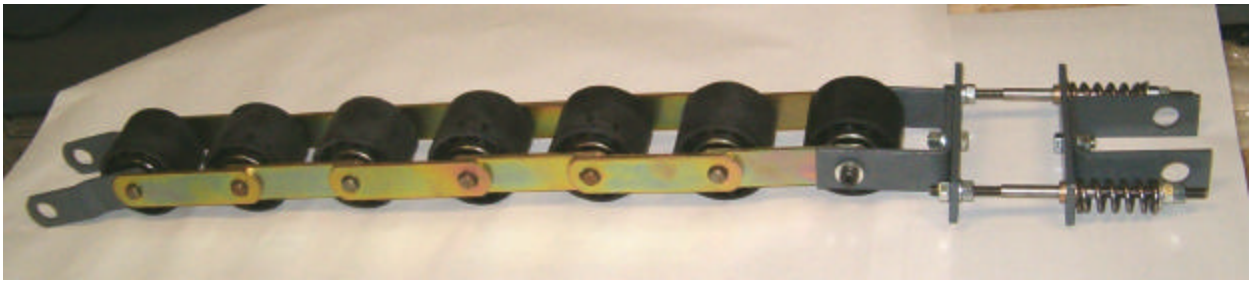
KONE P/N	Description	Replacement
USP22705	ROLLER,HR TENSION,LH,4000	(1)USP521121001 (1)USP521122001
USP22706	ROLLER,HR TENSION,RH,4000	(1)USP521121001 (1)USP521122001
USP22707	ROLLER CLUSTER,HR,LH,3000	(1)USP521122001
USP22708	ROLLER CLUSTER,HR,RH,3000	(1)USP521122001
USP23727	ROLLER CLUSTER,HR,TENS,LH	(1)USP521121001 (1)USP521122001
USP23728	ROLLER,CLUSTER,HR,TENS,RH	(1)USP521121001 (1)USP521122001
USP27749	ROLLER CLSTR,HR DR TENSION	(1)USP521121001
USP27850001	ROLLER CLSTR,HR,CRYS,OUT,L	(1)USP521121001 (1)USP521122001
USP27882	ROLLER CLSTR,HR CRYS,OUT R	(1)USP521121001 (1)USP521122001

Contact Person

Contact Technical Support in Moline SBC for assistance with this product, if required.

Replacement Instructions

USP521121001 and USP521122001 have been arranged to allow any HR roller cluster to be made from one or both assemblies.



USP521121001

USP521122001

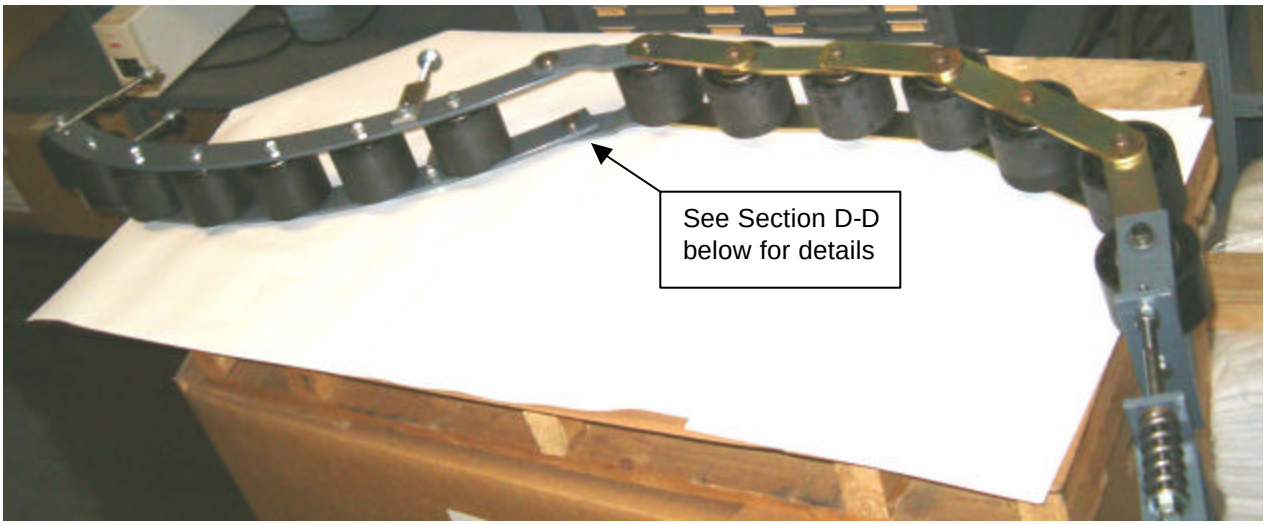
These assemblies have been set up for service parts, based on the OEM designs used for production. The brackets and pivot shafts that are mounted on the escalator truss have not been included in these assemblies, and are assumed to be useable on the truss. This removes the handedness (L or R) from the assemblies. For convenience in understanding these assemblies the Assembly Drawings for each part have been included in this bulletin. There are notes on the drawings that relate to the assembly process in the field for various configurations.

Configuration notes for combining and mounting various assemblies

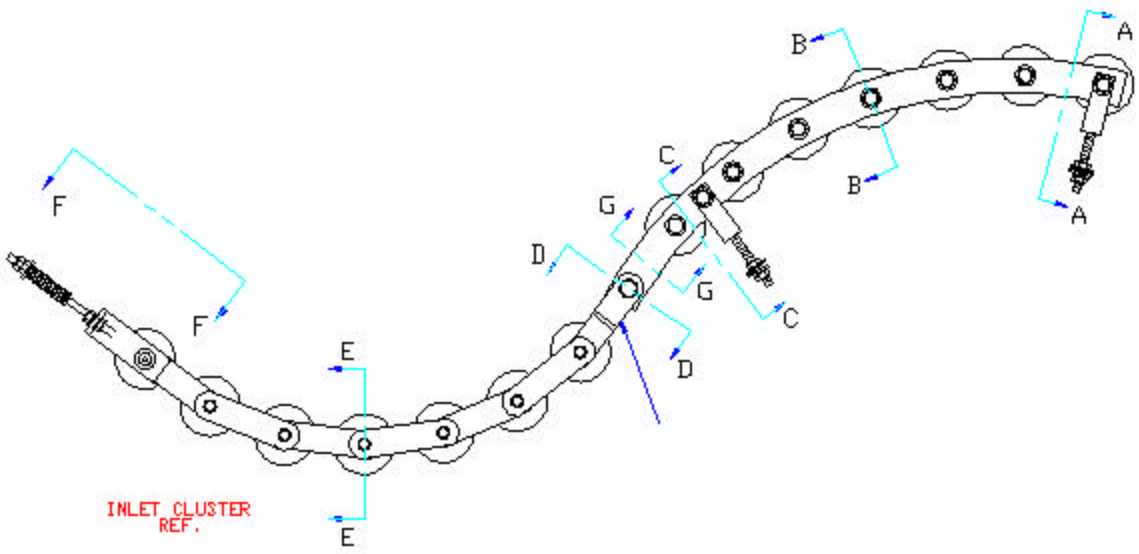
The replacement chart shows those assemblies that require the USP521121001 and USP521122001 parts to be combined. Refer to the assembly drawings – USP521121000 and USP521122000.

- Take a look at the assembly being removed to understand how the parts are to be combined.
- The following notes show the various connections to be made when combining and mounting assemblies.

Example of Upper End Cluster – assembled

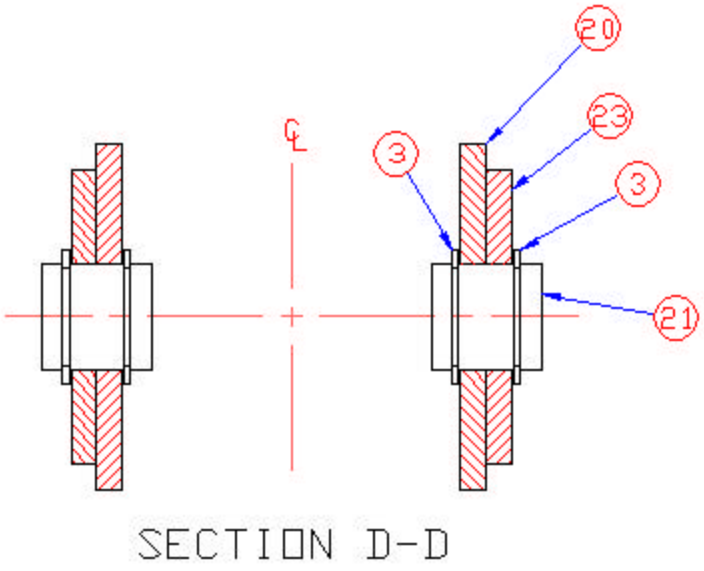


Upper End Cluster



Upper End Cluster Diagram

1. Connecting the assemblies – Section D-D in the Diagram above



Item 21 and 3 are the clevis shaft and snapring found on USP521122001.

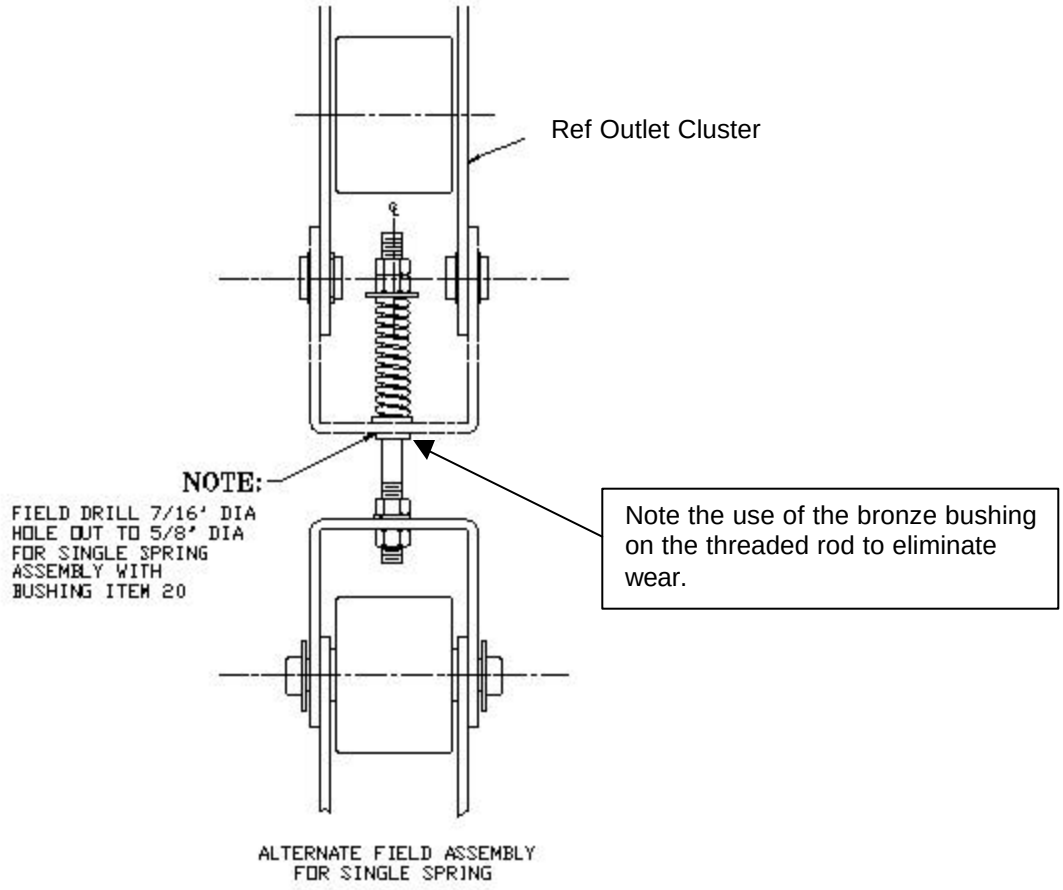
Item 20 is the side plate in the USP521122001 assembly.

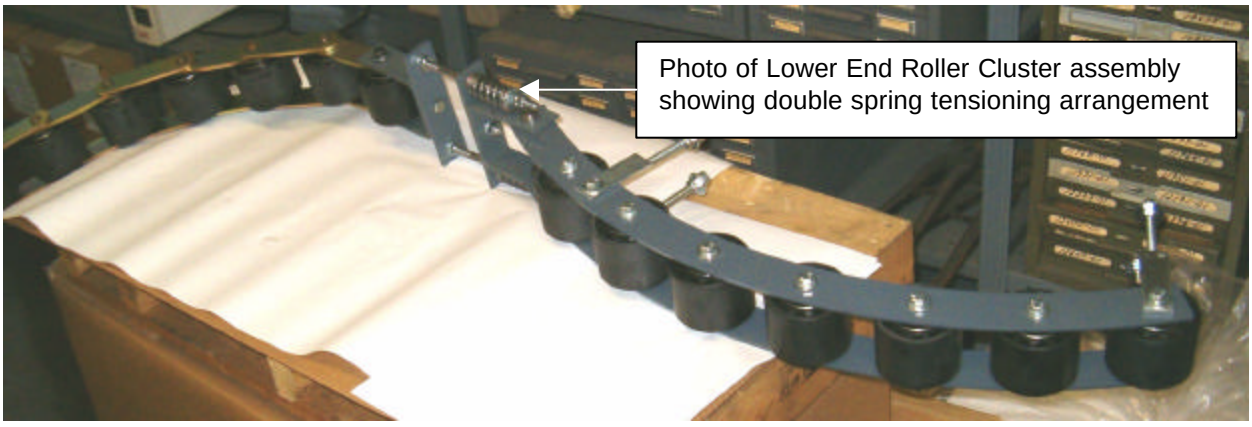
Item 23 is part of the connecting assembly in USP521121001

Remove the snaprings on USP521122001, align the assemblies, and insert the clevis shafts as shown. Replace the snaprings.

2. Spring Tensioning device – Alternate arrangements

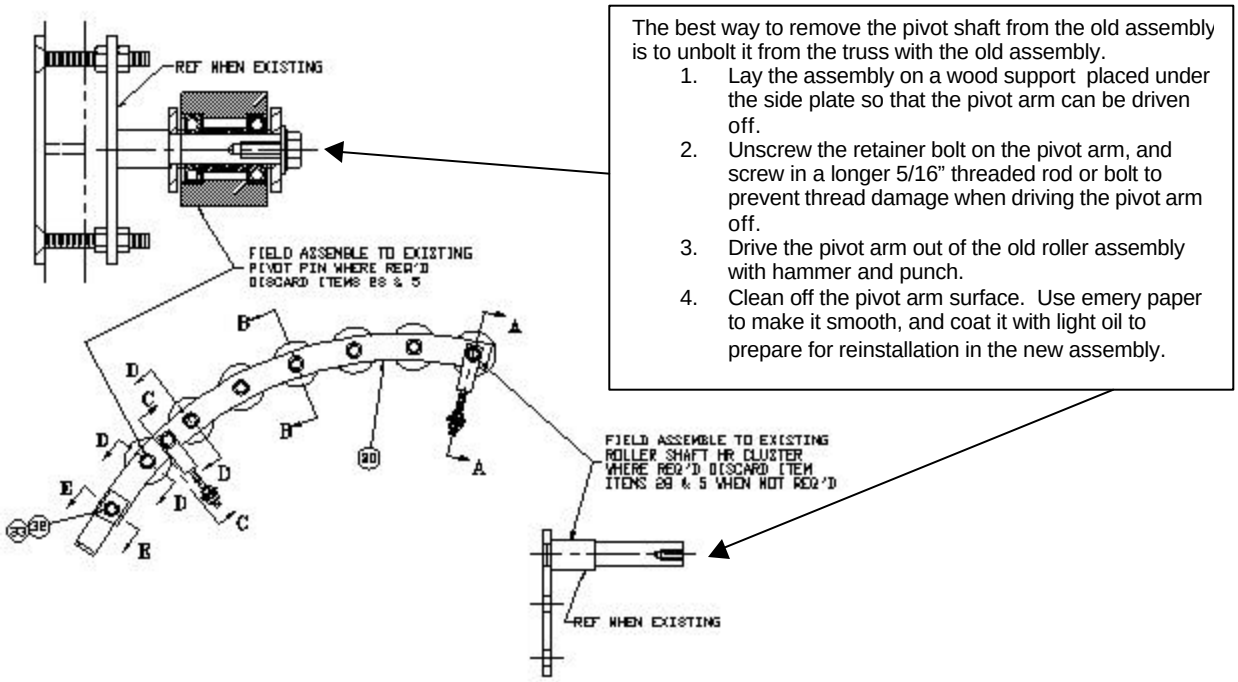
The spring tensioning device may use 1 or 2 springs, depending on the unit it is used on. The USP521121001 assembly is set up with 2 springs. The spring arrangement may be changed to one tensioning spring as shown below, and on diagram USP521121000.





Process for Mounting Inlet or Outlet Clusters on existing pivot pins

The Tensioning Assembly must be mounted onto the pivot pin on the truss. The diagram below shows two arrangements that may be found on field units. The existing pivot pin must be removed from the old assembly and reused to mount the new roller cluster assembly.

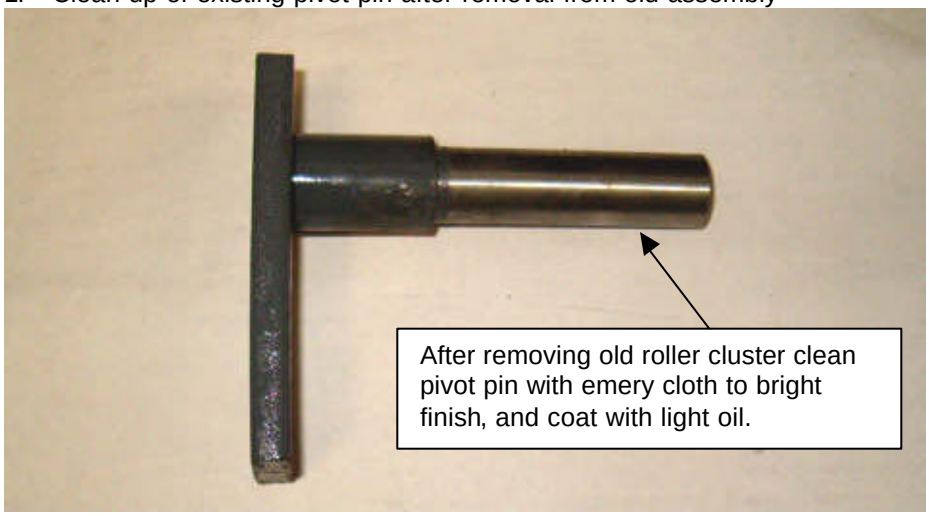


The best way to remove the pivot shaft from the old assembly is to unbolt it from the truss with the old assembly.

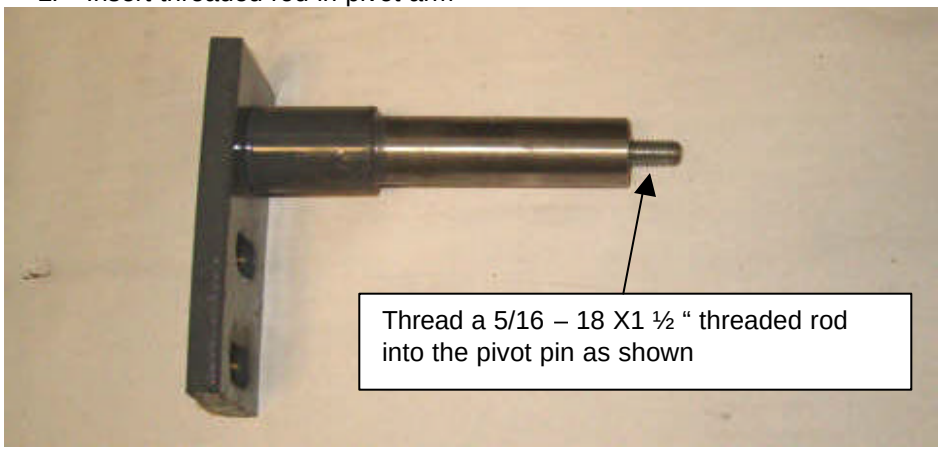
1. Lay the assembly on a wood support placed under the side plate so that the pivot arm can be driven off.
2. Unscrew the retainer bolt on the pivot arm, and screw in a longer 5/16" threaded rod or bolt to prevent thread damage when driving the pivot arm off.
3. Drive the pivot arm out of the old roller assembly with hammer and punch.
4. Clean off the pivot arm surface. Use emery paper to make it smooth, and coat it with light oil to prepare for reinstallation in the new assembly.

Mounting the Pivot Pin in the new assembly

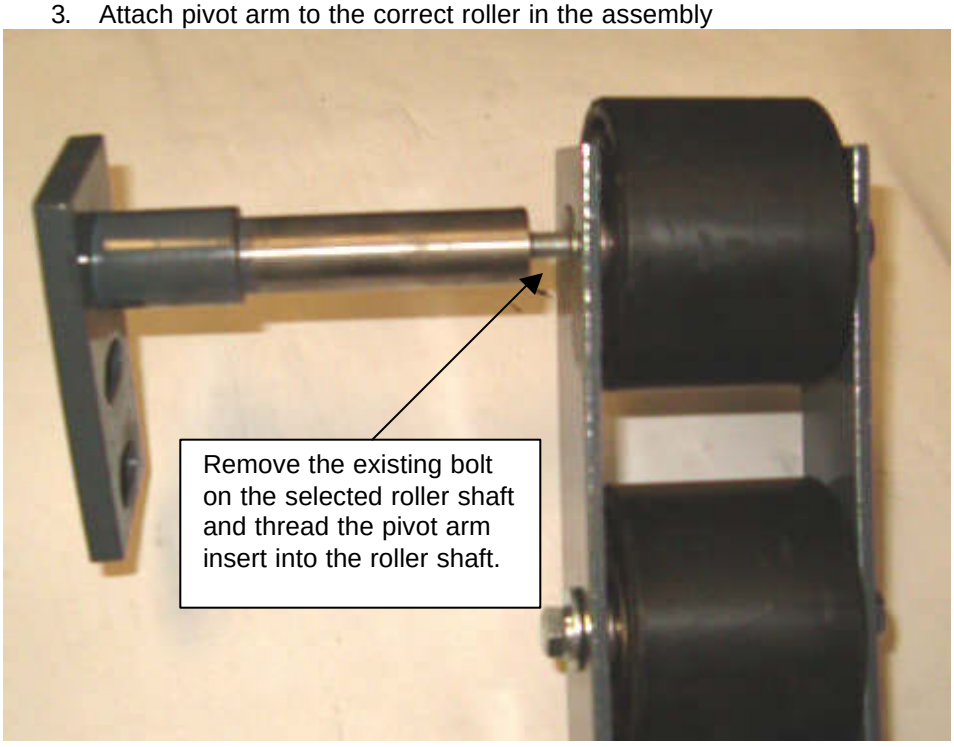
1. Clean up of existing pivot pin after removal from old assembly



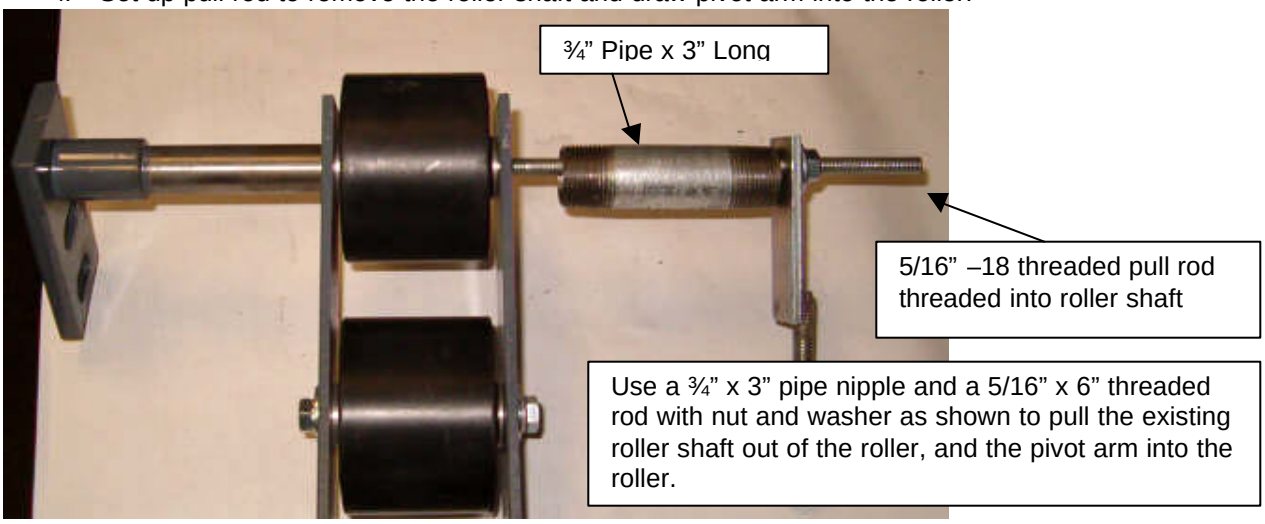
2. Insert threaded rod in pivot arm



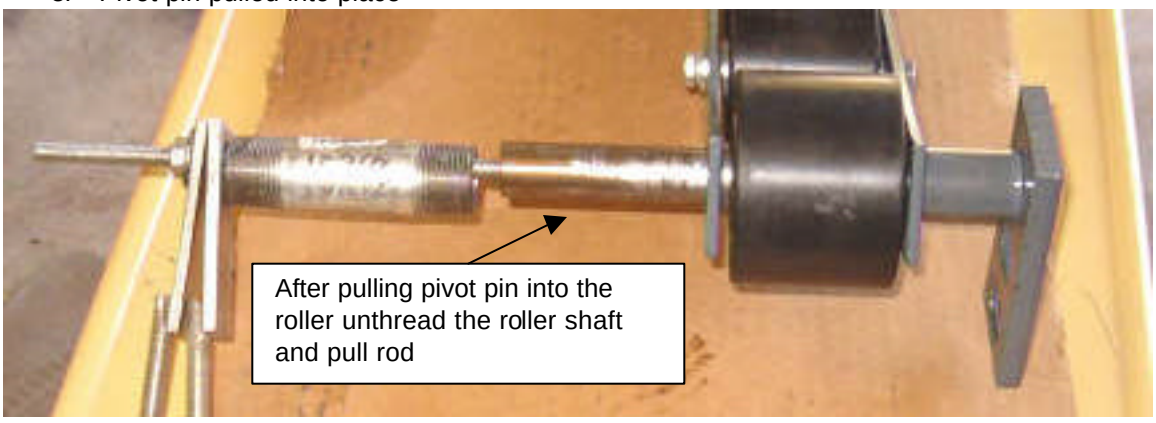
3. Attach pivot arm to the correct roller in the assembly



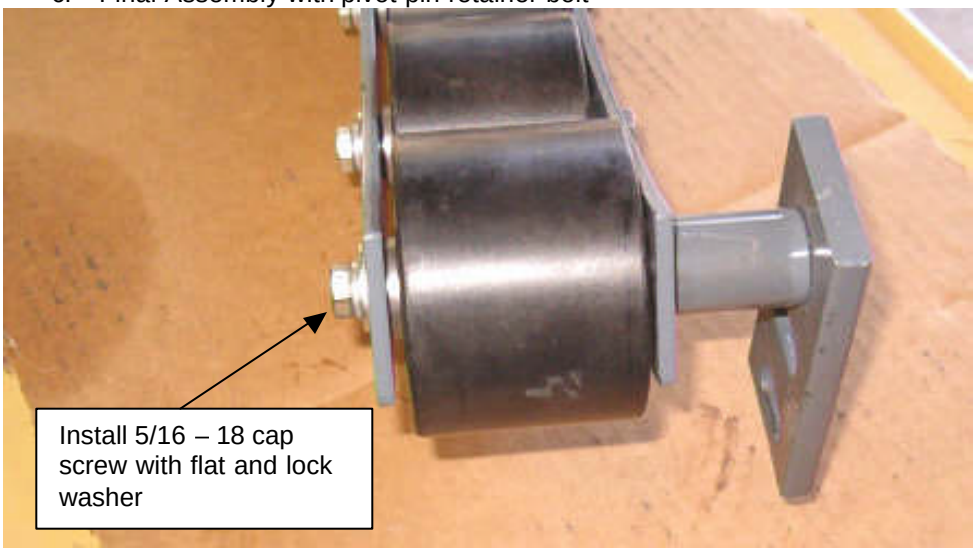
4. Set up pull rod to remove the roller shaft and draw pivot arm into the roller.

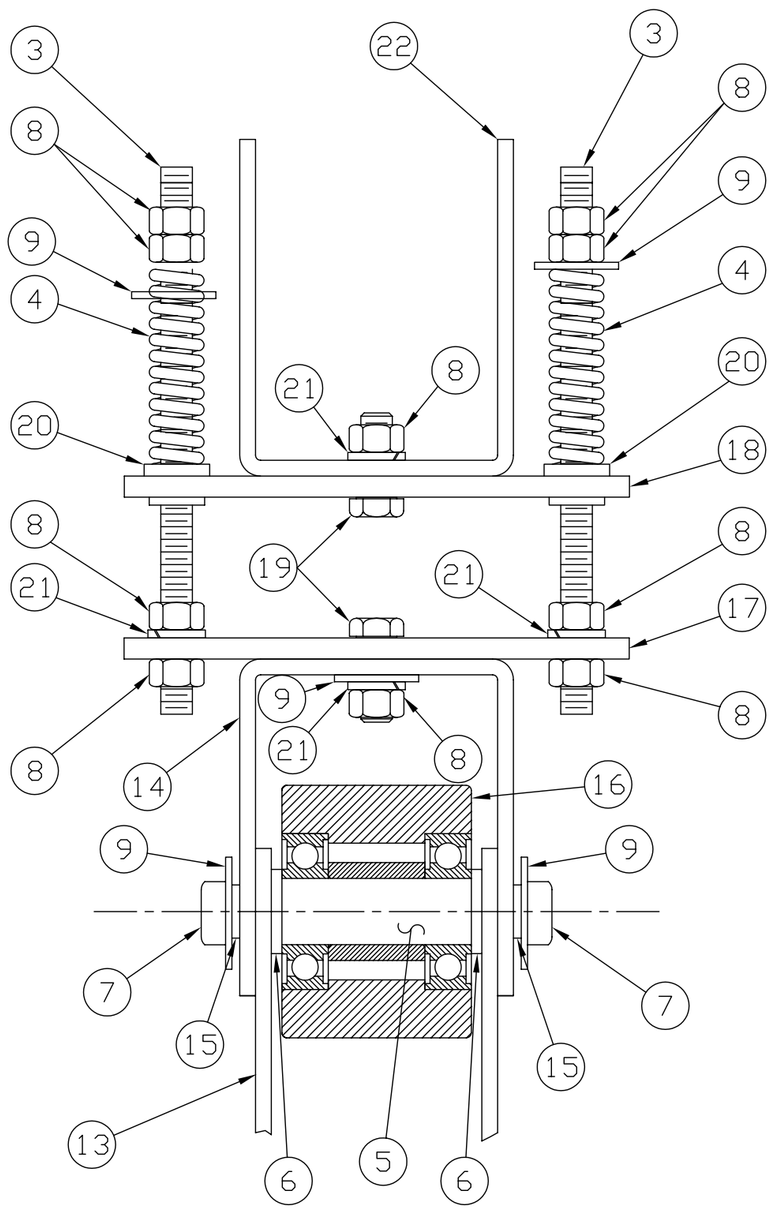


5. Pivot pin pulled into place

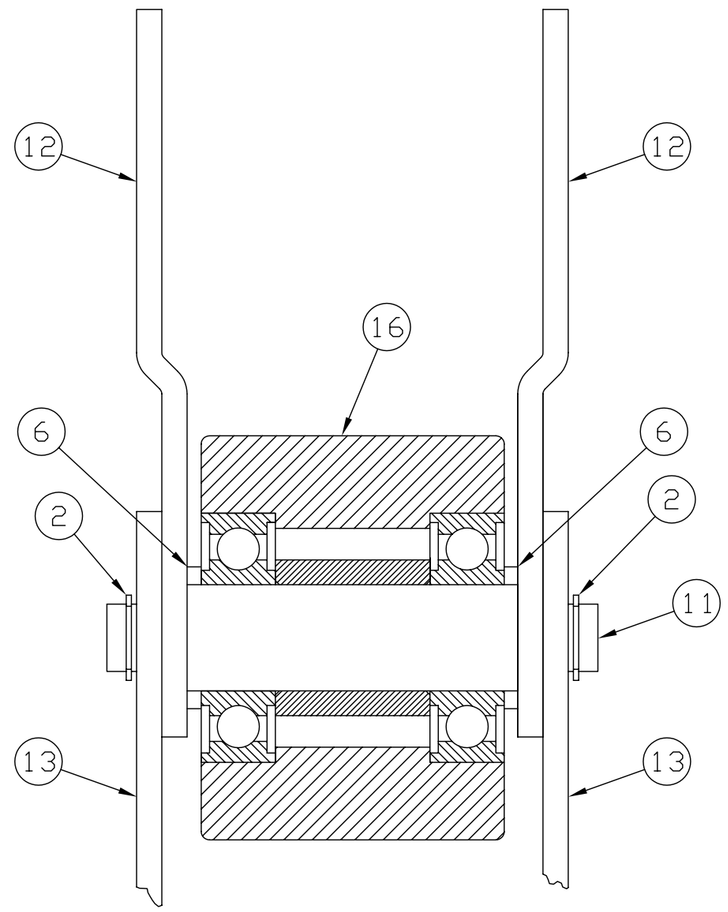


6. Final Assembly with pivot pin retainer bolt

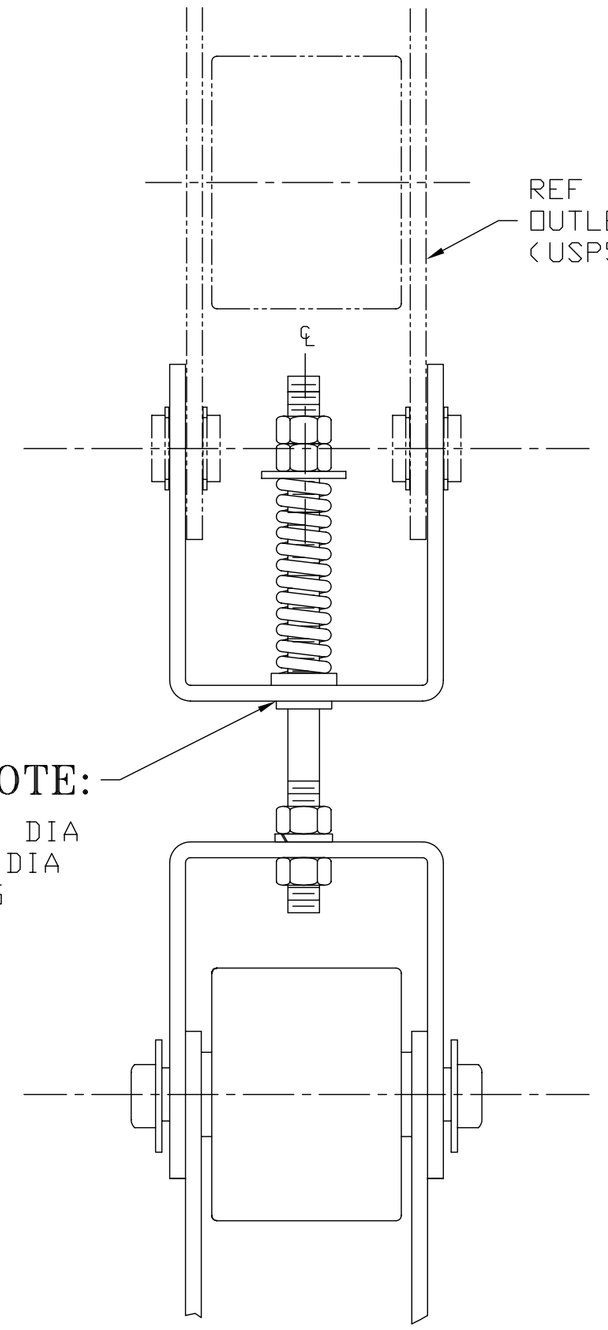




VIEW A-A



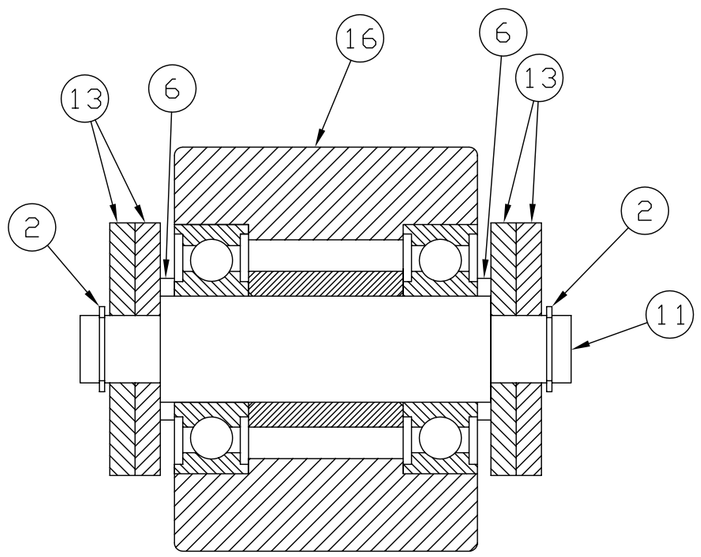
VIEW C-C



NOTE:

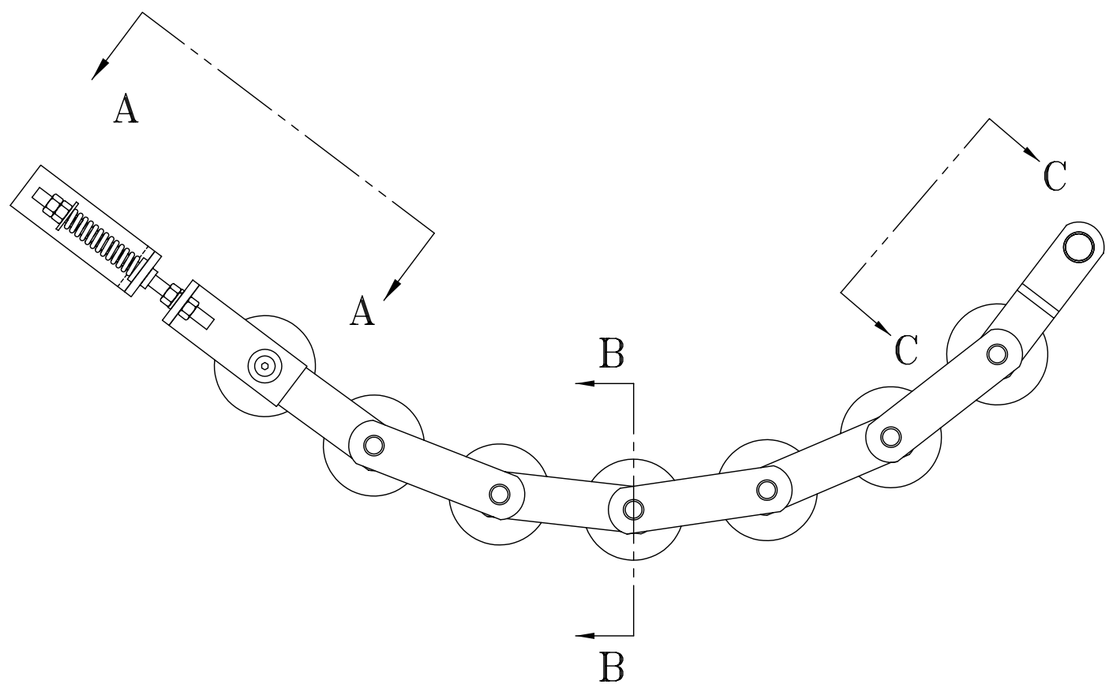
FIELD DRILL 7/16" DIA HOLE OUT TO 5/8" DIA FOR SINGLE SPRING ASSEMBLY WITH BUSHING ITEM 20

ALTERNATE FIELD ASSEMBLY FOR SINGLE SPRING



SECTION B-B

TYP (5) PLACES



INCH [METRIC]	
TOLERANCE UNLESS SHOWN	
SOURCE/SPEC#/FINISH/WT	

PLOT SCALE: 4.50

REV	DATE	CH'K	APP'D	F
Ø	9/2/2005	DJT	EGS	

DRAWN MWM

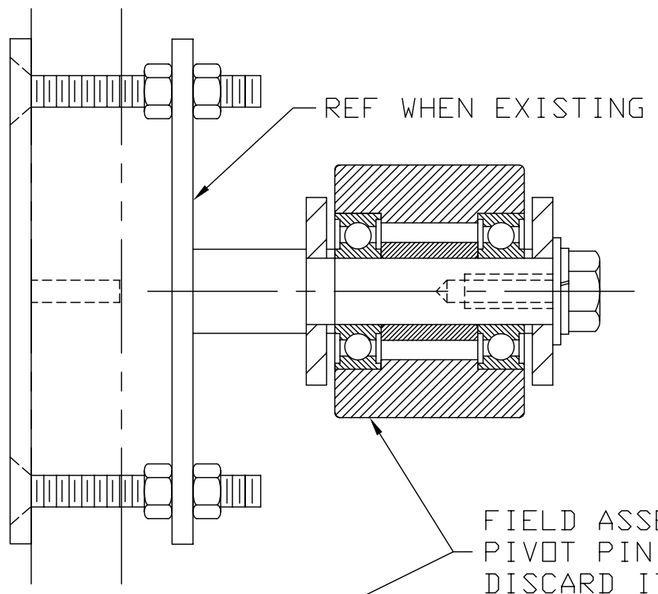
KONE

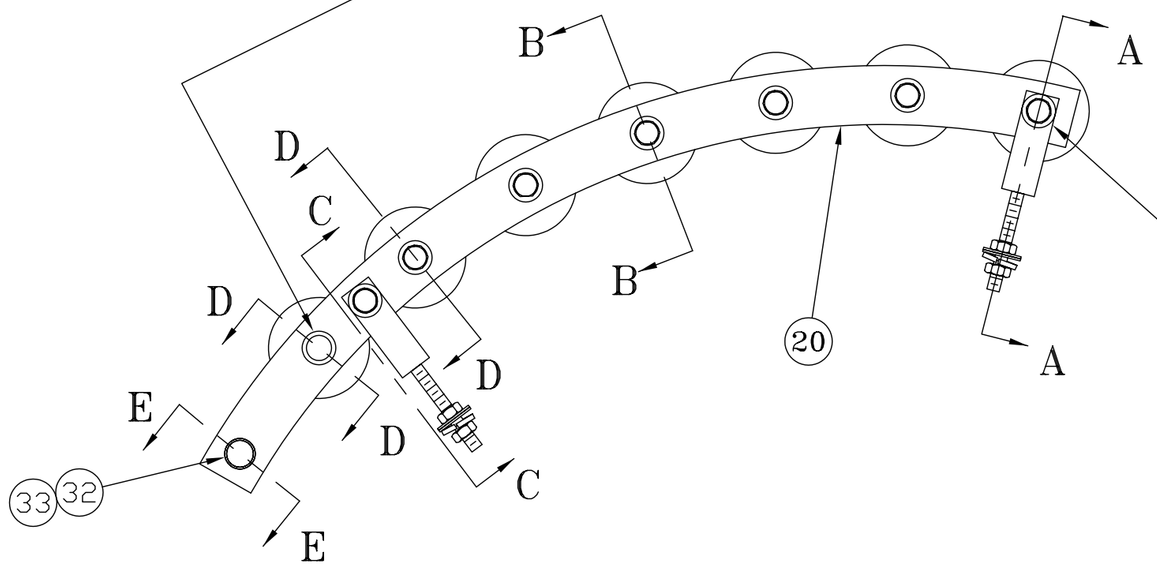
NAME
HANDRAIL ROLLER CLUSTER HR DR TENSION KIT

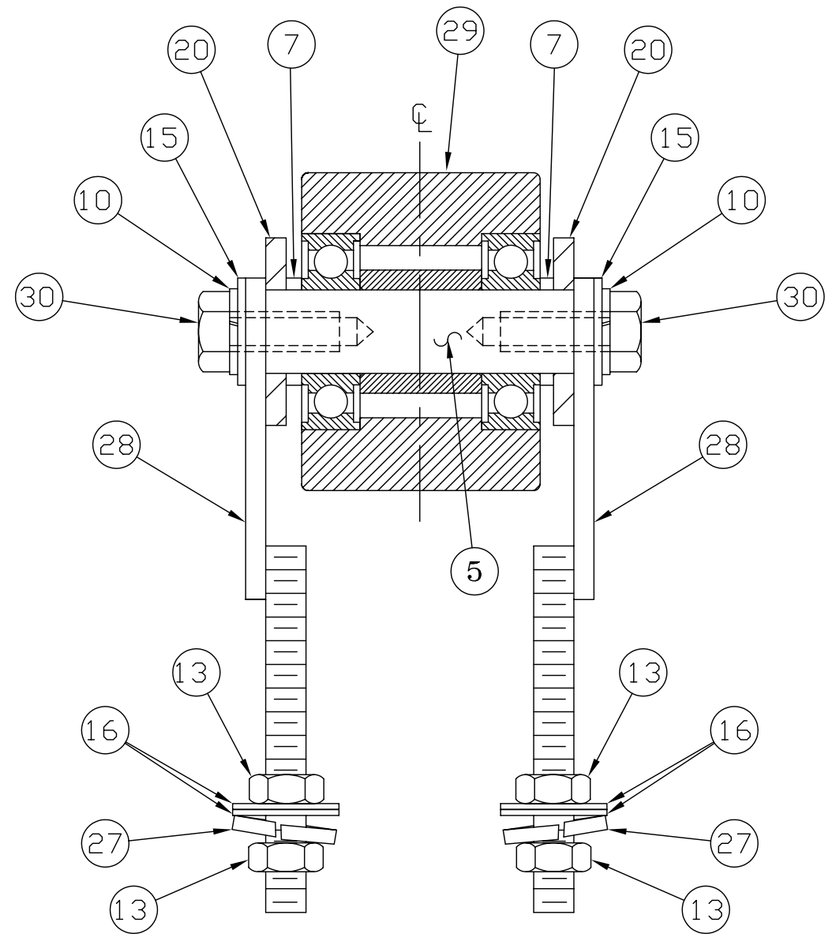
SHEET 1(1) C

USP521121000

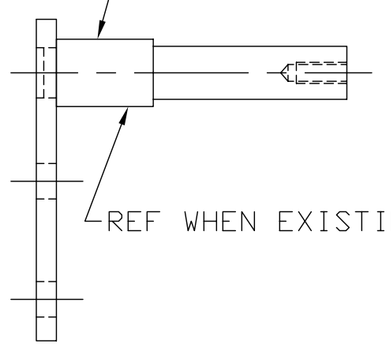
9/2/2005 2:05:50 PM

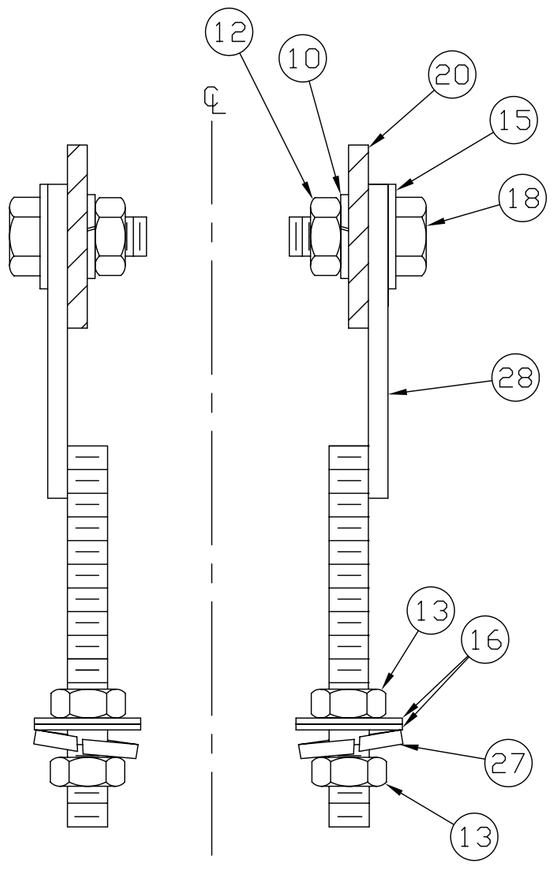




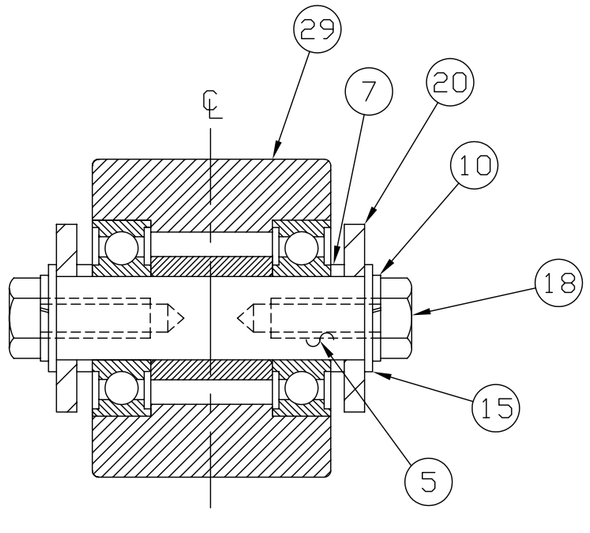


SECTION A-A

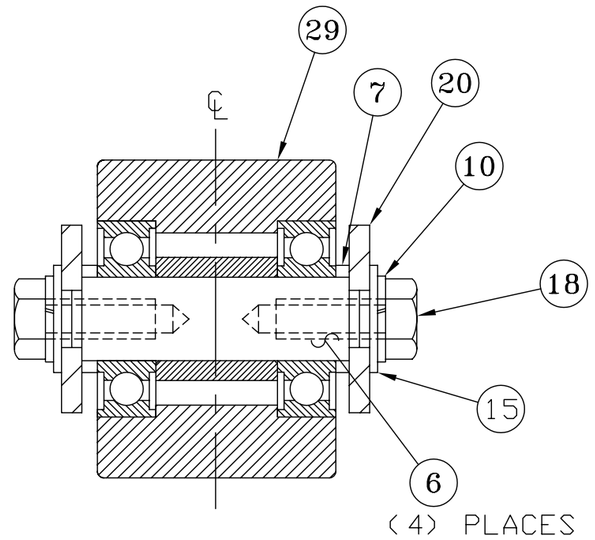




SECTION C-C

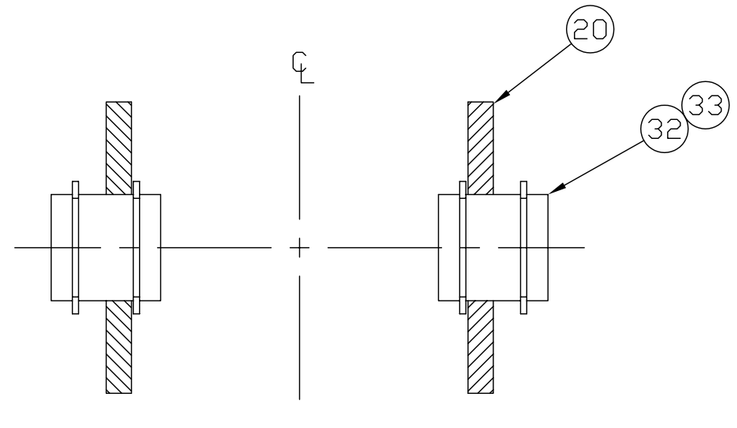


SECTION D-D
(2) PLACES



(4) PLACES

SECTION B-B
TYP (4) PLACES



SECTION E-E

INCH DIMENSIONS	
TOLERANCE UNLESS SHOWN	
SOURCE/SPEC#/FINISH/WT	

PLOT SCALE: 4.50

REV	DATE	CH'K	APP'D	F
0	8/31/05	DJT	EGS	

DRAWN
MWM

KONE

NAME
HANDRAIL ROLLER CLUSTER KIT (OUTLET OR INLET)

SHEET 1(1) C

USP521122000

8/31/2005 1:50:51 PM

Approvals & Version History

Checked by: EGS Date: 2005-09-20

Approved by: JMB Date: 2005-09-20

Issue	Date	Description of Change	Ref. CR	Approved by
R0	9/20/05	New		J Bril