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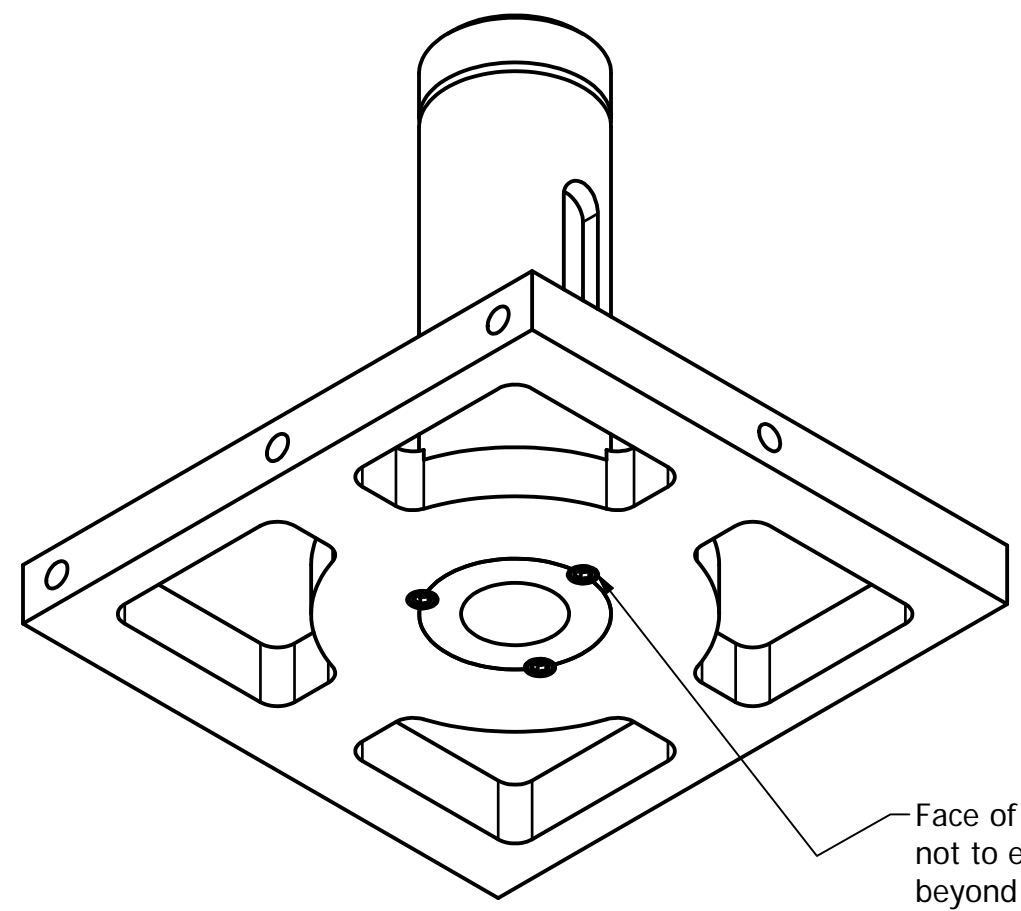
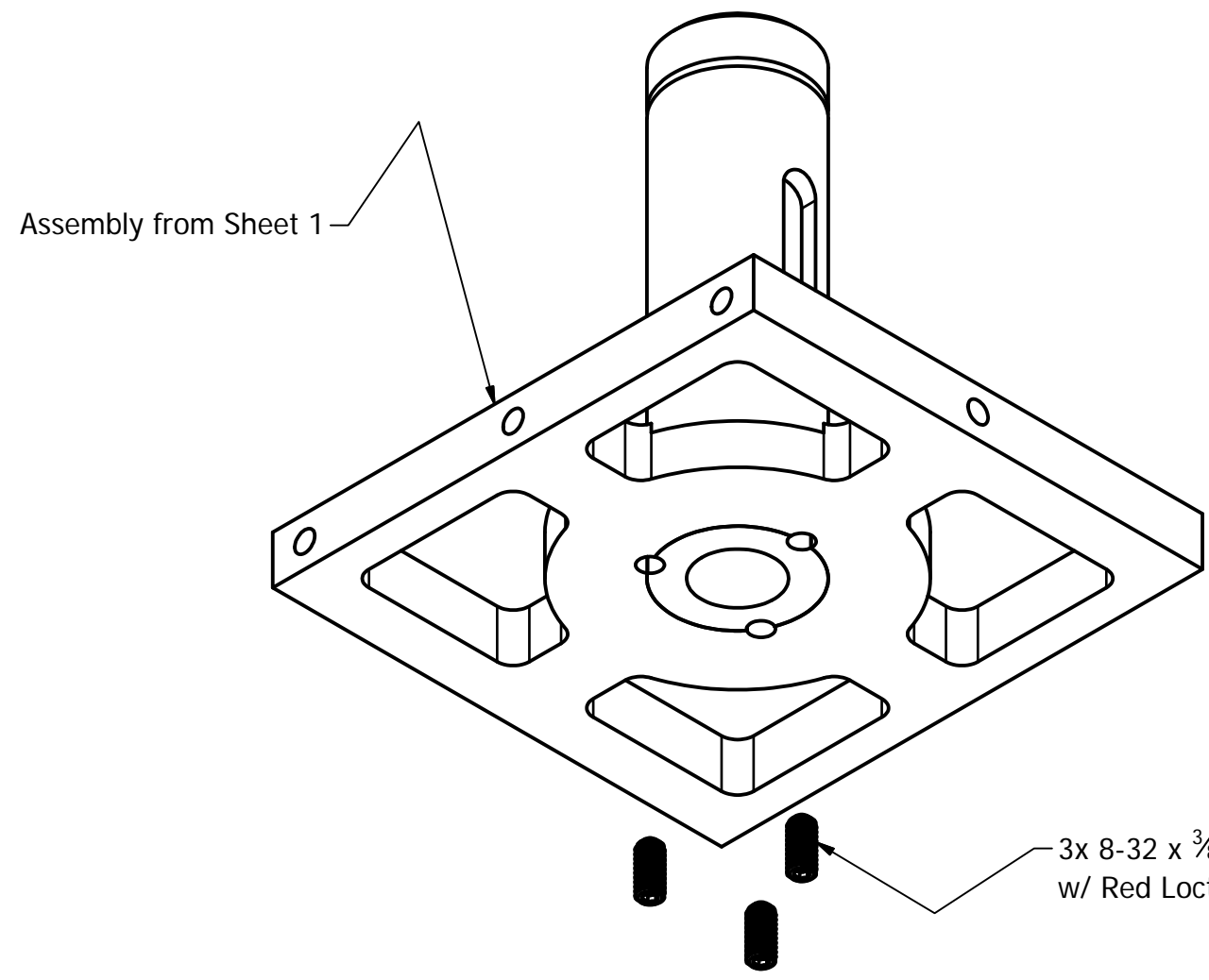
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DRAWN	11/27/2009	TITLE <b>Pivot Assembly Drawings                  Assembly Sequence</b>	
Dad			
CHECKED			
QA			
MFG		SIZE	DWG NO
APPROVED		<b>B</b>	Pivot Asm
		SCALE 1 : 1	REV
			SHEET 1 OF 18

4 | 3 | 2 | 1

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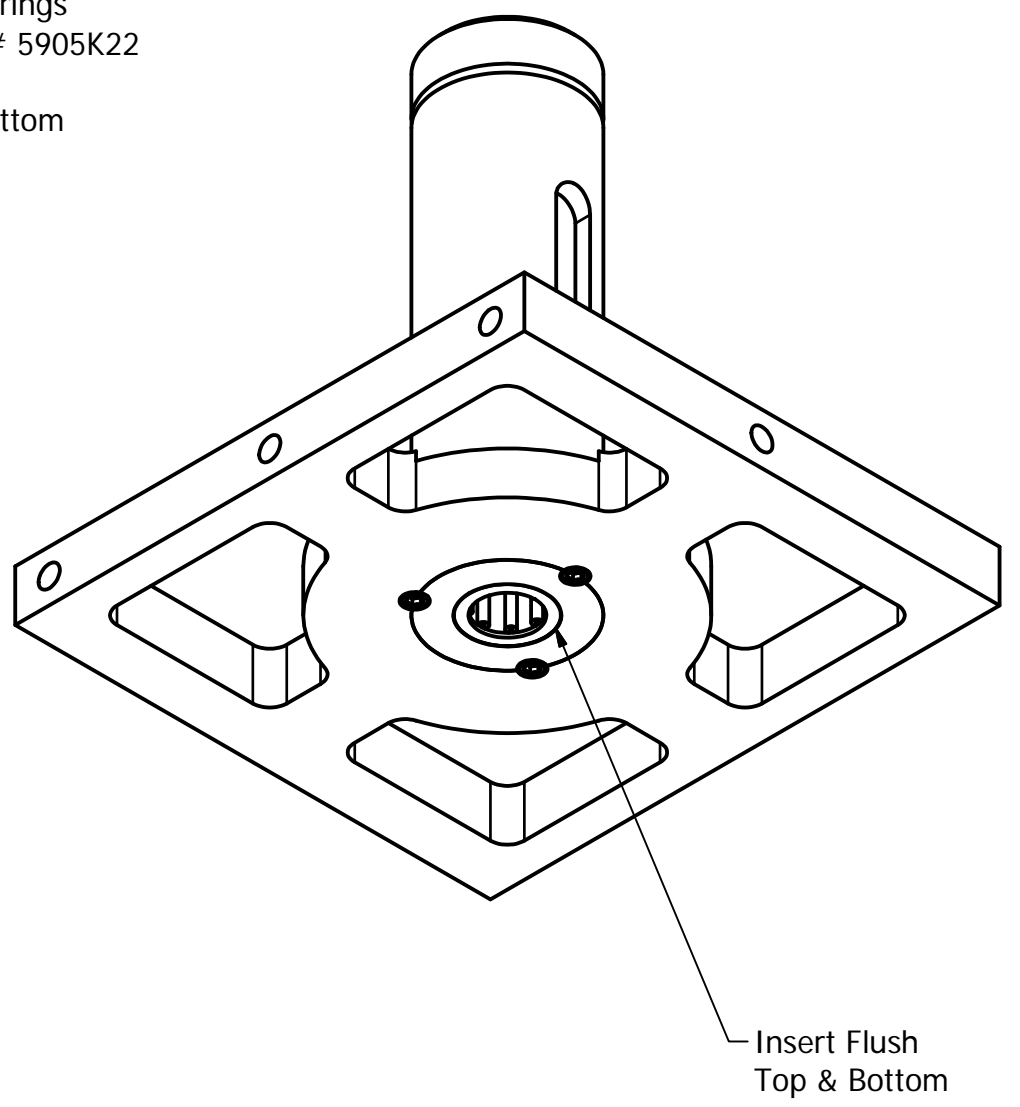
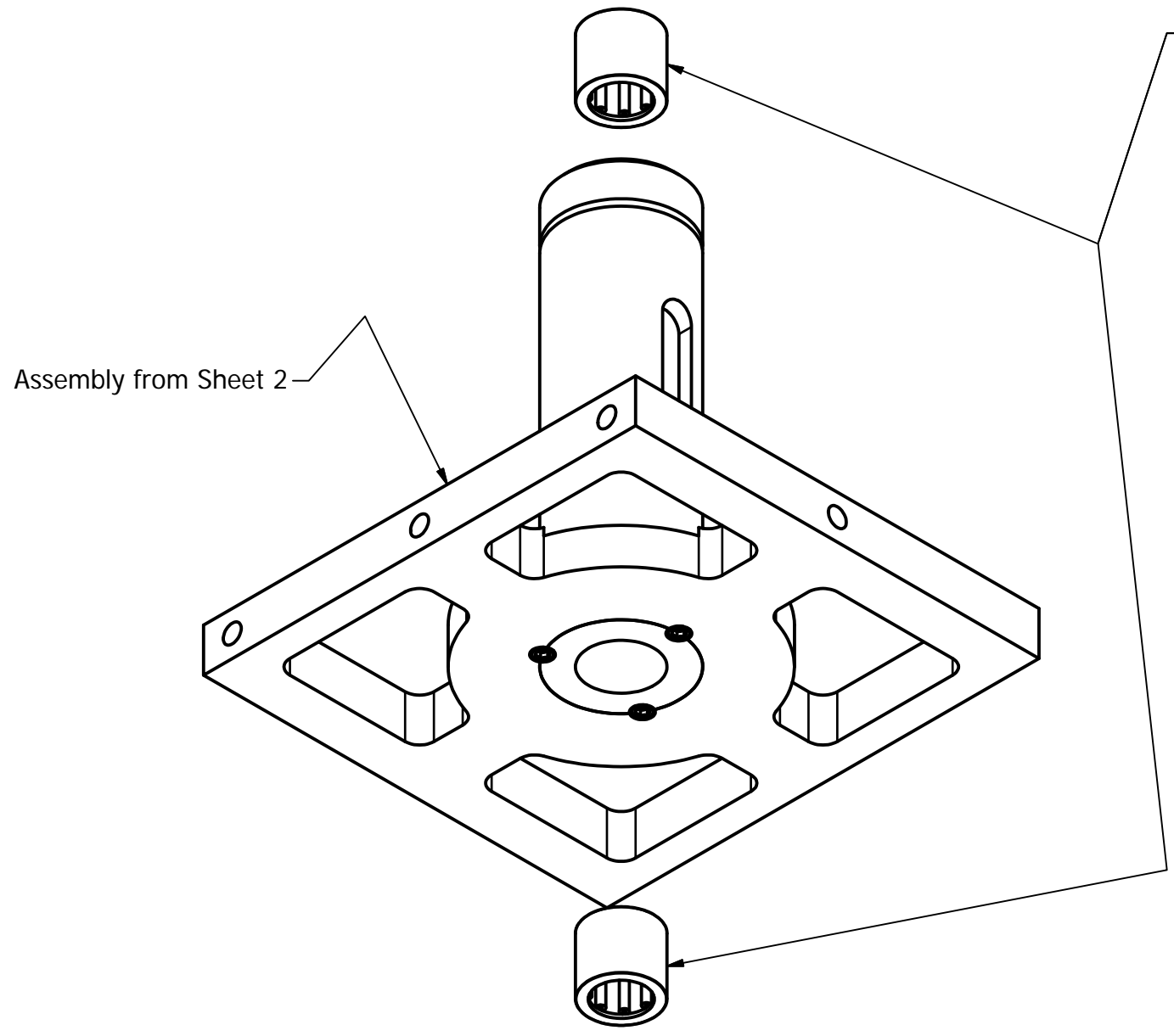


DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings                  Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE	DWG NO	REV
			<b>B</b>	Pivot Asm	
SCALE 1 : 1			SHEET 2 OF 18		

4 | 3 | 2 | 1

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Assembly from Sheet 2

3/8" Open Needle Bearings  
 McMaster-Carr Part # 5905K22  
 (2 req'd per Pivot)  
 Press Fitted top & bottom  
 of Pivot Tube

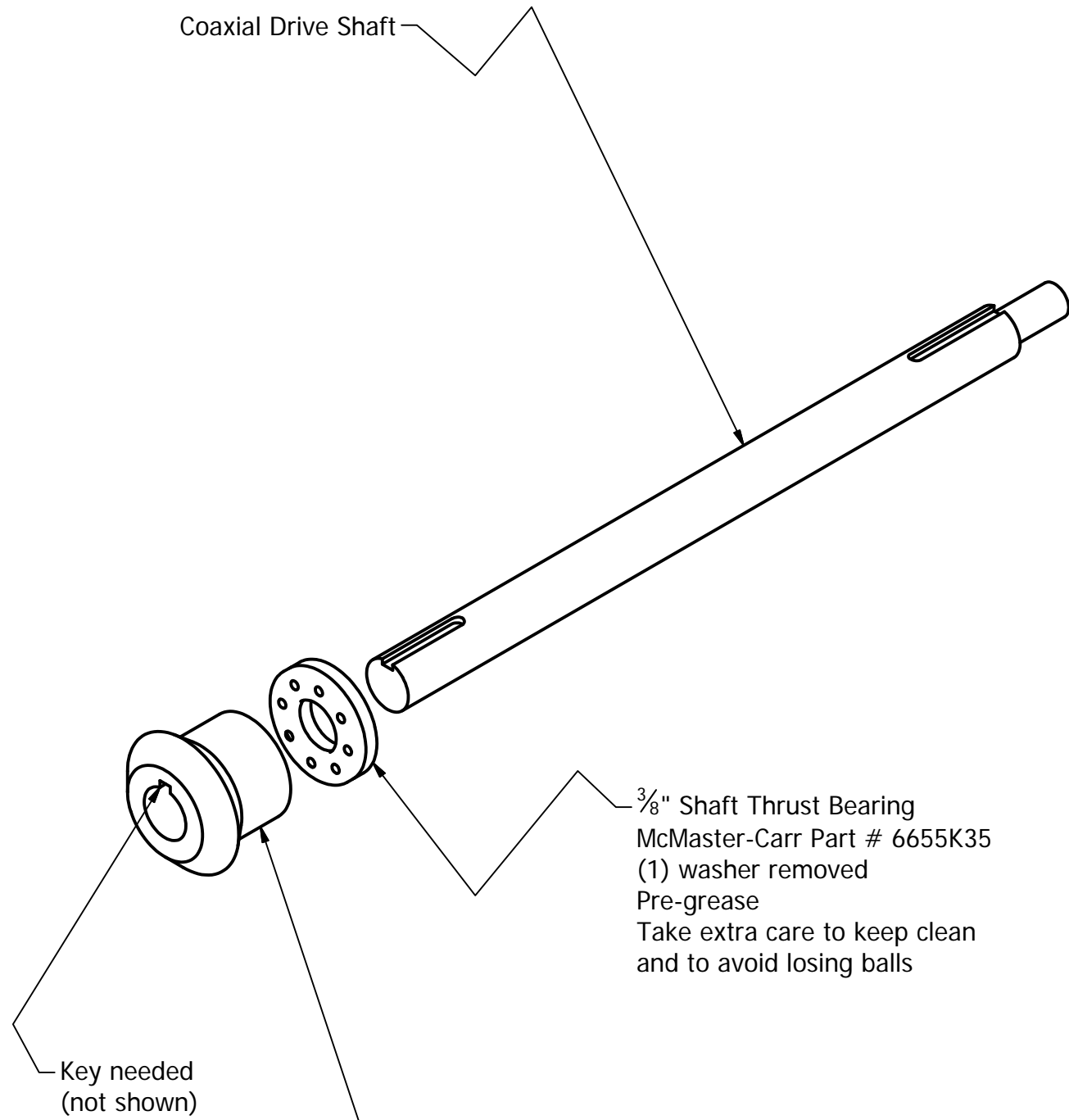
Insert Flush  
 Top & Bottom

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
			SCALE 1 : 1	SHEET 3 OF 18	

4 | 3 | 2 | 1

4 | 3 | 2 | 1

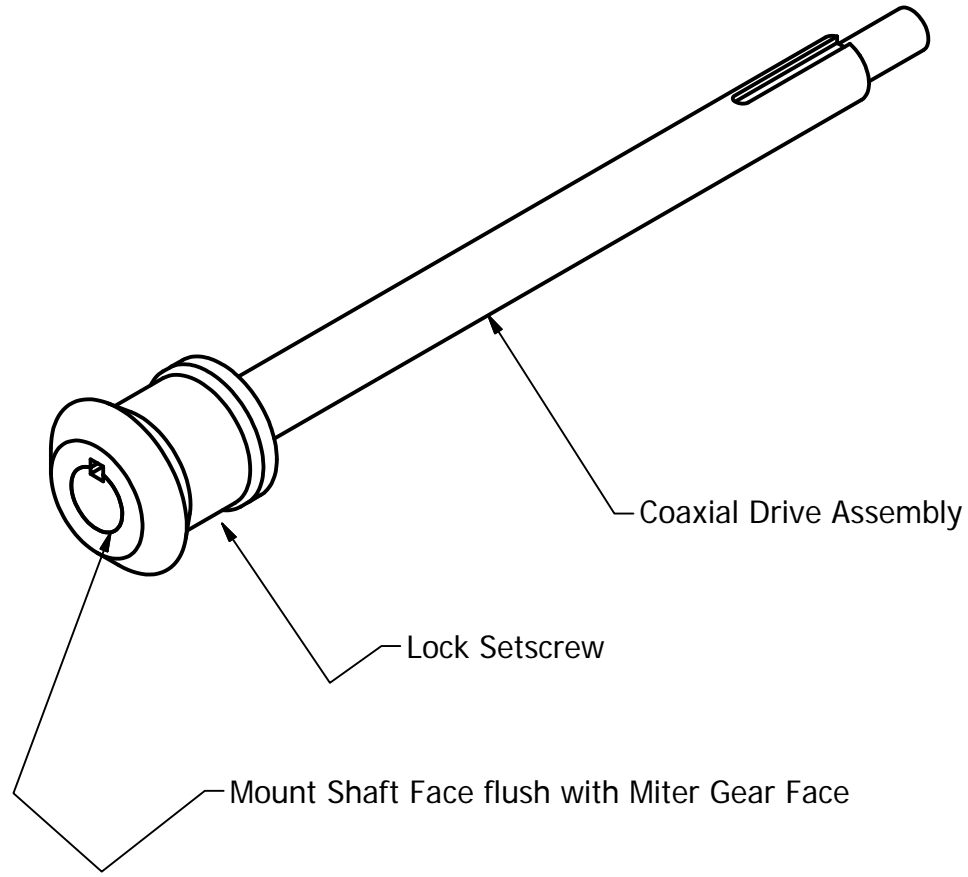
Coaxial Drive Shaft



$\frac{3}{8}$ " Shaft Thrust Bearing  
 McMaster-Carr Part # 6655K35  
 (1) washer removed  
 Pre-grease  
 Take extra care to keep clean  
 and to avoid losing balls

Miter Gear - 20° Pressure Angle - Diametral Pitch = 16 - 16T  
 McMaster-Carr Part # 6843K11 - or  
 Boston Gear Catalog # HLK110Y (Item Code 12326)  
 Boston Gear part has hardened teeth

Key needed  
 (not shown)



Coaxial Drive Assembly

Lock Setscrew

Mount Shaft Face flush with Miter Gear Face

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DRAWN	Dad	11/27/2009	TITLE	
CHECKED				
QA			Pivot Assembly Drawings Assembly Sequence	
MFG				
APPROVED			SIZE	DWG NO
			B	Pivot Asm
			SCALE 1 : 1	REV
			SHEET 4 OF 18	

4

3

2

1

Assembly from Sheet 3

Assembly from Sheet 4  
Coaxial Drive Assembly

Clean off excess  
exterior grease  
after assembly

Prelubricate (grease)  
Needle Bearings & Drive Shaft  
Insert Shaft carefully to avoid  
damage to Needle Bearings

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO Pivot Asm	REV
			SCALE 1 : 1	SHEET 5 OF 18	

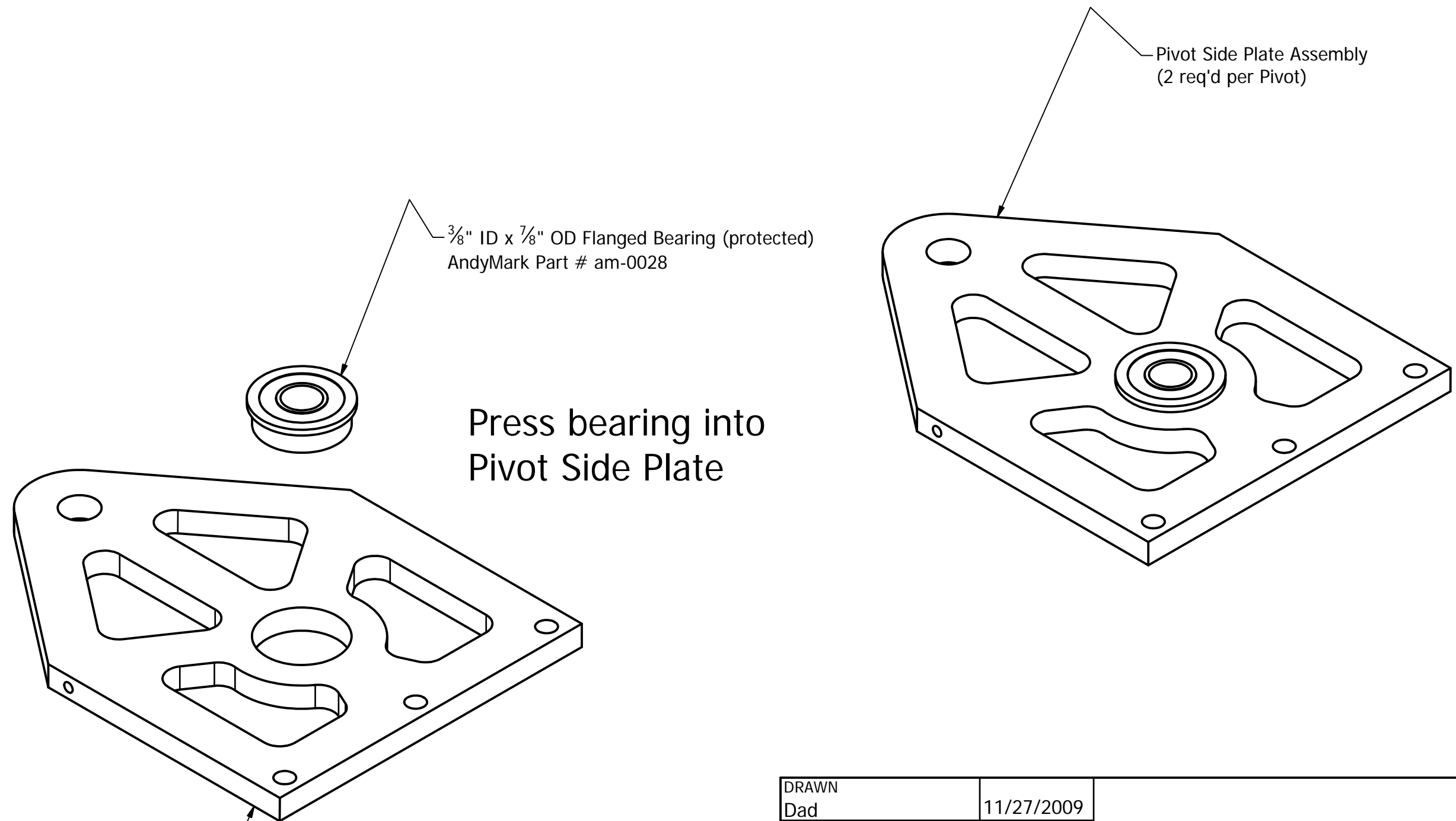
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Pivot Side Plate

Press bearing into  
Pivot Side Plate

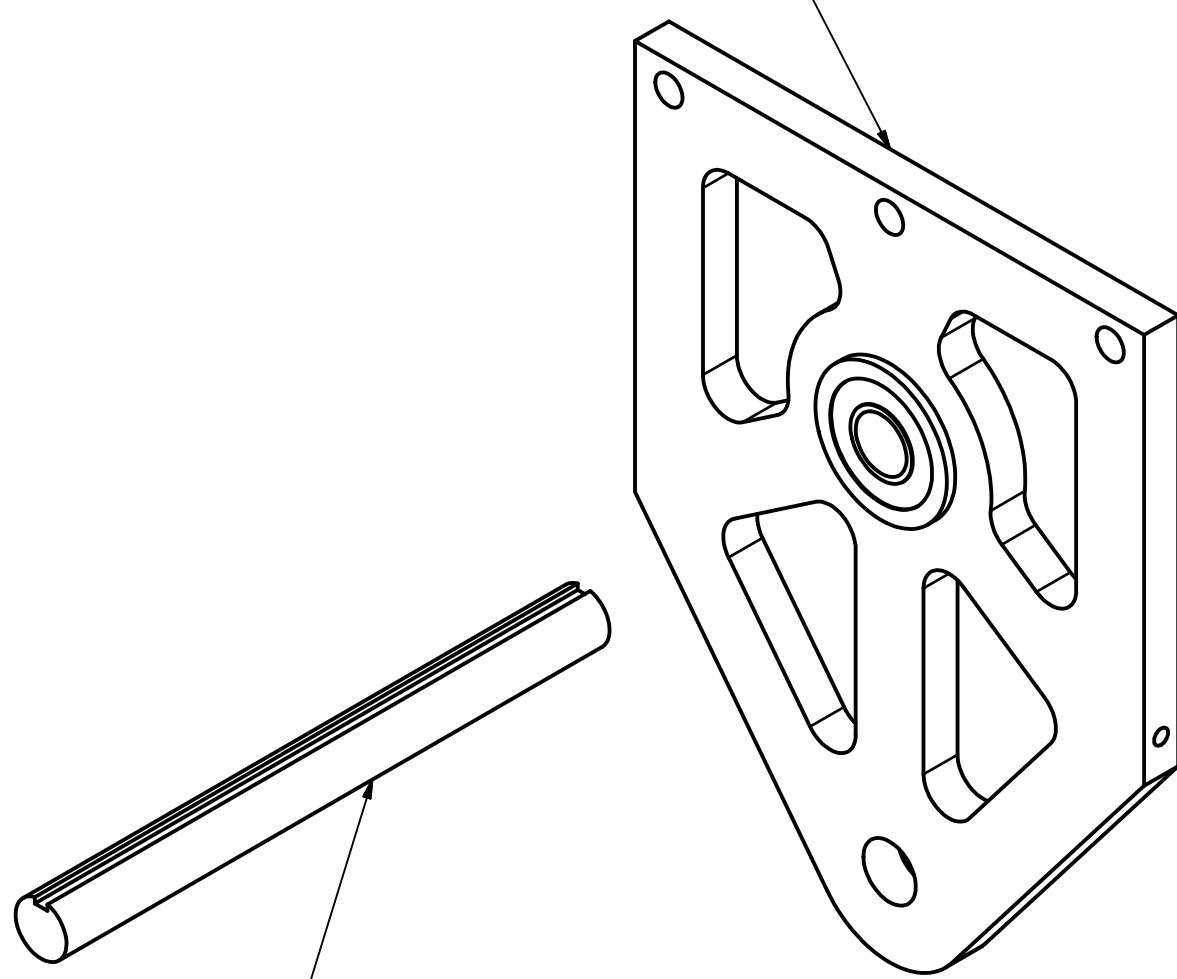
Pivot Side Plate Assembly  
(2 req'd per Pivot)

$\frac{3}{8}$ " ID x  $\frac{7}{8}$ " OD Flanged Bearing (protected)  
AndyMark Part # am-0028

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings                  Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE	DWG NO	REV
			<b>B</b>	Pivot Asm	
SCALE 1 : 1			SHEET 6 OF 18		

4 | 3 | 2 | 1

Assembly from Sheet 6  
Pivot Side Plate Assembly  
(1 per Pivot req'd for this purpose)



Transfer Shaft

1x assembly needed per Pivot

Shaft Face  
flush with  
Plate Exterior

DRAWN Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings                  Assembly Sequence</b>		
CHECKED				
QA				
MFG				
APPROVED		SIZE <b>B</b>	DWG NO Pivot Asm	REV
		SCALE 1 : 1	SHEET 7 OF 18	

4

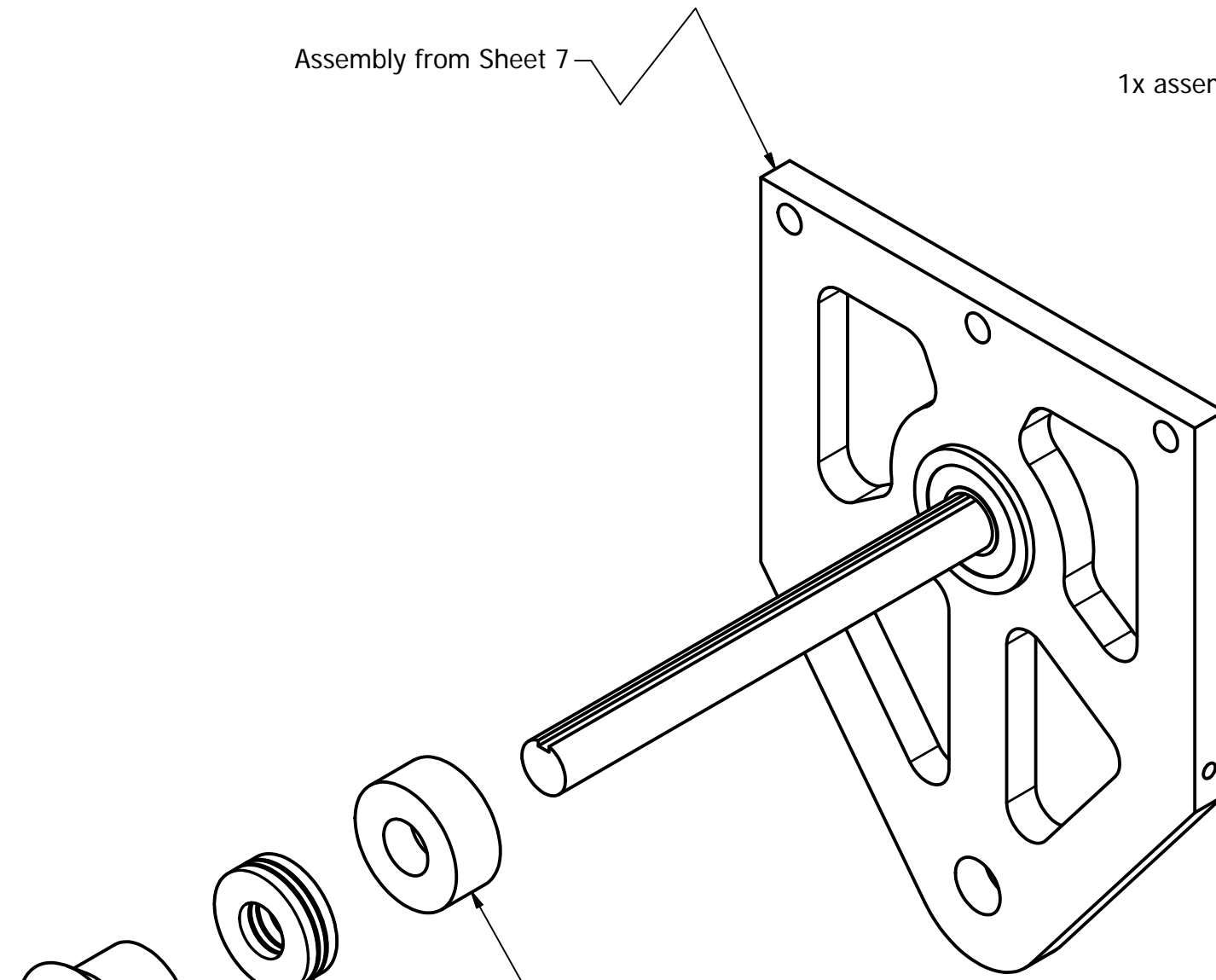
3

2

1

Assembly from Sheet 7

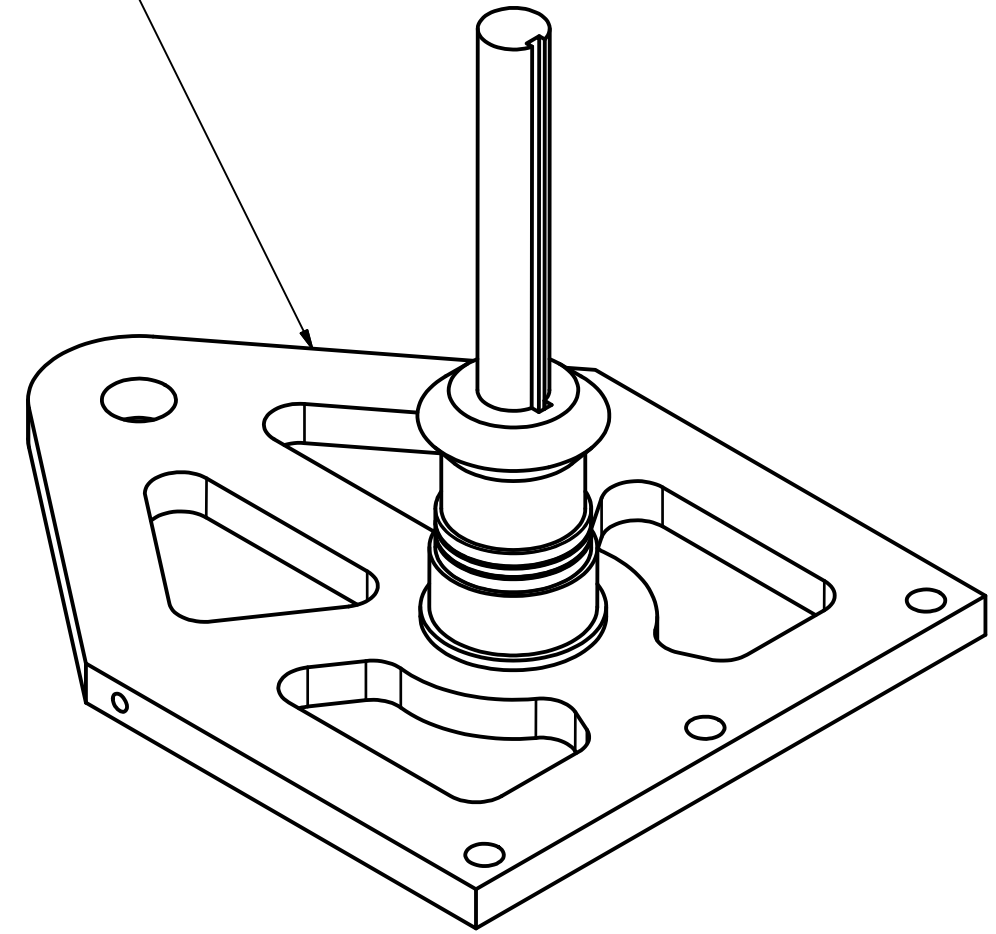
1x assembly needed per Pivot



Transfer Shaft Spacer

3/8" Shaft Thrust Bearing  
McMaster-Carr Part # 6655-35  
Pre-lubricated

Miter Gear - 20° Pressure Angle - Diametral Pitch = 16 - 16T  
McMaster-Carr Part # 6843K11 - or  
Boston Gear Catalog # HLK110Y (Item Code 12326)  
Boston Gear part has hardened teeth

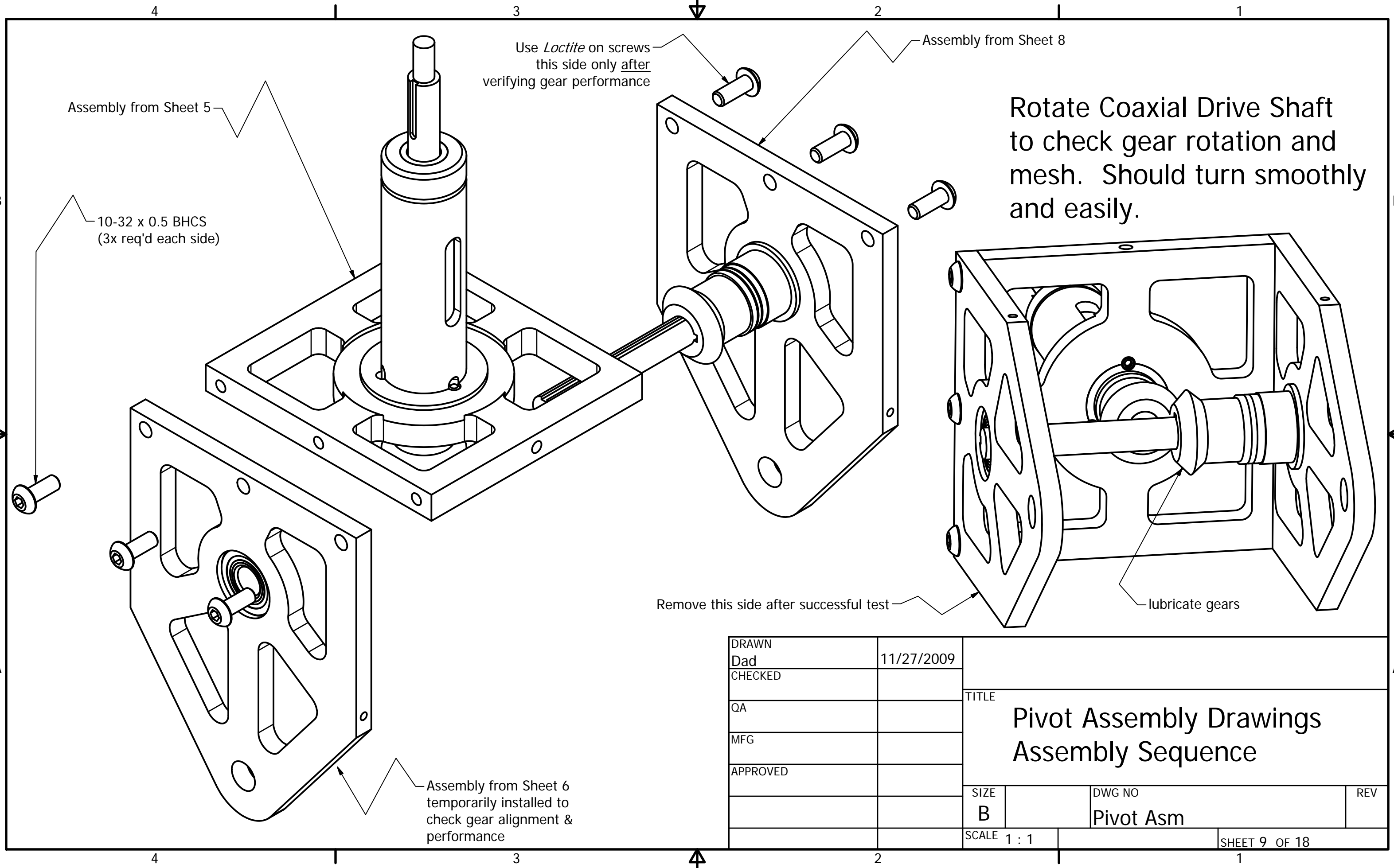


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DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
SCALE 1 : 1			SHEET 8 OF 18		

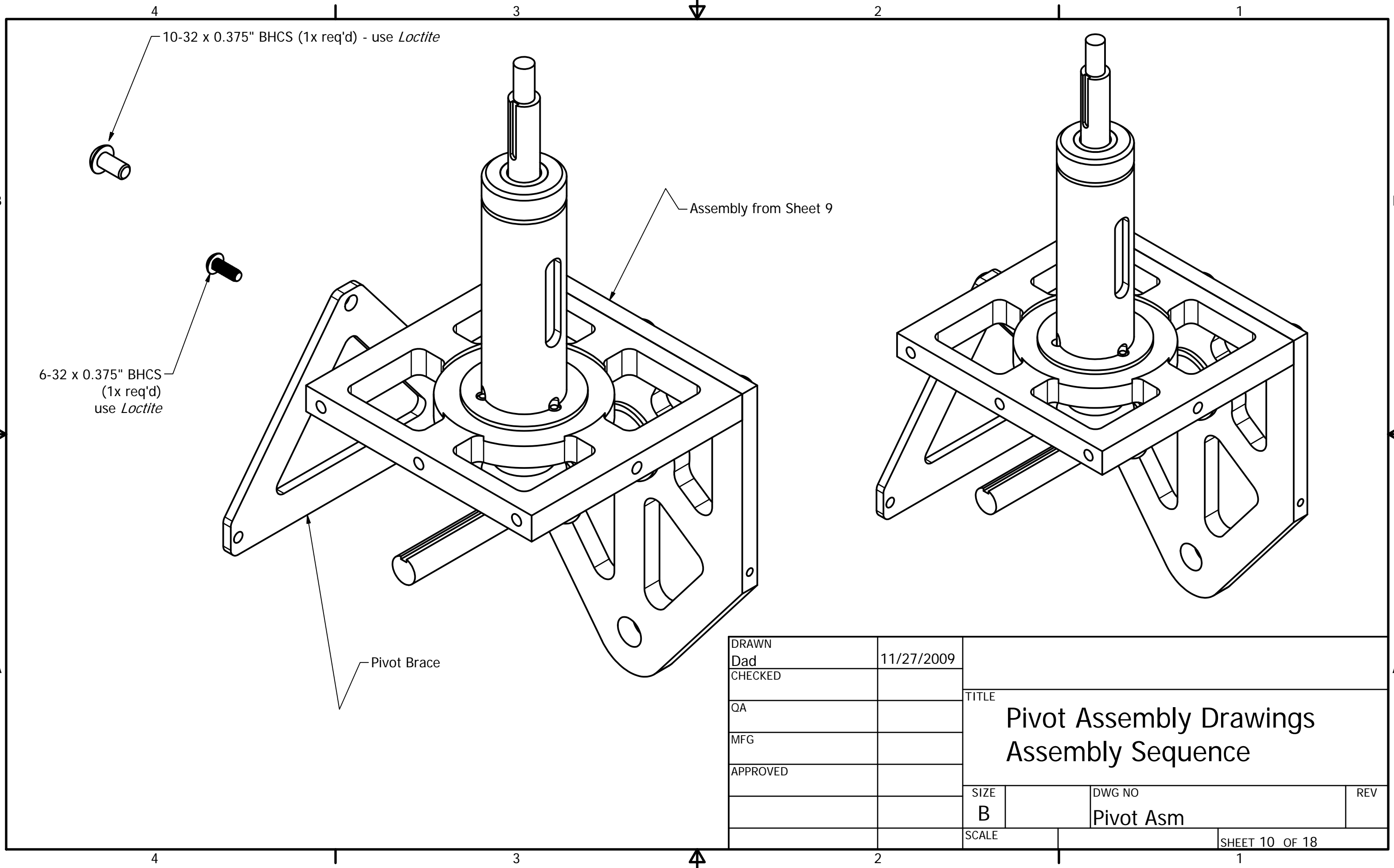




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DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
			SCALE 1 : 1	SHEET 9 OF 18	



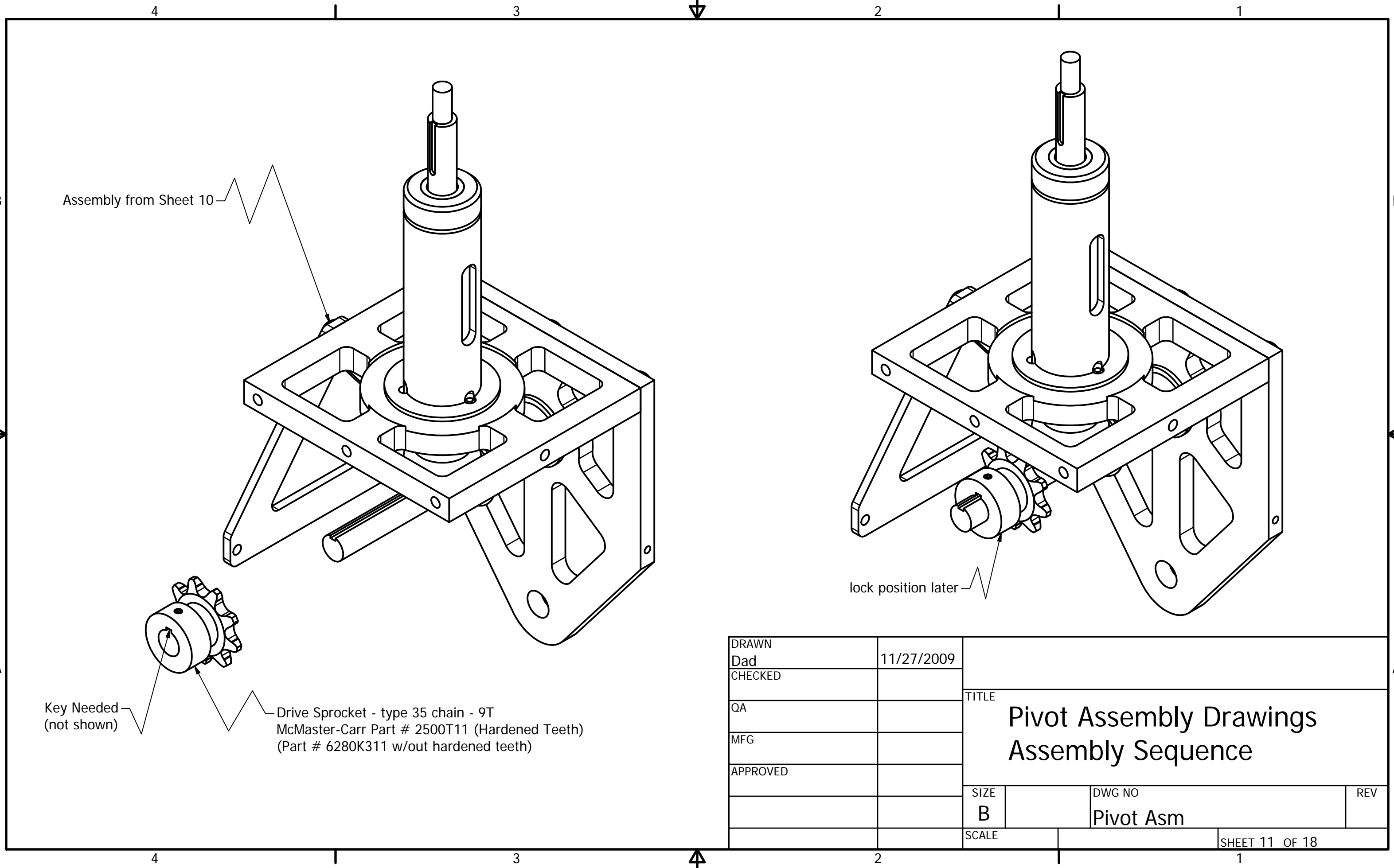
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DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings                  Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE	DWG NO	REV
			<b>B</b>	Pivot Asm	
			SCALE	SHEET 10 OF 18	

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Assembly from Sheet 10

lock position later

Key Needed  
(not shown)

Drive Sprocket - type 35 chain - 9T  
McMaster-Carr Part # 2500T11 (Hardened Teeth)  
(Part # 6280K311 w/out hardened teeth)

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings                  Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE	DWG NO	REV
			<b>B</b>	Pivot Asm	
			SCALE	SHEET 11 OF 18	

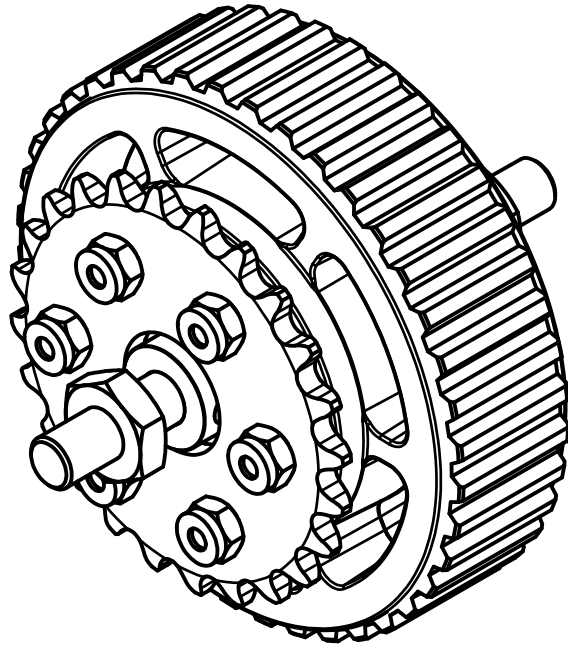
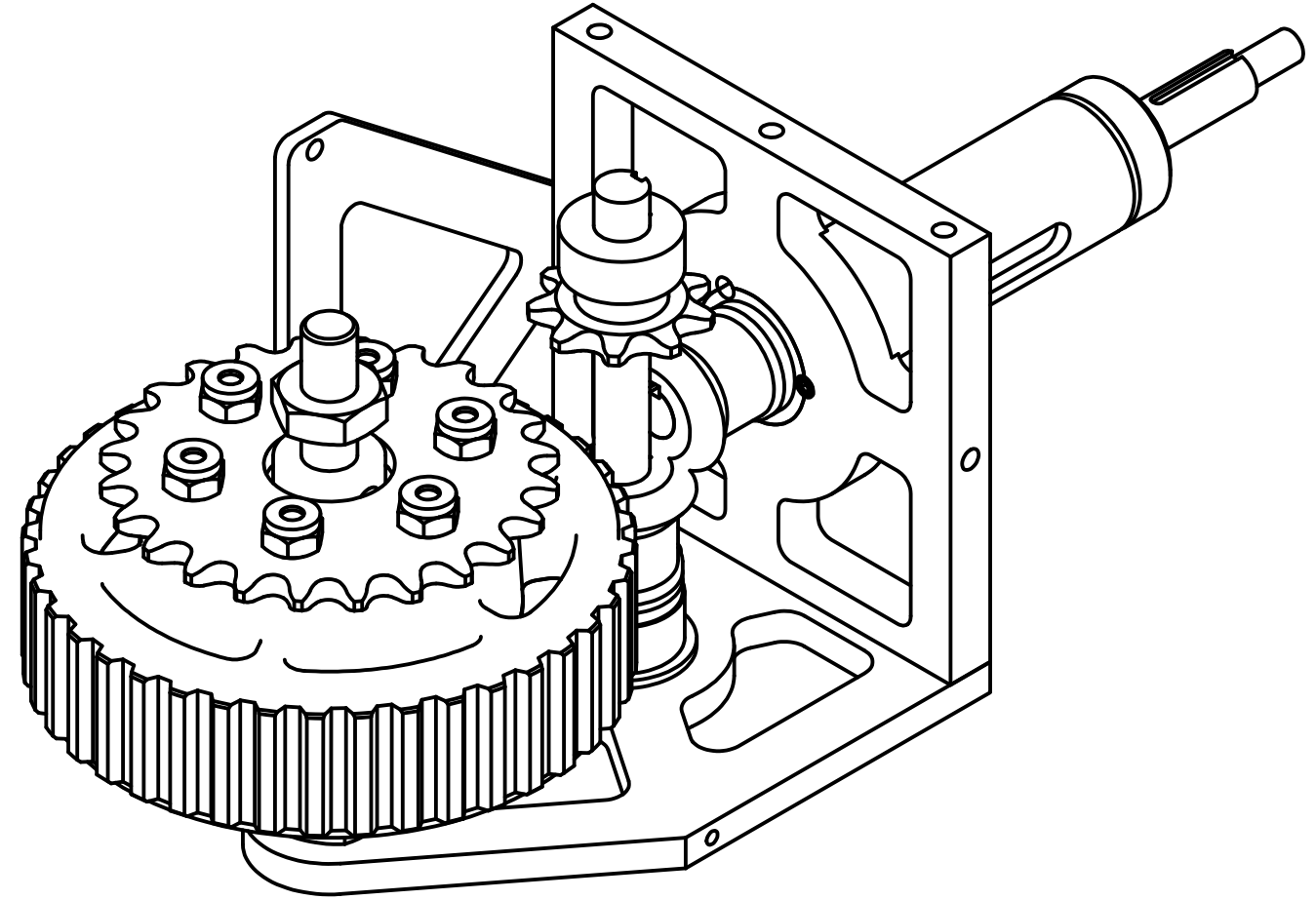
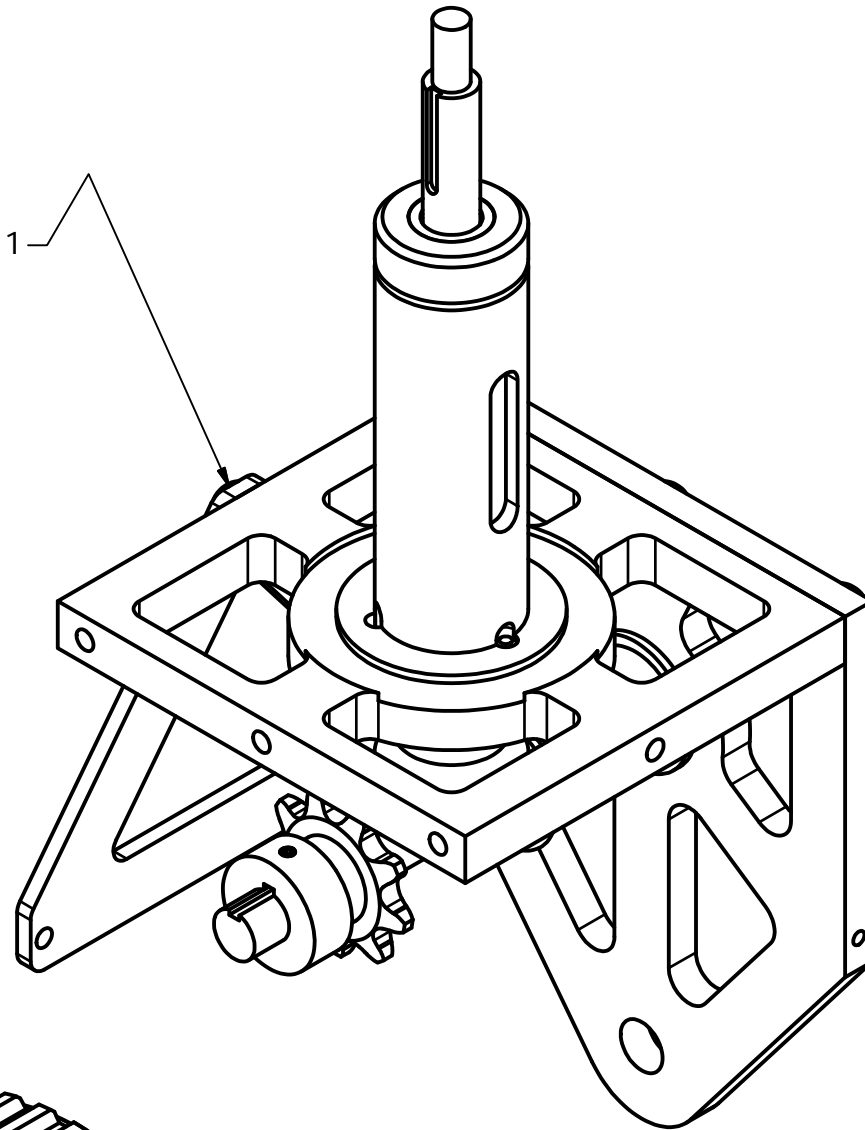
4

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Assembly from Sheet 11



4" Plaction Wheel / Axle  
Assembly  
(documented elsewhere)

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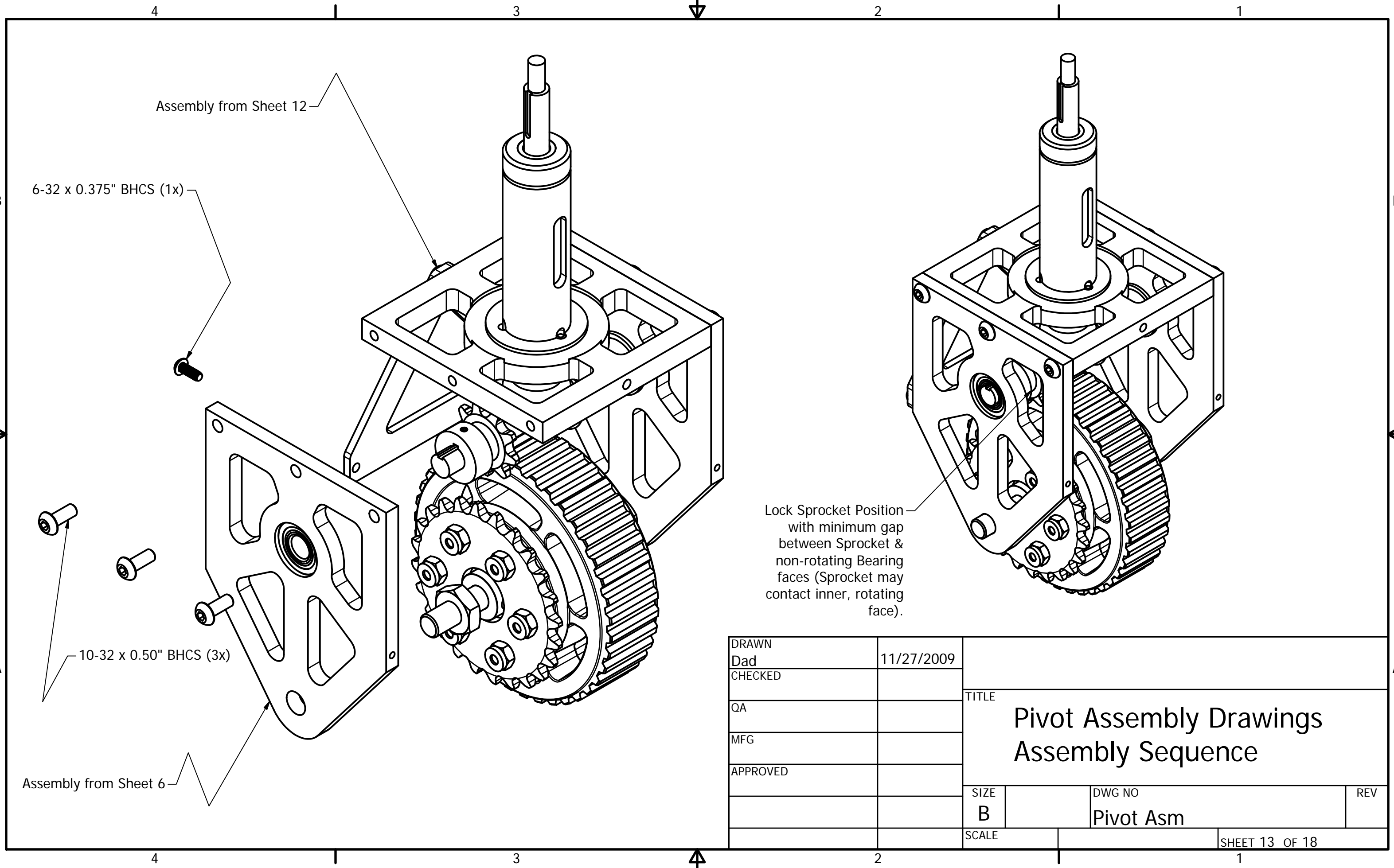
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CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
			SCALE		SHEET 12 OF 18

4

3

2

1



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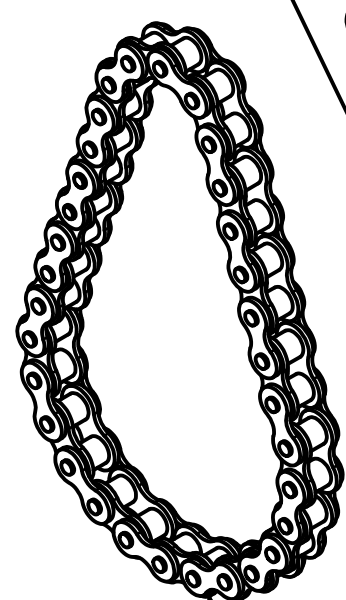
Lock Sprocket Position  
with minimum gap  
between Sprocket &  
non-rotating Bearing  
faces (Sprocket may  
contact inner, rotating  
face).

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO Pivot Asm	REV
			SCALE	SHEET 13 OF 18	

Assembly from Sheet 13

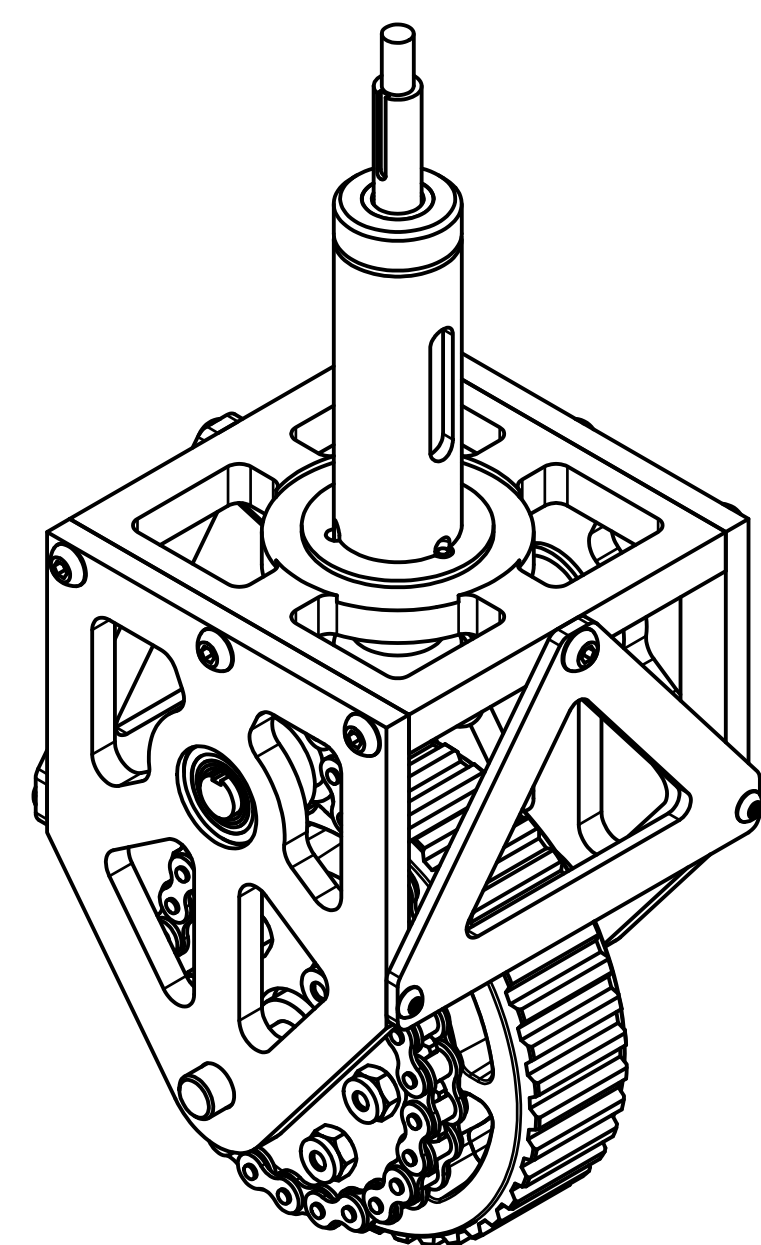
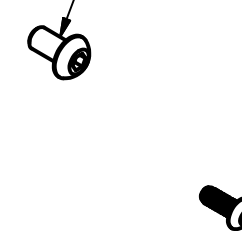
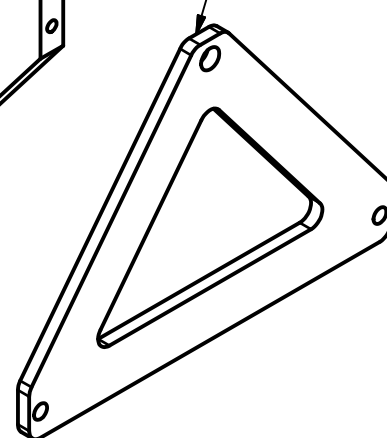
10-32 x 0.375" BHCS  
(1x) - use *Loctite*

Pivot Brace



32-link type 35 Steel Chain  
with master link  
clip facing outboard

6-32 x 0.375" BHCS  
(2x) - use *Loctite*

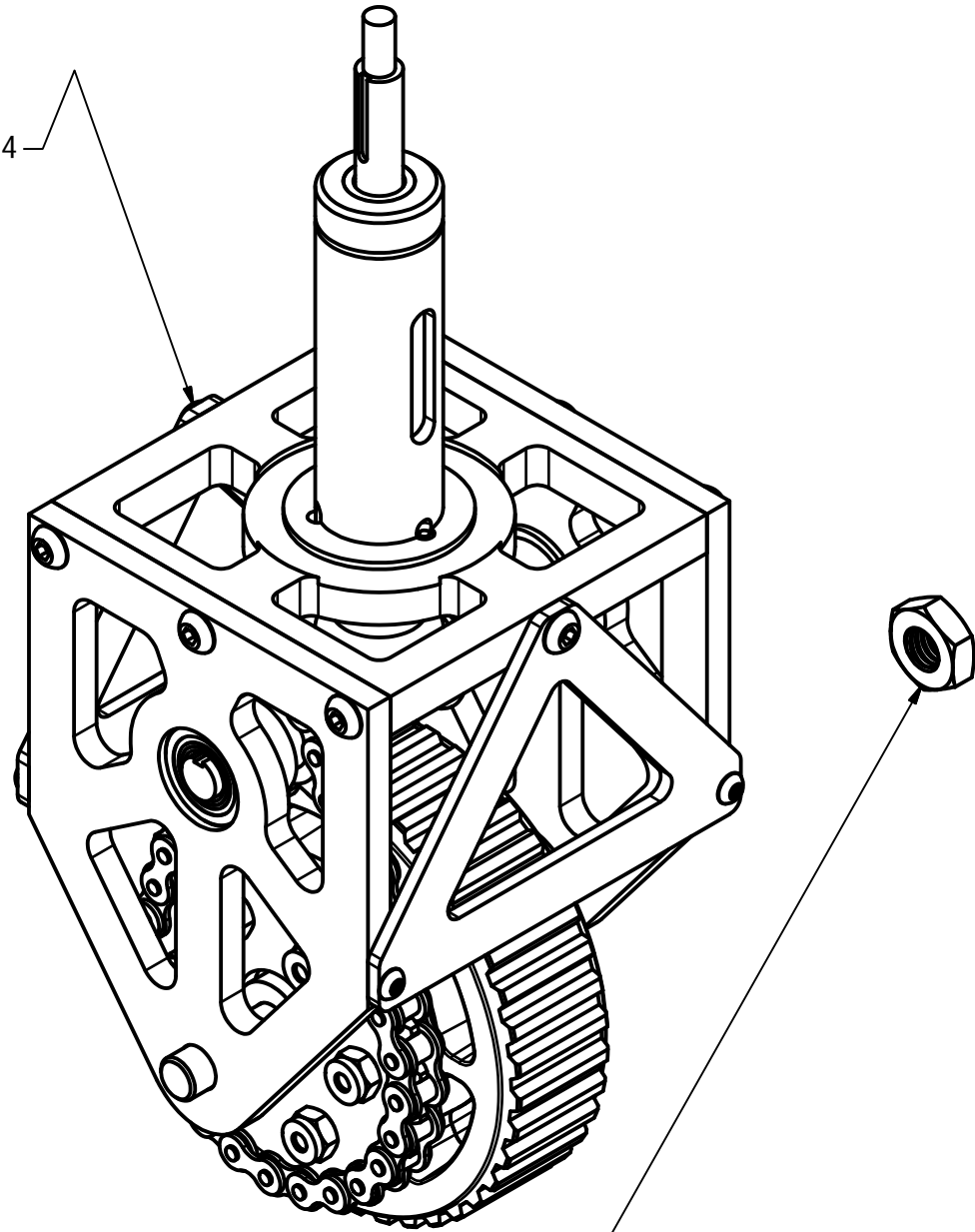


DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
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MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
			SCALE 1 : 1.5	SHEET 14 OF 18	

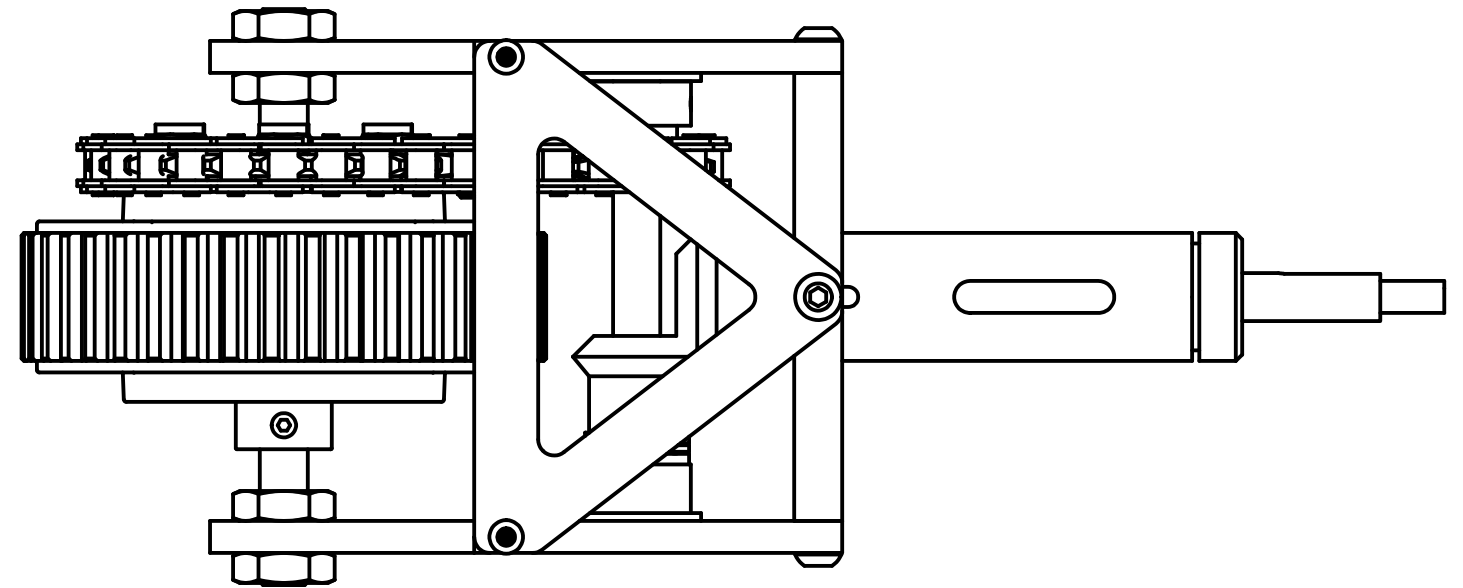
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Assembly from Sheet 14



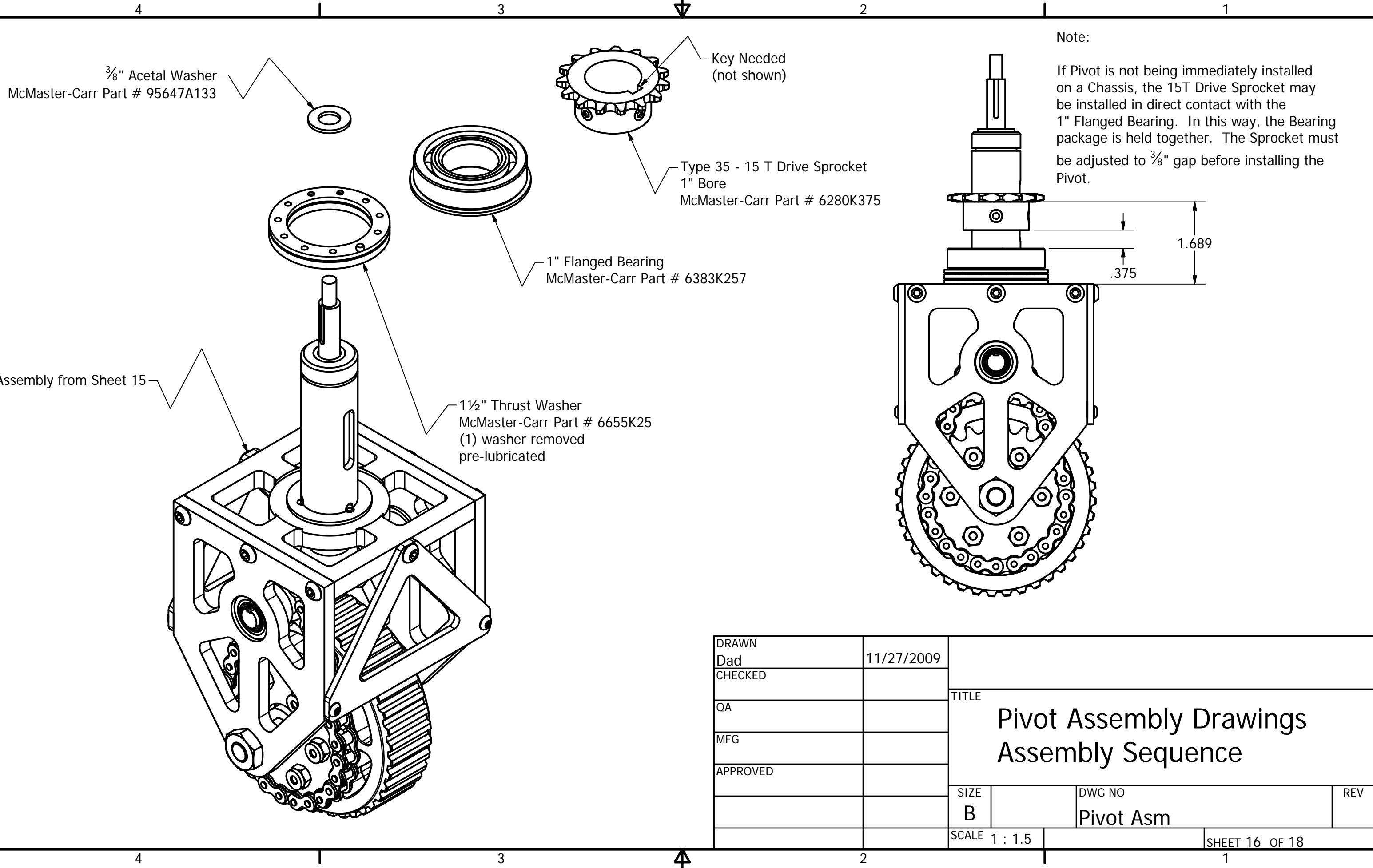
$\frac{3}{8}$ " - 16 Hex Jam Nuts (2x)  
McMaster-Carr Part # 91255A548



Tighten Axle Hex Jam Nuts to:

- 1) Center Wheel in Pivot
- 2) Lock Axle securely
- 3) Avoid distorting side plates

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
SCALE 1 : 1.5			SHEET 15 OF 18		



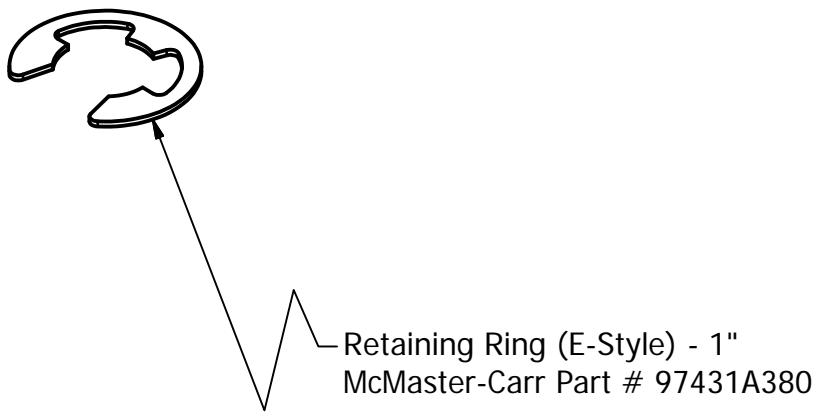
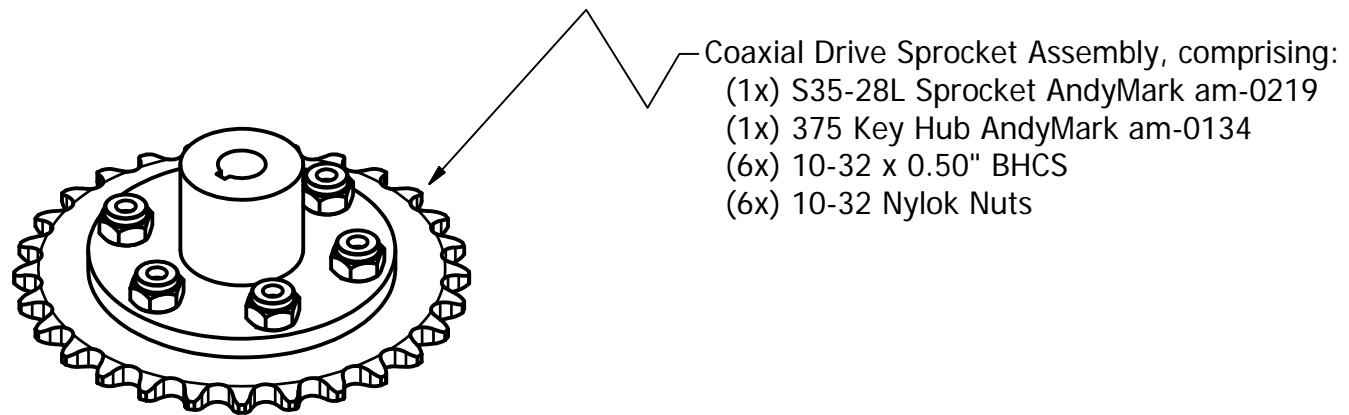
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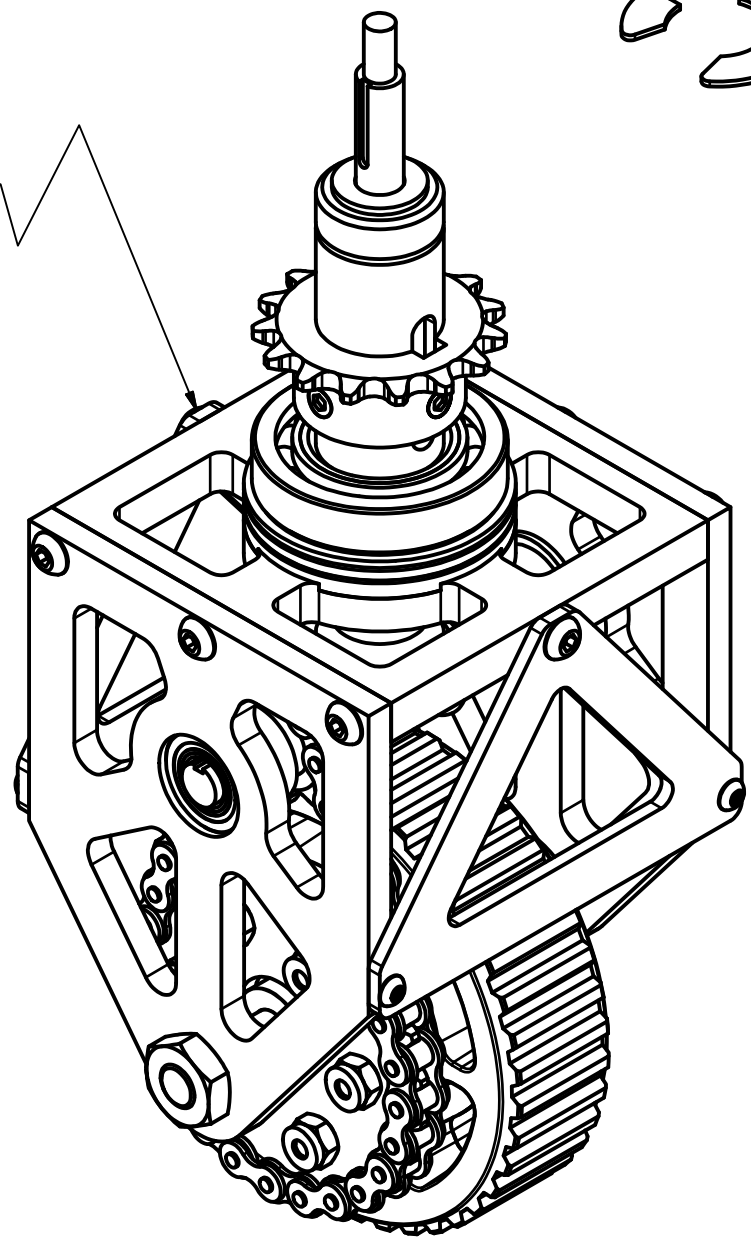
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CHECKED					
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MFG					
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SCALE 1 : 1.5			SHEET 16 OF 18		



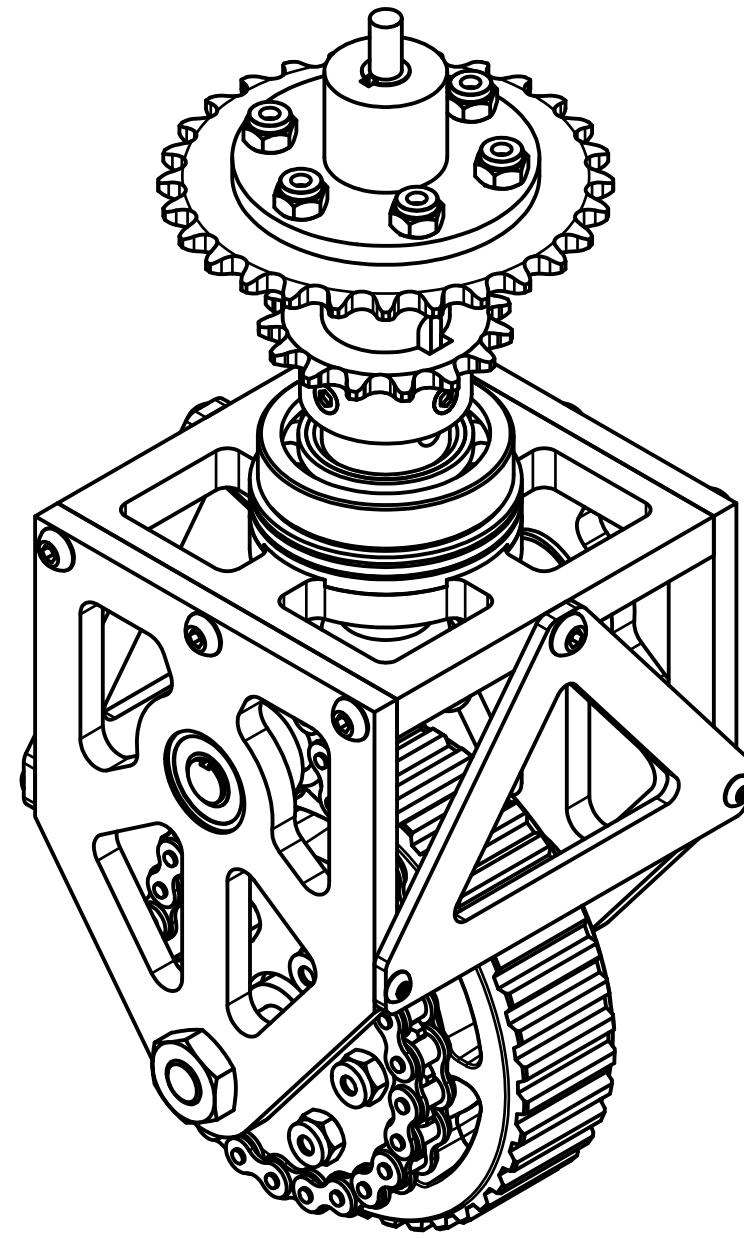
4 | 3 | 2 | 1



Assembly from Sheet 16



Retaining Ring and Coaxial Drive Sprocket must be removed to install or remove Pivot Unit to/from Chassis



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B

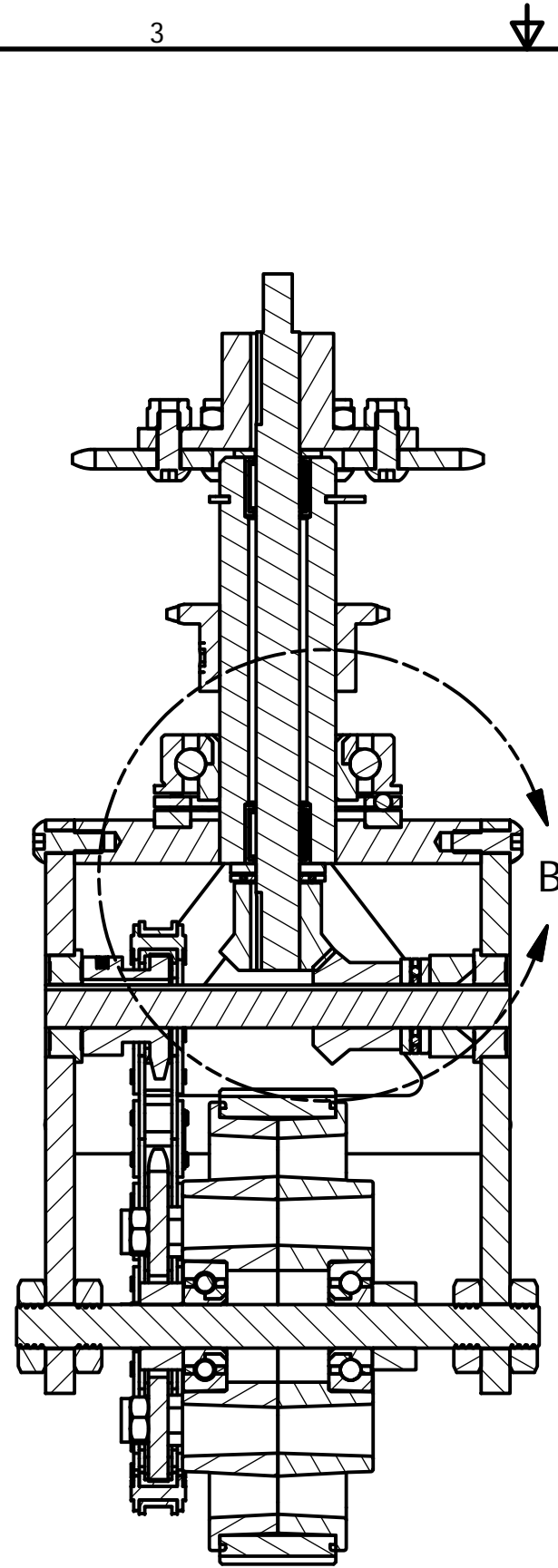
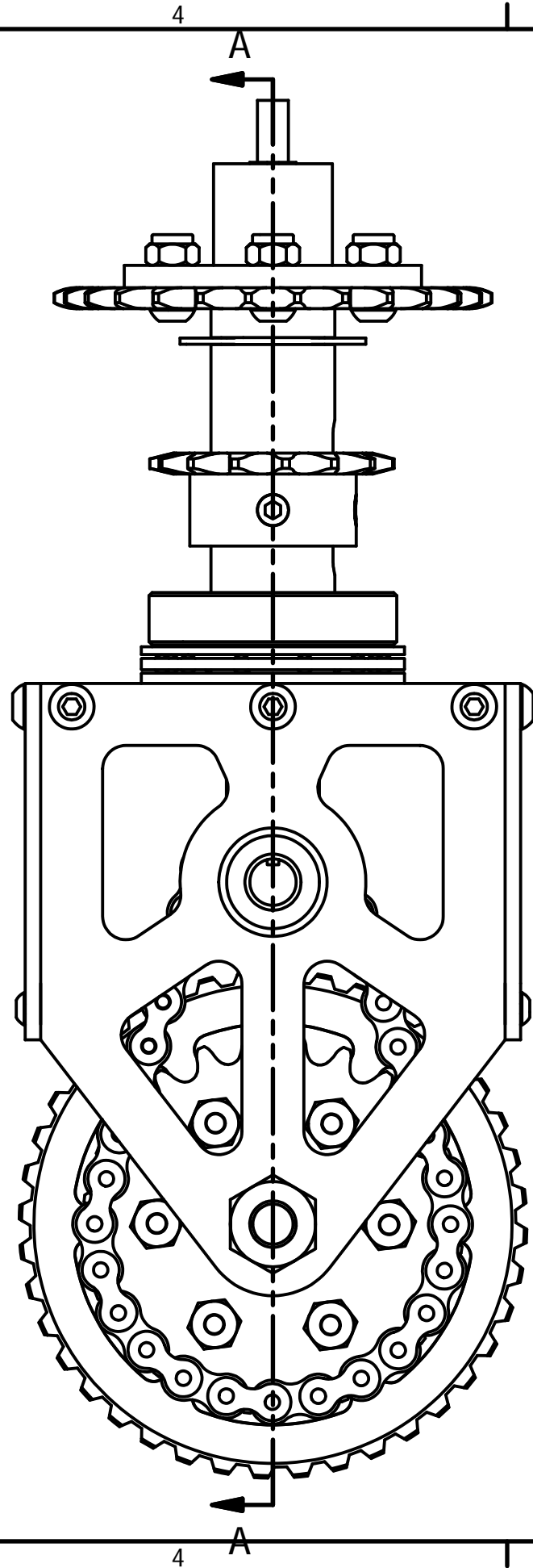
B

A

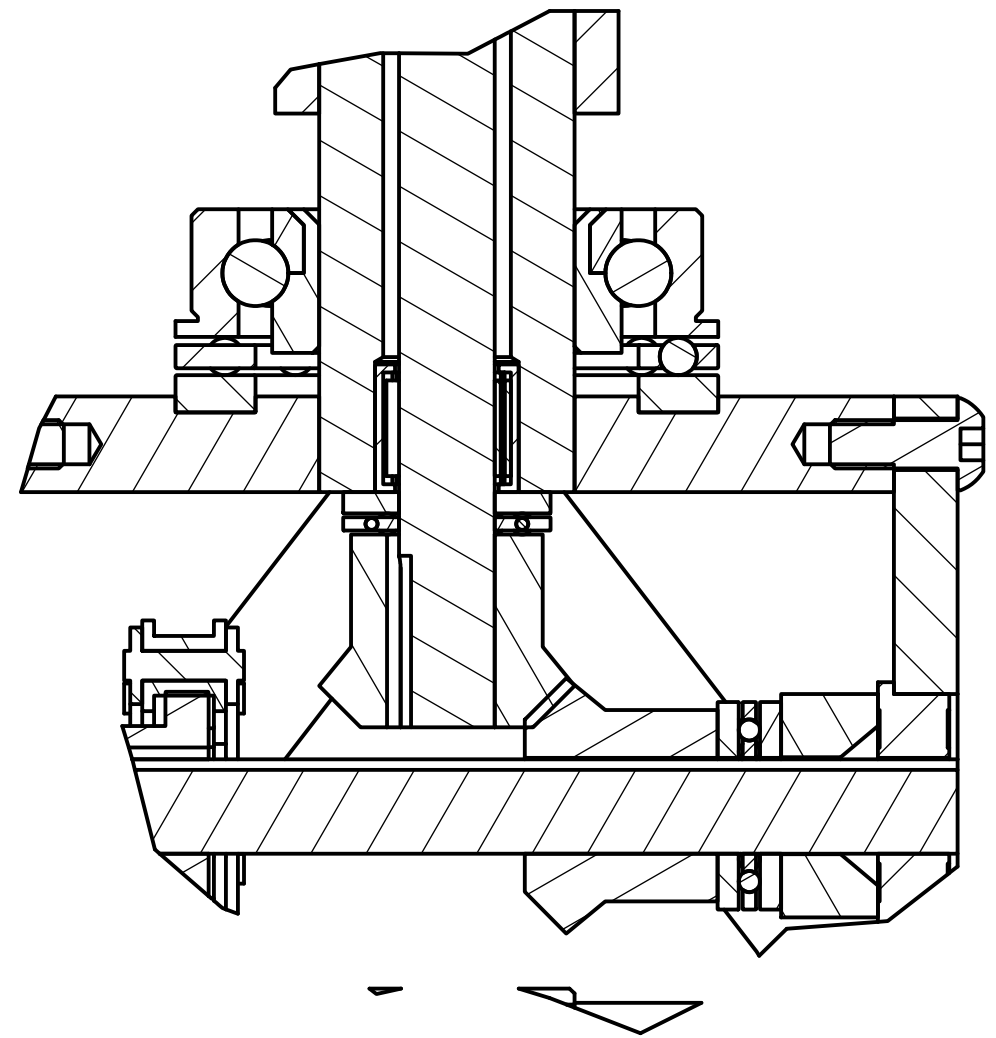
A

4 | 3 | 2 | 1

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Assembly Sequence</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
SCALE 1 : 1.5			SHEET 17 OF 18		



SECTION A-A  
SCALE 1: 1.5



DETAIL B  
SCALE 1.33 : 1

DRAWN	Dad	11/27/2009	TITLE <b>Pivot Assembly Drawings Section thru Full Assembly</b>		
CHECKED					
QA					
MFG					
APPROVED			SIZE <b>B</b>	DWG NO <b>Pivot Asm</b>	REV
			SCALE		SHEET 18 OF 18

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