

OPERATION MANUAL FOR PRECISION TEST HOIST

8015 SERIES

- MANUAL
- SEMI-AUTOMATED



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RISK ASSESSMENT FOR PRECISION TEST HOIST (8015 SERIES)

Synopsis:

Australian Standard AS4024 is presented, with all the potential hazards identified and given a risk score and assessment on their precision test hoist (8015 series). A comprehensive assessment which complies with ACMEDA Australia engaged the services of Gamon Engineering Consulting Services to coduct a risk

Below is a summary check-list for all the components which make up the hoist and a review of compliance with the relevant standard is presented. It was ascertained that the hoist complied with all the safety requirements AS4024 and thus it's safety category is Class 4.

TABLE 1

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	Comments	Complies with Standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard	Complies with standard					
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Description	Court Aprilia	Power On/Off Switch	Emergency Stop	Up & Down Buttons	Bottom Limit Switch	Pillar	Manual Check Tape Measure	Top Limit Switch	Carriage For Cross Arm	Cross Arm	Sliding Table	Foot Pedal Controls	Electrical Box	Indexing Bracket System	Control Panel Interface	Indexing Bracket Plate	Top Extension Arm	Auto-Lock Pin	Star Knob/Shaft	Optional Backboards	Roman Blind Brackets	Safety Bracket	Intermediate Bracket	Cross Arm Extensions	Electrical Wiring & Cables	Drive Shaft	Force Cooling Fan	Motor	Auto Transformer
Ifam	No	1	2	3	4	5	9	7	8	6	10	=	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28

.... Director & Principal Consultant Certified By: George Addae ...

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HOIST SAFETY PRECAUTIONS-CUSTOMER RESPONSIBILITIES



Installation and commissioning of hoist are to be performed by Acmeda trained personnel only. Contact the manufacturer for all technical supports. No mechanical or electrical work on the hoist should be undertaken except by qualified technicians.

CUSTOMERS RESPONSIBILITY:

It is the responsibility of the owner to ensure that the hoist is used only within its specifications and for its intended applications.

It is the responsibility of the owner to ensure that all operators have been thoroughly trained in the safe operation of the hoist and its components.

OPERATORS RESPONSIBILITY:

It is the responsibility of the operator to ensure that the maximum loads specified for the hoist is not exceeded (please see specifications sheet).

It is the responsibility of the operator to ensure that nothing is ever hanging loosely from the cross arm and that the work area is always kept clean and clear of obstructions.

HOIST SET UP REQUIREMENTS:

Electrical cord for hoist should be hung from above and secured clear of the hoist pillars. It should not be lying on the ground. Use of RCD is recommended for sockets connecting the hoist and power cords should be tagged and regularly inspected to prevent electric shocks.

Safety barriers need to be placed at the far ends of the cross arm to avoid collisions with operators.

Electrical Box key should be stored away from machine with management or technical staff.

Acmeda accepts no responsibility for property damage or personal injury if safety precautions and procedures are not followed.

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TECHNICAL INFORMATION

8015 SERIES PRECISION TEST HOIST



Voltage/ Amperage 240V - 50Hz / 10Amp

Safety Category (EN 954) Category 4

Australian Standards AS 4024, AS3100

EN Standards EN 292, EN1088, EN 954, EN 418, EN 894, EN 60204, EN 61800-3, EN 61800-5

Safety Features: Emergency Stop

All external wiring and switches are 24V (extra low voltage)

Override dead stop

Over load electrical trip switch (motor protected)

Overall Dimensions: 5000mm high x 4000mm wide x 1000mm base

Maximum blind width capacity: Up to 3.7 metres for roller blinds

Up to 5.0 metres for venetian blinds

Height capacity: Up to 3.8 metre drop to work table

Up to 4.8 metre drop to floor

Max Blind weight capacity: 30 Kgs (Manual model)

60 Kgs (with servo drive EMS model)

Operating Speed: 5.4 sec per metre (Manual model)

3.0 sec per metre (with servo drive EMS model)

Base Bolts: Base to Concrete - Sleeve Anchor Hex Head, 10 X 75mm, ~ 3.5kN Tension

Hoist to Base -Socket Head Cap Screw, M10 X 20, ~ 1310MPa Tensile

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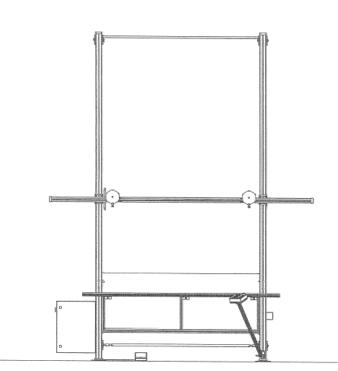


OPERATION MANUAL

FOR PRECISION TEST HOIST



- 1.1 HOIST COMPONENTS
- 2.1 BASIC OPERATION MODE
- 2.2 AUTOMATIC MODE
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- 2.4 SETTINGS MODE 1
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- A.1 GENERAL HOIST MAINTENANCE
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- D1-D26 TECHNICAL DRAWINGS
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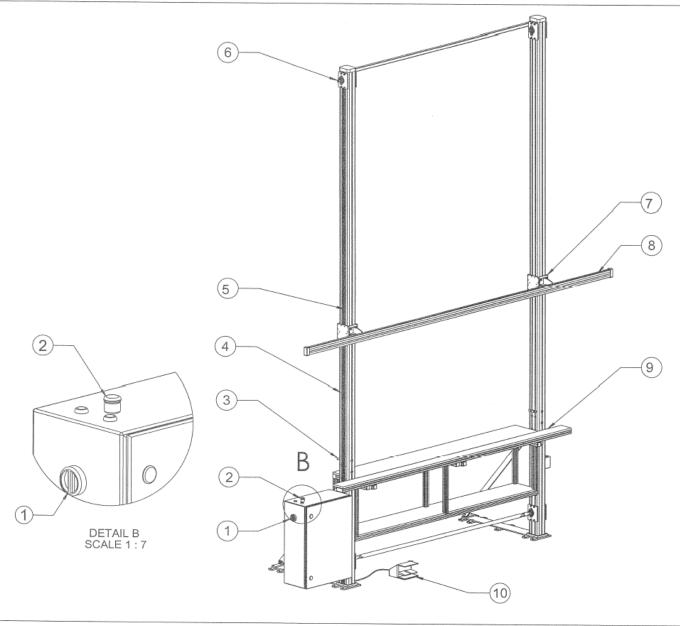




HOIST COMPONENTS

SINGLE SIDE-MANUAL

- Power On / Off Switch
- Emergency Stop / Up & Down Buttons
- Bottom Limit Switch Location
- Pillar
- Manual Check Tape Measure (Left Pillar)
- Top Limit Switch Location
- Carriage for Cross Arm
- B. Cross Arm
- Sliding Table
- 10. Foot Pedal Controls







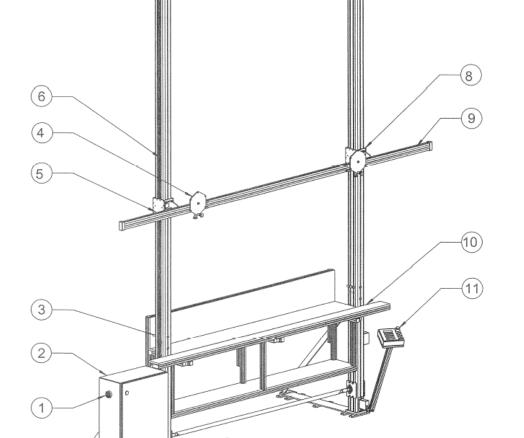
HOIST COMPONENTS

SINGLE SIDE WITH EMS (ELECTRONIC MEASURING SYSTEM)

- Power On / Off Switch
- 2. Electrical Box
- Bottom Limit Switch Location
- Indexing Bracket System
- 5. Pillar
- Manual Check Tape Measure (Left Pillar)
- 7. Top Limit Switch Location
- Carriage for Cross Arm
- 9. Cross Arm
- 10. Sliding Table
- 11. Control Panel Interface
- 12. Foot Pedal Controls

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1.1







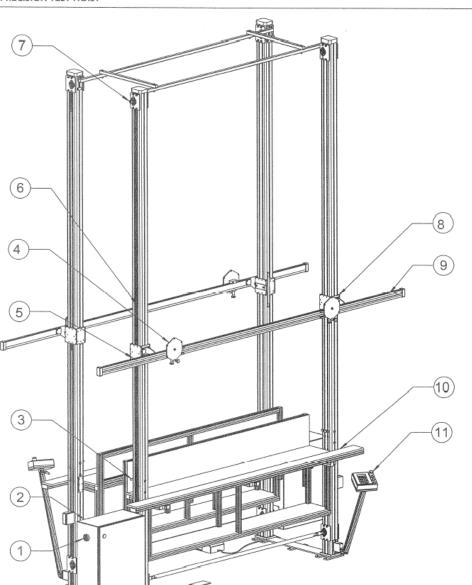
HOIST COMPONENTS

DOUBLE SIDE HOIST WITH EMS (ELECTRONIC MEASURING SYSTEM)

- 1. Power On / Off Switch
- 2. Electrical Box
- Bottom Limit Switch Location
- Indexing Bracket System
- 5. Pillar
- Manual Check Tape Measure (Left Pillar)
- Top Limit Switch Location
- Carriage for Cross Arm
- Cross Arm
- 10. Sliding Table
- 11. Control Panel Interface
- 12. Foot Pedal Controls

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1.1







CONTROL PANEL INTERFACE

BASIC HOIST OPERATION

Each time the Hoist is switched on a few simple steps should be followed to prepare it for operation.

Step 1: Turn the power to the hoist on and wait a few seconds for the display prompts.

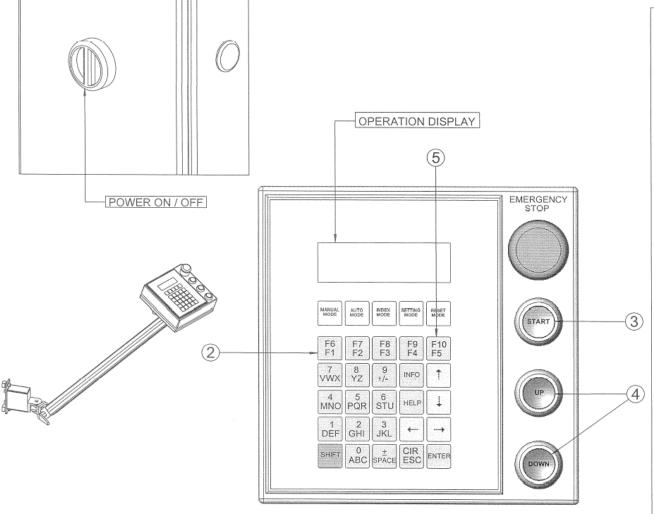
Step 2: The display should now prompt you to press F1 to continue. Press F1.

The display should now indicate that the Hoist is in manual use mode. At this point the cross arm needs to be calibrated for accurate measuring.

Step 3: Press Start to reset (calibrate) the cross arm. The cross arm should now be resetting itself to the zero position and then move back up to working height.

Step 4: The Hoist is now ready to use in manual mode. The cross arm can be raised and lowered using the black Control Panel buttons and by using the foot pedals.

Please note: If for any reason you fail to reset (calibrate) the cross arm (Steps 3 and 4) the electronic measuring system will not be accurate and you will find that the cross arm stops abruptly at the top or bottom sensor. If this happens you must reset the Hoist by pressing F5 [5] and following Steps 3 and 4.





PROGRAMMING CONTROL

AUTOMATIC MODE

Programming the Cross Arm for Specific Heights:

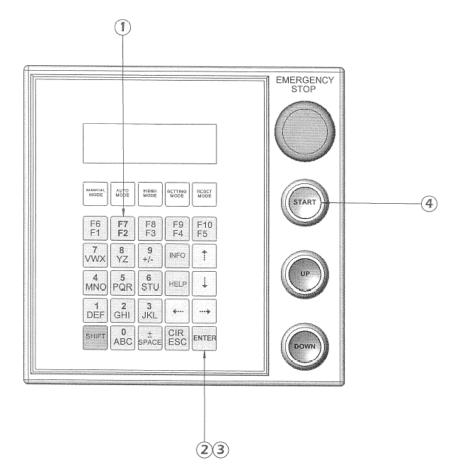
The cross arm can be accurately programmed for specific testing heights down to the individual millimeter.

- Press F2 to bring up the height programming menu.
- Press Enter (The cursor should now be flashing in "New Pos").
- Now type in the desired height position in millimeters and press Enter.
- Press the Start button and the Cross Arm should rise to the programmed position.
- To program in a different height simply press Enter again to get the cursor flashing in "New Pos".
- 6. Type in the new height and press Enter and then Start (just as in Steps 3 and 4).

Press F1 to return to Manual Mode at any time.









PROGRAMMING CONTROL



Programming the Cross Arm for Height Indexing:

The cross arm can be programmed to index at height intervals accurately down to the individual millimeter.

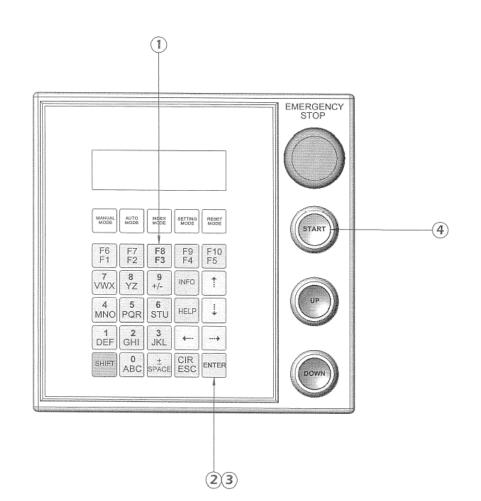
- Press F3 to bring up the indexing programming menu.
- 2. Press Enter (The cursor should now be flashing in "Index").
- Now type in the desired index interval in millimeters and press Enter.
- Press the Start button and the Cross Arm should rise the interval distance from the current position.
- From now, every time you press the Start button the Cross Arm will move up the programmed index distance.

Please note that the indexing starts from wherever the Cross Arm height is when the intervals are programmed, not from the zero position.

Press F1 to return to Manual Mode at any time.

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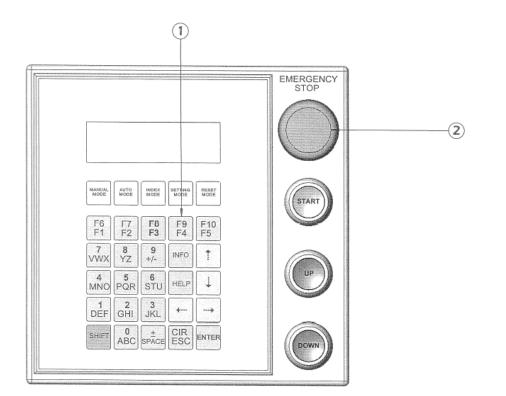








PROGRAMMING CONTROL



SETTINGS MODE

Adjusting the Settings of the Cross Arm:

Generally, the factory settings of the Hoist should not be changed.

If for any reason they need to be altered for specific testing purposes then refer to the following guide.

Press F4 (1) to bring up Settings Menu

Factory settings and descriptions are as follows:

MaSp 100 %: Manual Speed

AuSp 100%: Auto Speed

InSp 100%: Indexing Speed

Oset -275mm: Offset from Tableadjusted on site for customer

PLim 3200mm: Upper Pillar Limit

for cross arm height

To change any of the factory settings the Emergency Stop button (2) must be pressed.

(Continued on next page)

FACTORY SETTINGS

MaSp 100% AuSp 100% InSp 100% Oset -275mm PLim 3200mm (4)

MODE

F8 F3

6 STU

F7 F2

8 9 YZ +/-

2 3 GHI JKL

ABC

F9 F10 F4 F5

INFO

HELP

ENTER

2(3)

± CIR SPACE ESC

F6 F1

VWX

DEF

4 MNO PQR EMERGENCY STOP

(5)



OPERATION

PROGRAMMING CONTROL

SETTINGS MODE

Adjusting the Settings of the Cross Arm:

(Continued from previous page)

After the Emergency Stop button is pressed the Settings can be adjusted.

- Use the side arrow keys to move cursor to the setting that needs to be changed.
- 2. Press Enter to get the cursor flashing. You can now type in the desired changes.
- 3. After the changes have been made, press Enter again to stop the cursor flashing.
- 4. Press F5 to save changes.
- 5. Pull up Emergency Stop and press desired F Key to return to testing mode.

Press F1 to return to Manual Mode at any time.

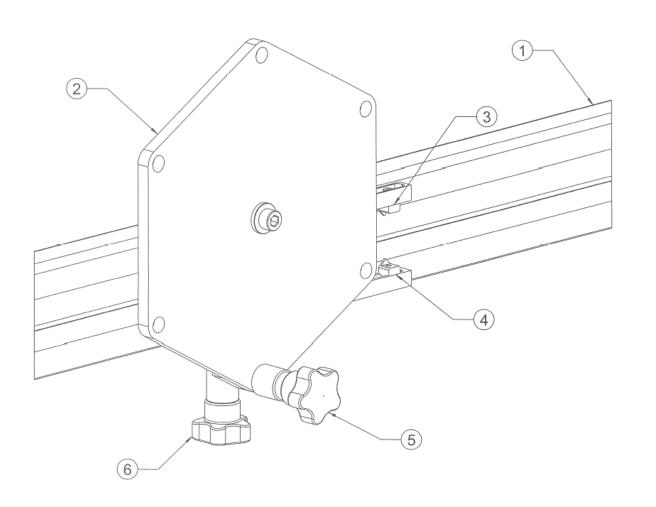
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COMPONENTS

INDEXING BRACKET SYSTEM

- 1. Hoist Cross Arm
- 2. Indexing Bracket Plate
- Top Extension Arm (For measuring from left side).
- Bottom Extension Arm (For measuring from right side)
- Auto-Lock Pin
- 6. Star Knob / Shaft for Horizontal Adjustments



Indexing Bracket System shown here without blind brackets



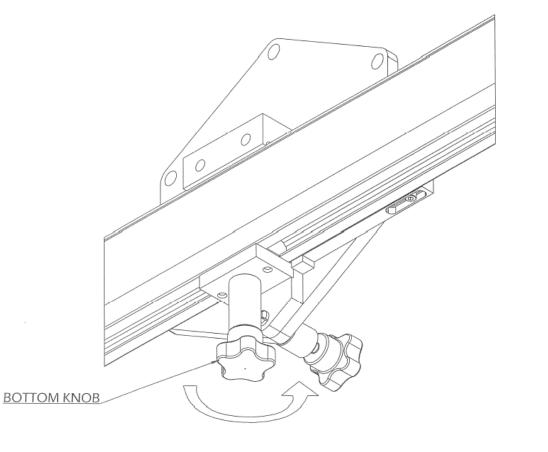




INDEXING BRACKET SYSTEM

Moving the Indexing Plates

- First, turn the bottom knob (star knob/ shaft) until loose (normally only 1-2 turns).
- Now the entire Indexing Plate Assembly can be moved manually to the desired location by simply sliding it on the Cross Arm.
- Once in position the bottom knob should be tightened firmly to ensure there is no movement during testing.





OPERATION | CROSS ARM MEASURING SYSTEM

Using the Cross Arm Measuring System

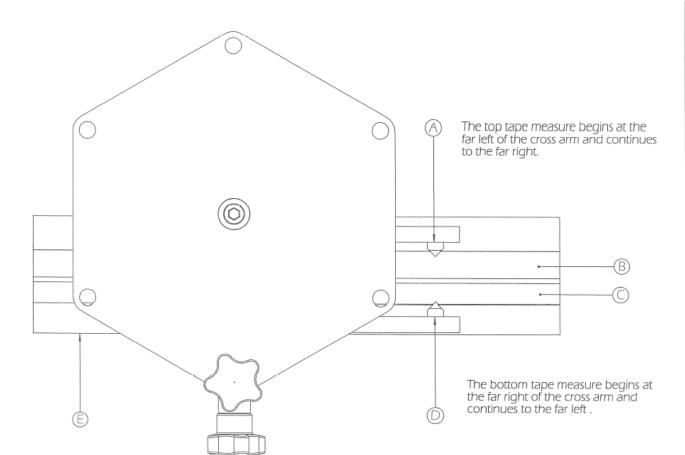
The cross arm measuring system allows you to accurately locate the Indexing Plates on the Cross Arm for the correct bracket distance.

COMPONENTS:

- A. Indicator for top measuring tape.
- B. Top measuring tape with zero origin at far left of cross arm and extending right.
- C. Bottom measuring tape with zero origin at the far right of cross arm and extending left.
- D. Indicator for bottom measuring tape.
- E. Cross Arm

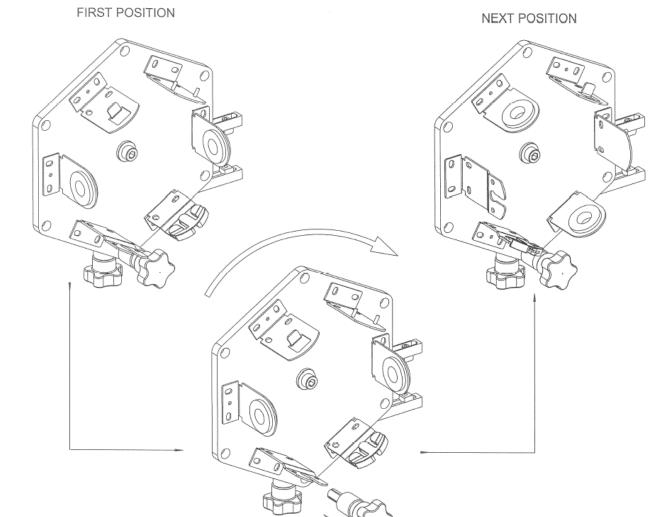
Max Blind Width - Up to 3.7 metres (for roller blinds)

Max Blind Width - Up to 5.0 metres (for venetian blinds)





INDEXING BRACKET SYSTEM



Turning the Indexing Plate

- First, turn the Auto Locking Pin until loose (normally only one turn).
- Now the Autolocking pin can be removed and the Indexing Plate turned to the desired position.
- 3. The Auto Locking Pin can now be returned to position and tightened (just until snug).





SLIDING TABLE



The level of the blinds can be accurately checked by pulling the sliding table to the out position.

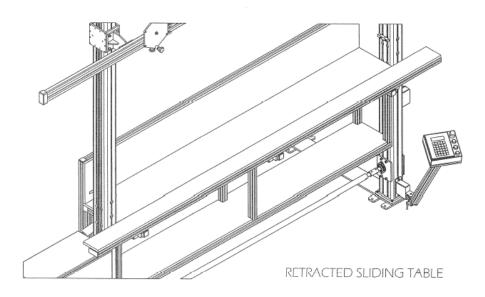
The blinds can drop directly to the ground if the table is retracted.

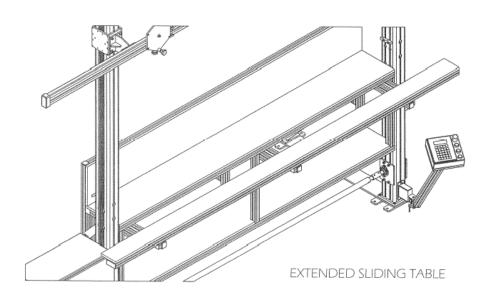
The table is parallel to the cross arm to within 0.5 mm over the 3 meter length of the table.

Height Capacity

Up to 3.8 metre drop to table

Up to 4.8 metre drop to floor









BACKBOARD



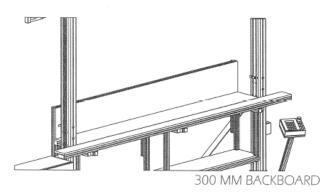
There are three sizes of optional backboards to suit different testing needs.

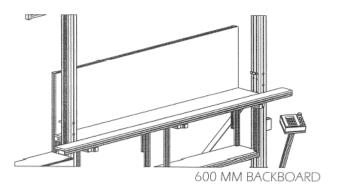
300 x 2400 Backboard

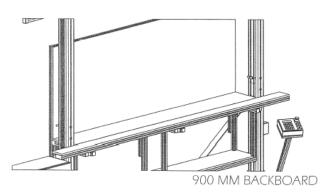
600 x 2400 Backboard

900 x 2400 Backboard

Customized Backboards are available up to 2 metres height.

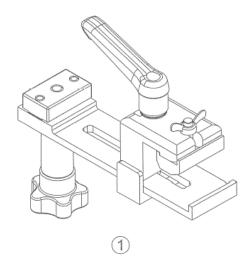


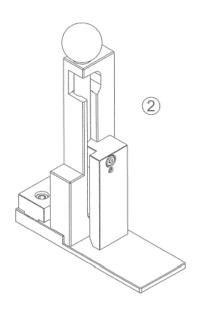


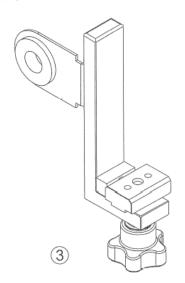


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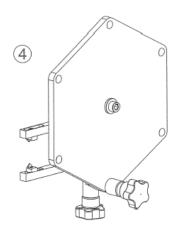
ACCESORY BRACKETS







SHOWN WITH SAMPLE BRACKET

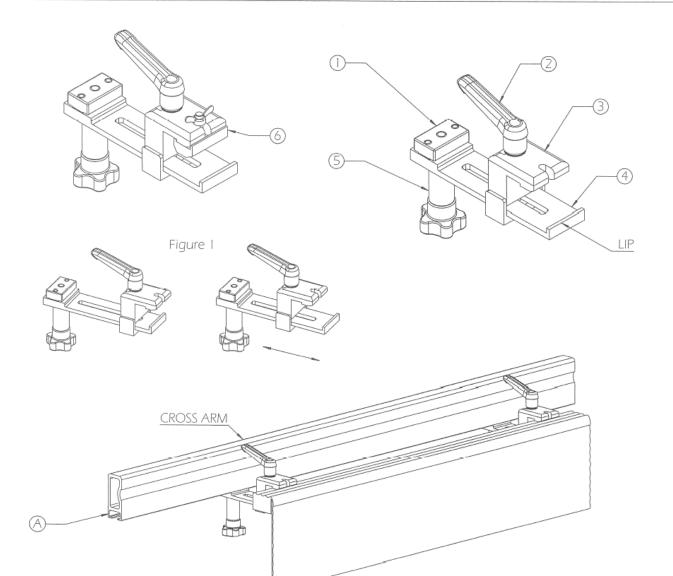


COMPONENTS

ACCESORIES

- 1. ROMAN BLIND BRACKETS: FOR USE WITH ROMAN BLIND AND WOVEN TIMBER BLINDS.
- SAFETY BRACKET: FOR VENETIAN BLINDS
- 3. INTERMEDIATE BRACKET: FOR ATTACHING EXTRA BRACKETS FOR SUPPORT.
- 4. INDEXING BRACKET: LEFT AND RIGHT SIDE INDEXING BRACKETS FOR ROLLER BLIND TESTING.





COMPONENTS

ROMAN BLIND BRACKET

ROMAN BLIND BRACKETS

COMPONENTS

- CROSS ARM NUT/SLIDER
- 2. CLAMPING HANDLE
- 3. CLAMP
- 4. SUPPORT ARM
- 5. CROSS ARM LOCKING KNOB
- CLAMP EXTENSION (CAN BE FITTED FOR SMALLER BLINDS)

ATTACHING THE BRACKETS TO THE CROSS ARM

First remove the Cross Arm end cap and slide the cross arm nut (1) into the bottom groove (A) of the cross arm, making sure that the cross arm locking knob (5) is loose enough to slide easily. Insert as many Brackets as needed.

USING THE BRACKETS

The Clamp (3) can be adjusted to suit blinds of various sizes (Fig. 1).

Rest the blinds on the Support Arm (4) and make sure that it is pressed firmly between the Clamp and the Support Arm lip.

Now, simply tighten the Clamping Handle and the blinds are ready to test.

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INTERMEDIATE BRACKET

INTERMEDIATE BRACKETS

COMPONENTS

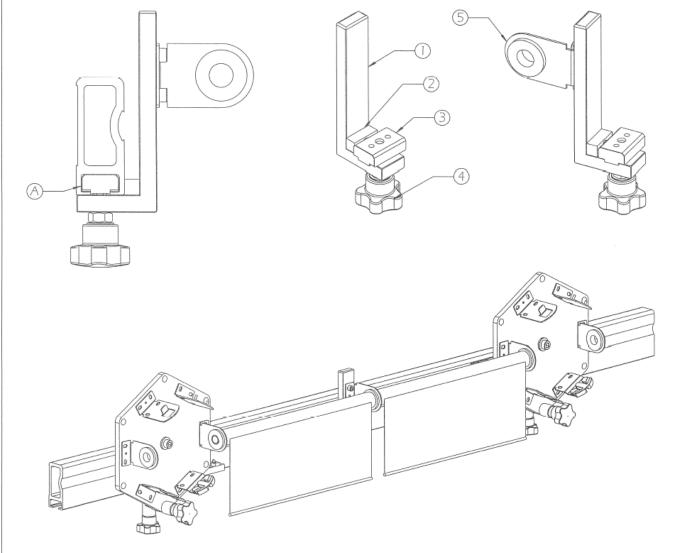
- BRACKET ARM
- NYLON SPACER
- 3. INTERNAL CROSS ARM NUT
- CROSS ARM LOCKING KNOB
- 5. BLIND BRACKET (CAN BE ANY TYPE OF MOUNTABLE BRACKET)

ATTACHING THE BRACKET TO THE CROSS ARM

First remove the Cross Arm end cap and slide the Internal Cross Arm Nut (3) into the bottom groove (A) of the cross arm, making sure that the cross arm locking knob (4) is loose enough to slide easily. Insert as many Brackets as needed.

USING THE BRACKETS

Slide the brackets into the desired locations in sequence and simply tighten the Clamping Handle as you go. The blinds are ready to test...







SAFETY BRACKET

COMPONENTS

- 1. Handle
- 2. Clamp Housing
- 3. Plastic Holding Finger
- 4. Headrail Support
- Nylon Slide

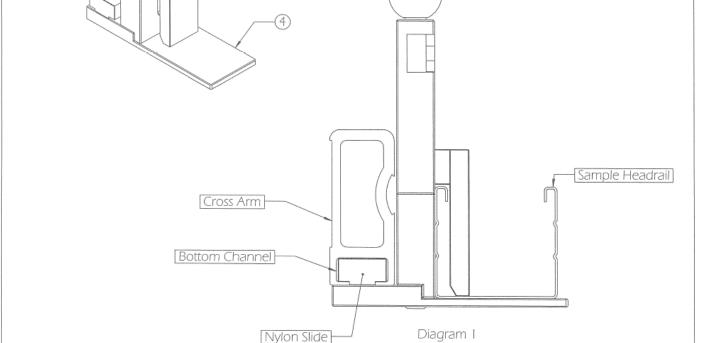
ATTACHING THE SAFETY BRACKET TO THE CROSS ARM

First remove the Cross Arm end cap and then put the Nylon Slide (5) of the Safety Bracket into the bottom channel of the Cross Arm (see Diagram 1).

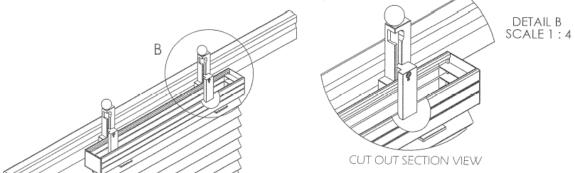
Simply slide as many Brackets as needed into desired positions.

(Continued on next page)

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SAFETY BRACKET FOR VENETIAN BLINDS

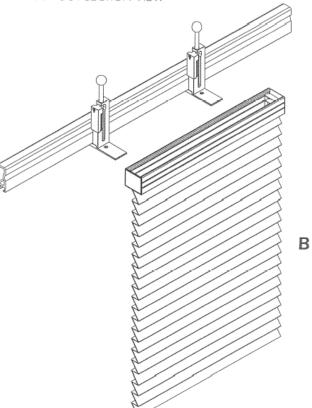




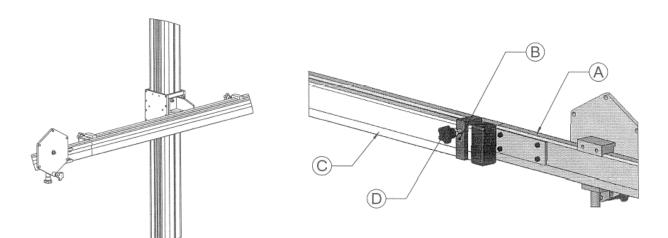
SAFETY BRACKET

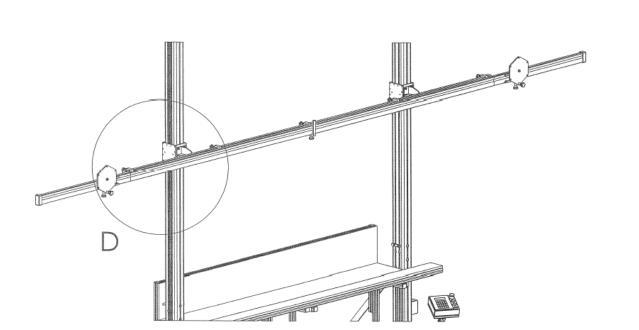
Using the Safety Brackets for Venetian Blinds

- 1. When the Safety Brackets are in place make sure they are in the opened position.
- Now the Headrail of the blinds to be tested can be rested on the Safety Bracket Headrail Support
- The brackets can now be closed and the blinds are ready to be tested.









CROSS ARM EXTENSION

CROSS ARM EXTENSIONS (OPTIONAL)

- 5 METRE-Max blind width capacity: Up to 4.7 metres
- 6 METRE-Max blind width capacity: Up to 5.7 metres

The cross arm extensions allow the hoist to accept larger blind widths

The cross arm extension is designed to attach directely on to the standard hoist cross arm. No tools are required and it can be completed in a matter of minutes.

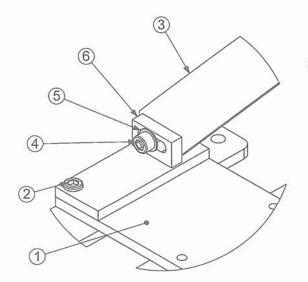
The cross arm extension (A) is fitted with Saddle brackets (B) that fit directely over the top of the standard cross arm (C) and can be secured in place with the knobs at the back (D).



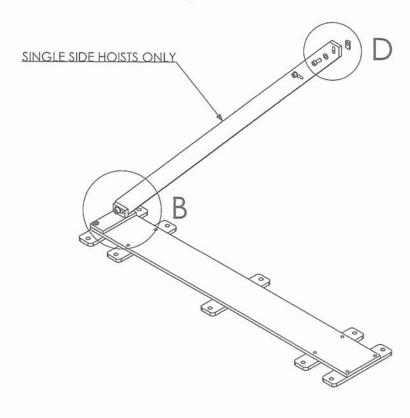
HOIST GENERAL MAINTENANCE GUIDE	DAILY	WEEKLY	MONTHLY	YEARLY	18 MONTH INTERVAL	AS NEEDED
CLEAN THE PILLAR CHANNELS (GROOVES) OF DUST AND DEBRIS WITH SOFT CLOTH		1				
CLEAN WORK AREA AND FLOOR AROUND HOIST AND INSURE THERE ARE NO LOOSE	1					
PARTS HANGING FROM THE CROSS ARM OR LAYING ANYWHERE EXCEPT ON THE TABLE.						
CHECK THE CROSS ARM LEVEL FOR ACCURACY (PARALLELISM) WITH THE WORK TABLE.			1			
LUBRICATE THE TOP AND BOTTOM SPROCKETS WITH SPRAY LUBRICANT (CRC, WD-40)						V
ACMEDA ENGINEERING - GENERAL MAINTENANCE AND CALIBRATION CHECK PLEASE RING ENGINEERING DEPT. DIRECT TO MAKE BOOKING - 03 9355 0171					1	

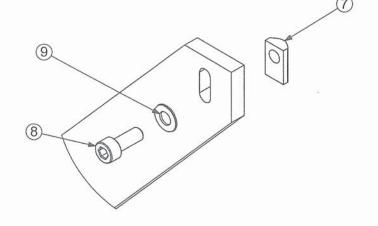


TROUBLESHOOTING GUIDE FOR PRECISION TEST HOIST						
PROBLEM	POSSIBLE SOLUTIONS					
Cross Arm does not move up and/or down .	►Emergency stop may be pressed. Pull up Emergency Stop to reactivate.					
	► Cross Arm may need to be reset to zero. Press "F5" and "Start" to recalibrate.					
	►Wrong mode menu may be activated. The arm will not work manually if F2 or F3 mode is activated.					
	► Foot pedals could be jammed. Check to make sure there is no debris lodged in the pedals.					
Hoist begins to squeak during operation	►Top and bottom Sprockets may need to be lubricated with a wet spray lubricant (CRC, WD-40)					



DETAIL B SCALE 1:3





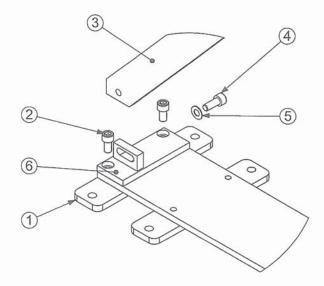
DETAIL D SCALE 1:2

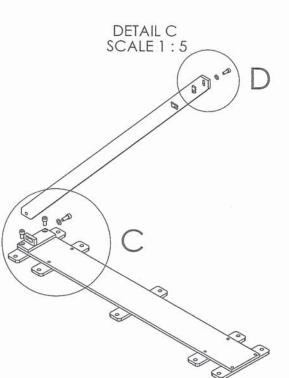
LEFT SIDE

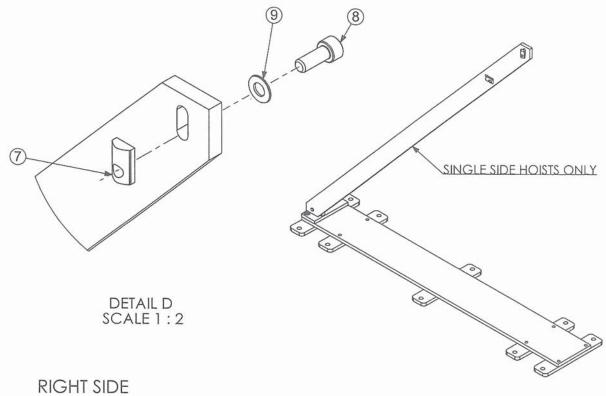
ITEM NO.	PART NUMBER	DESCRIPTION	Left/QTY.
1	TM10-8015-023100	BASE MOUNTING FRAME	1
2	TM92-SHCS-M10020	M10 X 20 SHCS	2
3	TM91-0001-005131	BASE SUPPORT ARM	1
4	TM92-SHCS-M10025	M10 X 25 SHCS	1
5	TM92-FTWS-000M10	M10 FLAT WASHER	1
6	TM10-8015-005013L	SUPPORT BRACKET-LEFT SIDE	1
7	TM93-0000-002618	T-SLOT NUT: M8	2
8	TM92-SHCS-0M8020	M8 X 20 SHCS	2
9	TM92-FTWS-0000M8	M8 FLAT WASHER	2



DRAWN BY: JO	SEPH TUCKER	TITLE: LEFT PILLAR BASE FRAM	AE ASSEMBLY	14 15-71 - 15 2-
FINISH:			SCALE:	TOLERANCE:
MATERIAL:			DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05
PART NUMBER: TM10-8015-005100L-1		-005100L-1	DRAWING 1 OF 1	X.XXX ±0.005
C COPYRIGHT	1 2005	ALL DIMENSIONS IN ANILIMETERS	12/12/2005	program 1



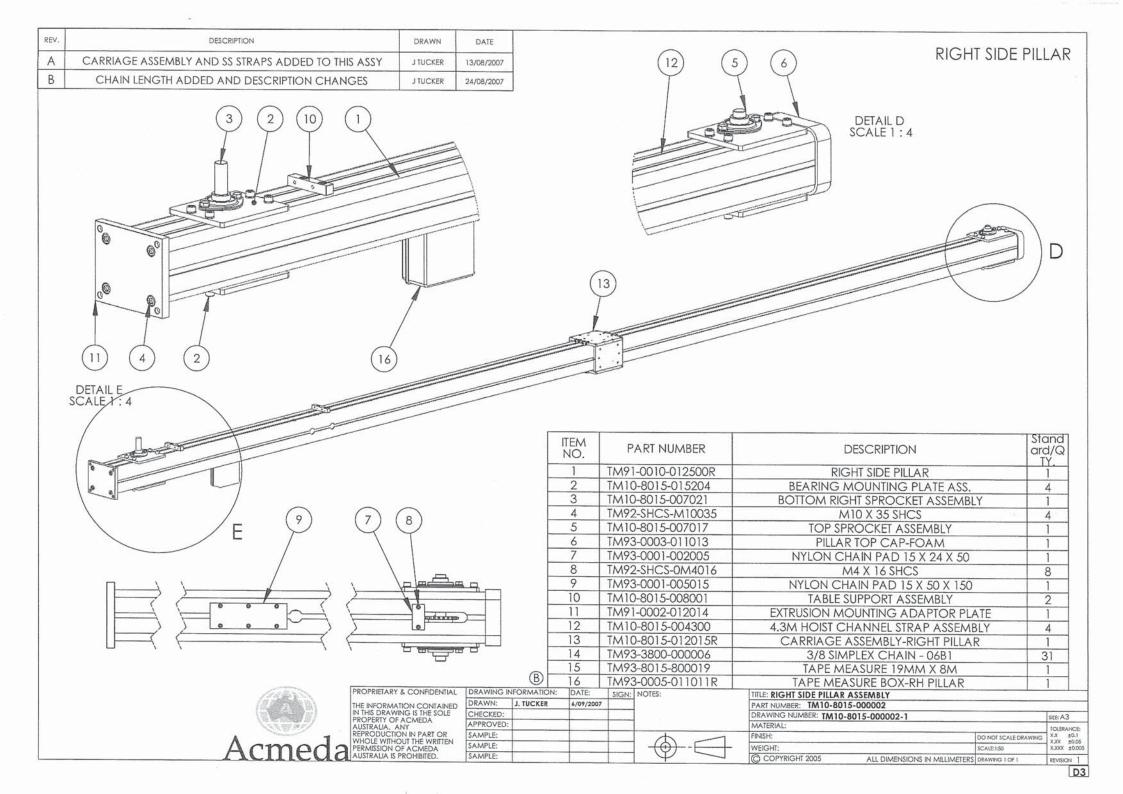


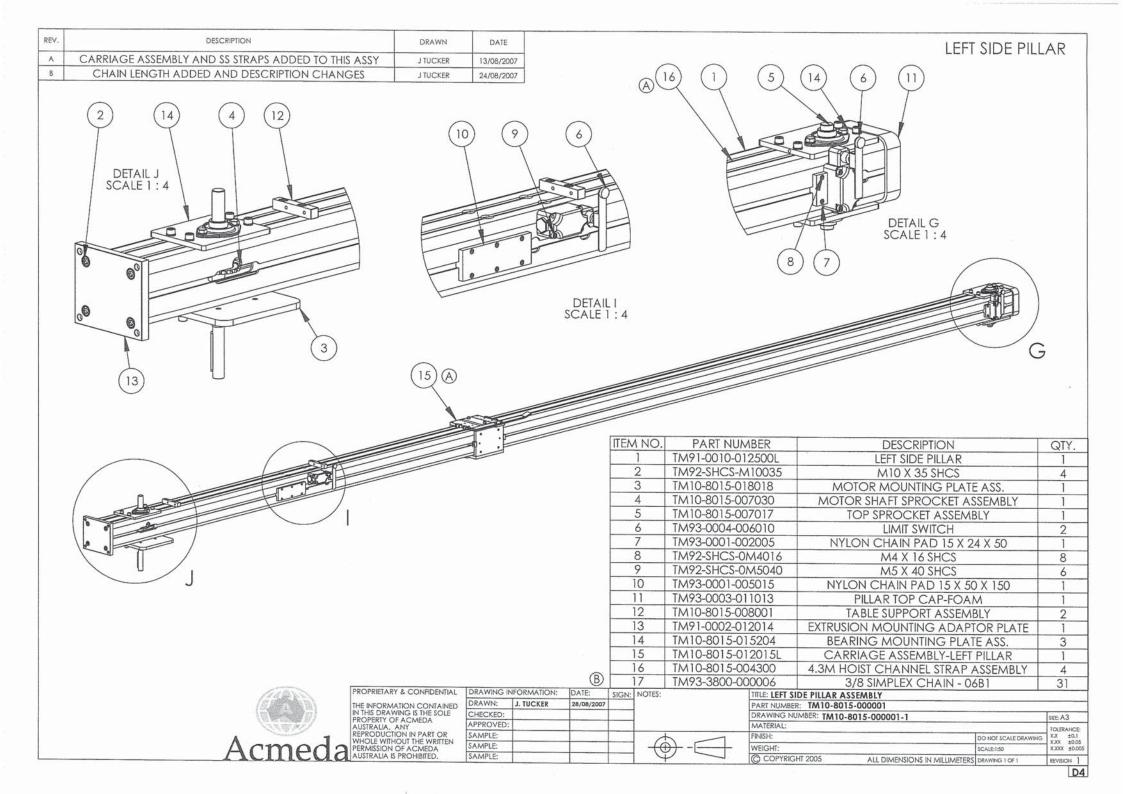


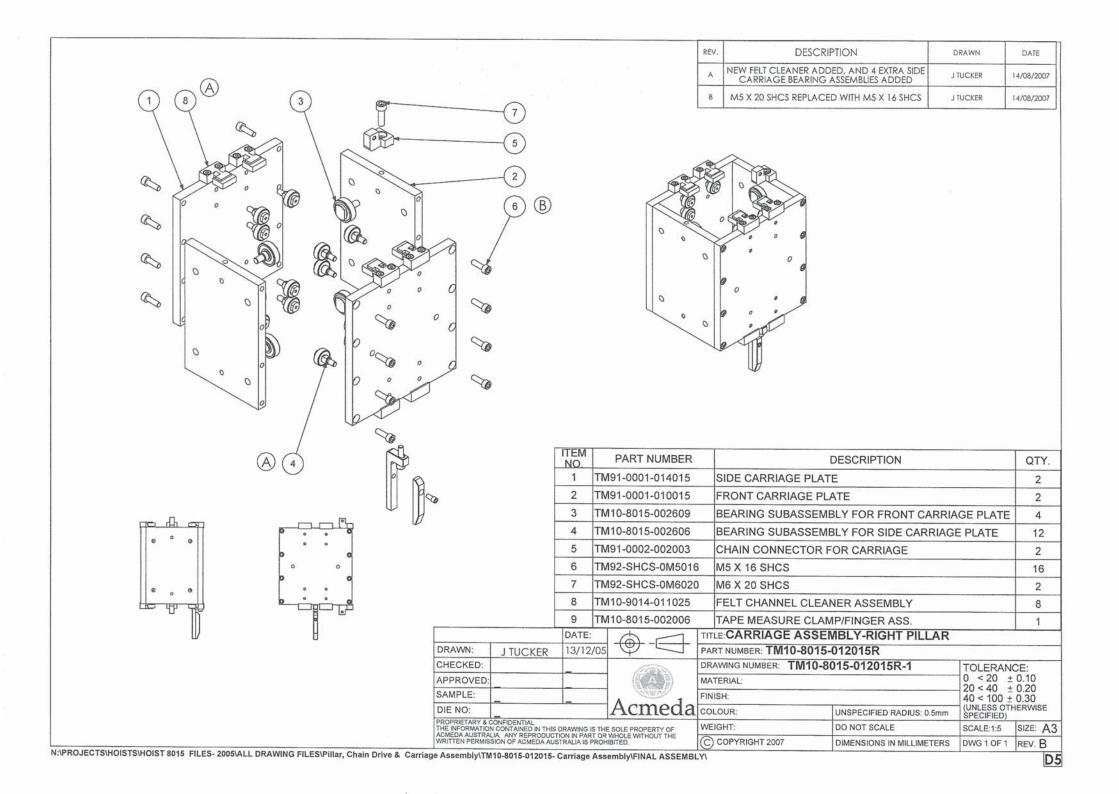
ITEM NO.	PART NUMBER	DESCRIPTION	Right/QTY.
1	TM10-8015-023100	BASE MOUNTING FRAME	1
2	TM92-SHCS-M10020	M10 X 20 SHCS	2
3	TM91-0001-005131	BASE SUPPORT ARM	1
4	TM92-SHCS-M10025	M10 X 25 SHCS	1
5	TM92-FTWS-000M10	M10 FLAT WASHER	1
6	TM10-8015-005013R	SUPPORT BRACKET-RIGHT SIDE	1
7	TM93-0000-002618	T-SLOT NUT: M8	2
8	TM92-SHCS-0M8020	M8 X 20 SHCS	2
9	TM92-FTWS-0000M8	M8 FLAT WASHER	2

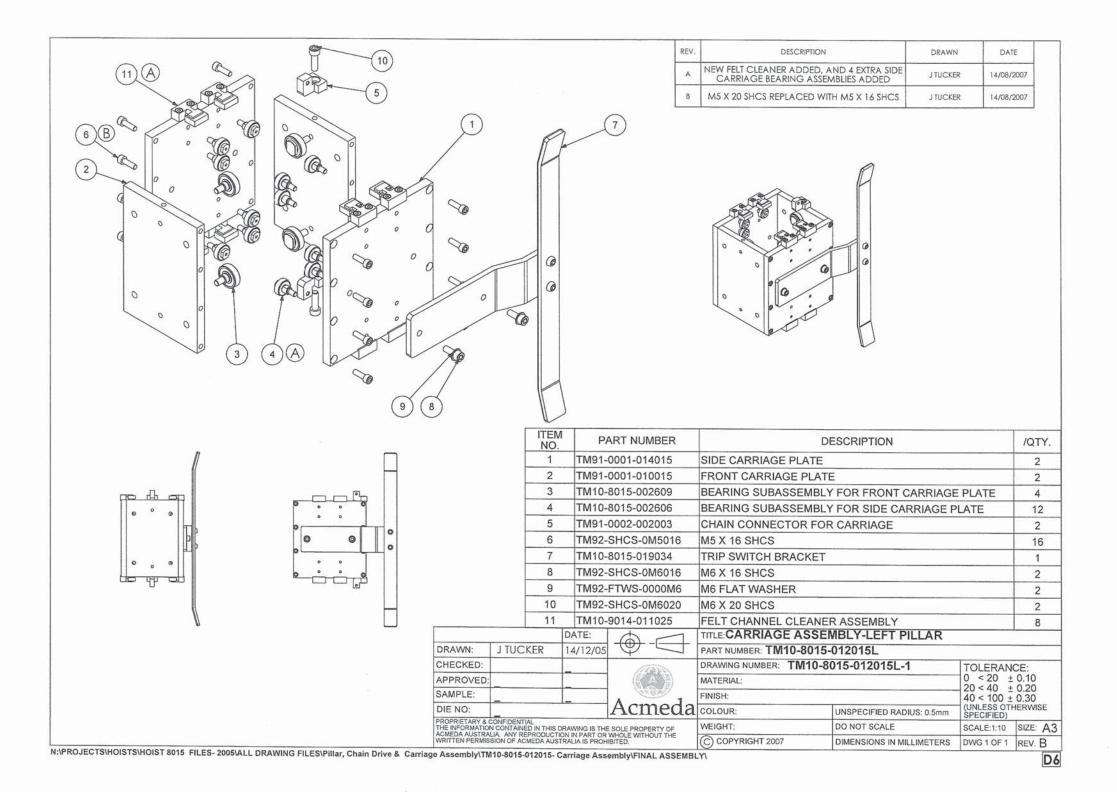


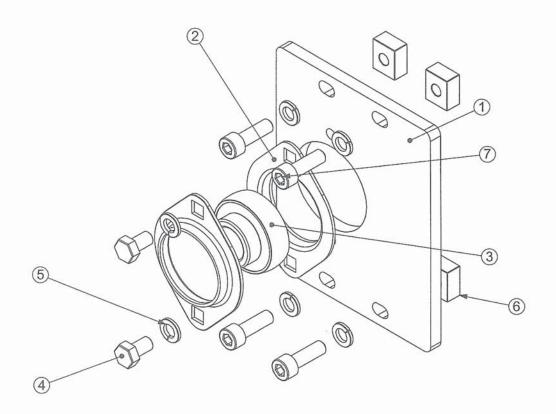
DRAWN BY: JOSEPH TUCKER	TITLE: RIGHT PILLAR BASE FRA	RAME ASSEMBLY			
FINISH:	10 74 2 5 7 7 2 10 10 10 10 10 10 10 10 10 10 10 10 10	SCALE:	TOLERANCE:		
MATERIAL:	11.00	DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05		
PART NUMBER: TM10-8015-	005100R-1	DRAWING 1 OF 1	X.XXX ±0.005		
C COPYRIGHT 2005	ALL DIMENSIONS IN MILLIMETERS	12/12/2005	DEVISION 1		

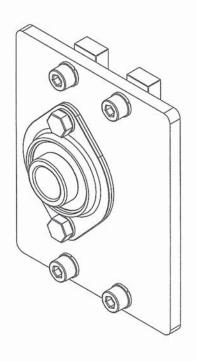








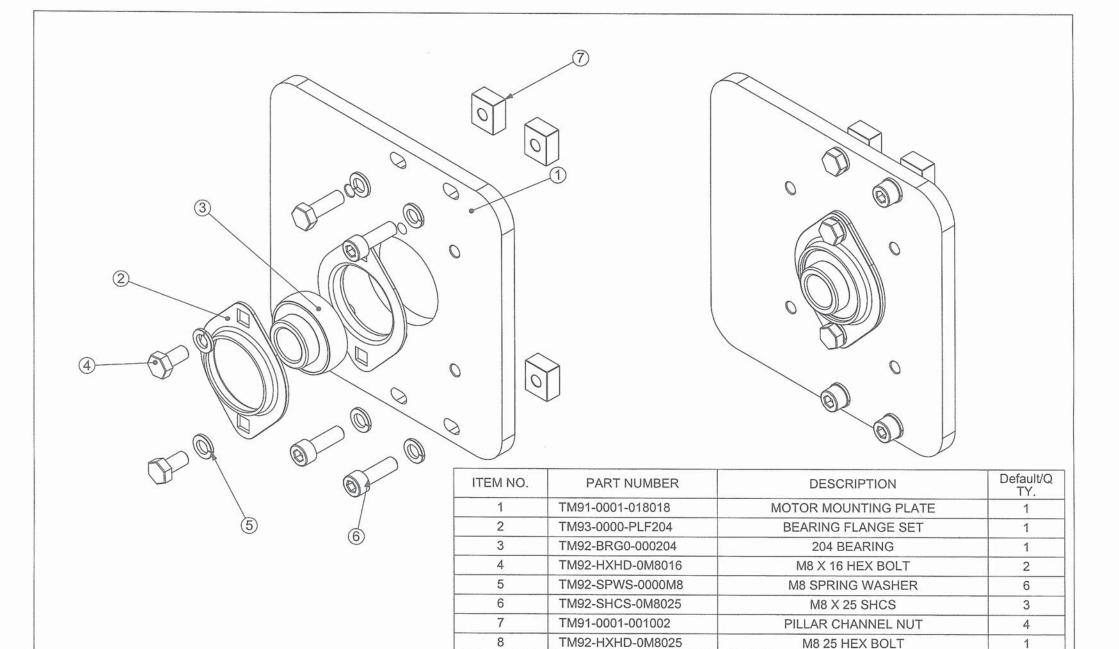




ITEM NO.	PART NUMBER	DESCRIPTION	LeftSide/QTY.
1	TM91-0001-012015	BEARING MOUNTING PLATE	1
2	TM93-0000-PLF204	BEARING FLANGE SET	1
3	TM92-BRG0-000204	204 BEARING	1
4	TM92-HXHD-0M8014	M8 X 14 HEX HEAD BOLT (MACHINED)	2
5	TM92-SPWS-0000M8	M8 SPRING WASHER	6
6	TM91-0001-001002	PILLAR CHANNEL NUT	4
7	TM92-SHCS-0M8025	M8 X 25 SHCS	4

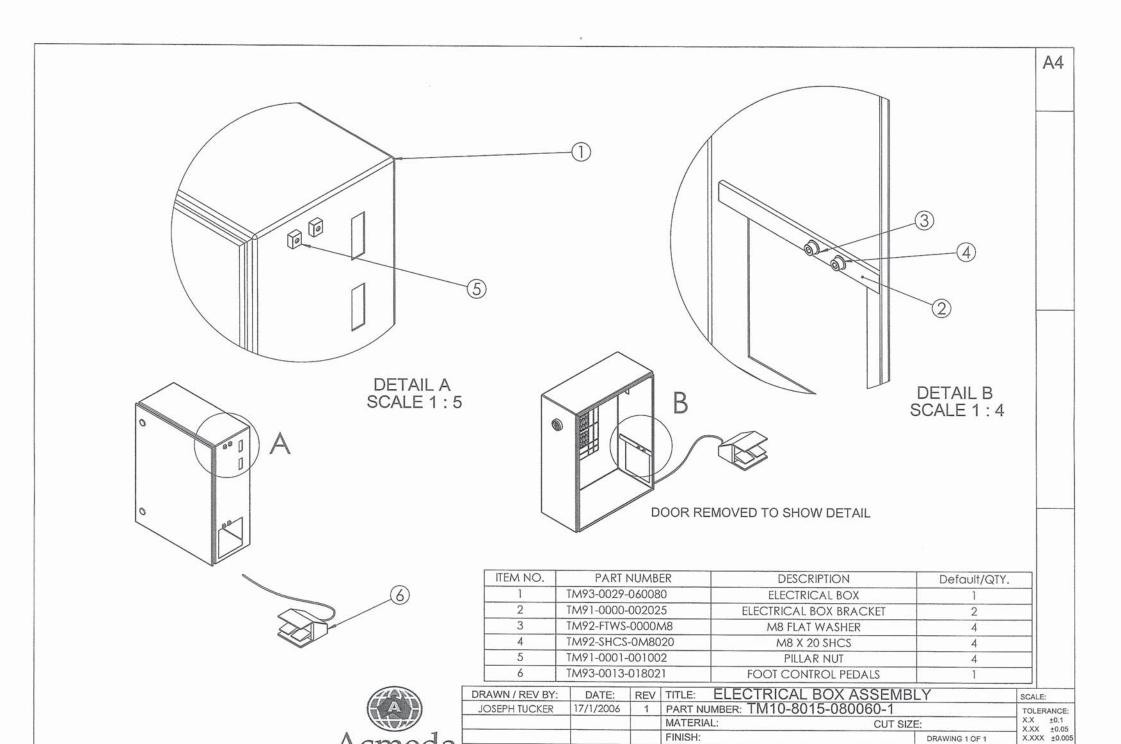


DRAWN BY: JOSEPH TUCKER	TITLE: BEARING MOUNTING I	BEARING MOUNTING PLATE ASSEMBLY-LEFT				
FINISH:		SCALE:1:5	TOLERANCE:			
MATERIAL:	DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05				
PART NUMBER: TM10-8015-01	5204-1 LEFT	DRAWING 1 OF 1	X.XXX ±0.005			
C COPYRIGHT 2004	ALL DIMENSIONS IN MILLIMETERS	22/11/2005	REVISION 1			



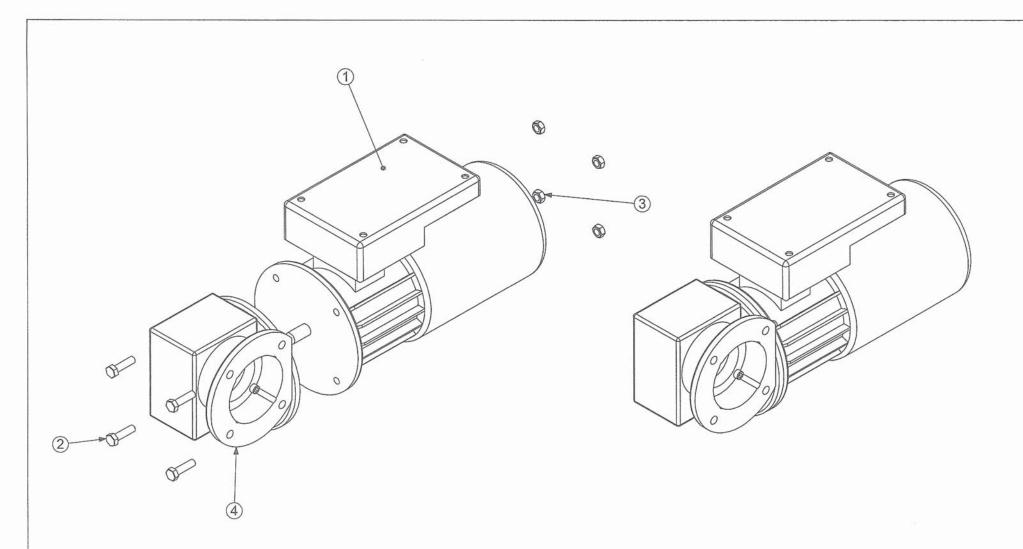
110	D
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A MARK	M
1 2000 0 0	P
Acmeda	0

DRAWN BY: JOSEPH TUCKER	TITLE: MOTOR MOUNTING P	LATE ASSEMBLY			
FINISH:		SCALE:1:5	TOLERANCE:		
MATERIAL:	MATERIAL:				
PART NUMBER: TM10-80	015-018018-1	DRAWING 1 OF 1	X.XX ±0.05 X.XXX ±0.005		
C COPYRIGHT 2004	ALL DIMENSIONS IN MILLIMETERS	23/11/2005	PEVISION 1		

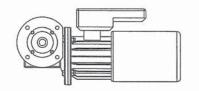


C COPYRIGHT 2006

ALL DIMENSIONS IN MILLIMETERS DO NOT SCALE DRAWING





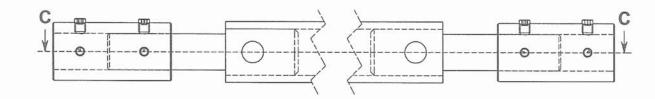


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM93-0011-022031	SERVO MOTOR 15045350 (FCR)	1
2	TM92-HXHD-0M8030	M8 X 30 HEX BOLT	4
3	TM92-MTNT-0000M8	M8 NUT	4
4	TM10-8015-017019	GEARBOX OUTPUT FLANGE	1

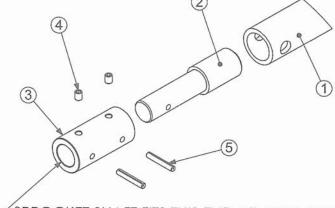


DRAWN BY: JOS	EPH TUCKER	TITLE: MOTOR / GEARBOX ASSEMBLY			
FINISH:			SCALE:1:10	TOLERANCE:	
MATERIAL:			DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05	
PART NUMBER:	TM10-8015-	-023043-1	DRAWING 1 OF 1	X.XXX ±0.005	
COPYRIGHT	2005	ALL DIMENSIONS IN MILLIMETERS	14/12/2005	PEVISION 1	

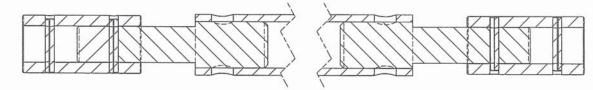




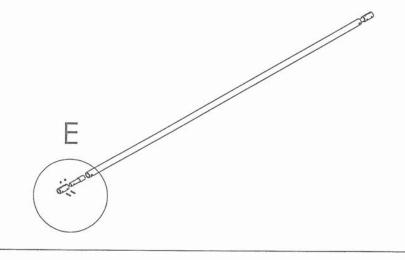
DETAIL E SCALE 1:3



SPROCKET SHAFT FITS THIS END AT ASSEMBLY



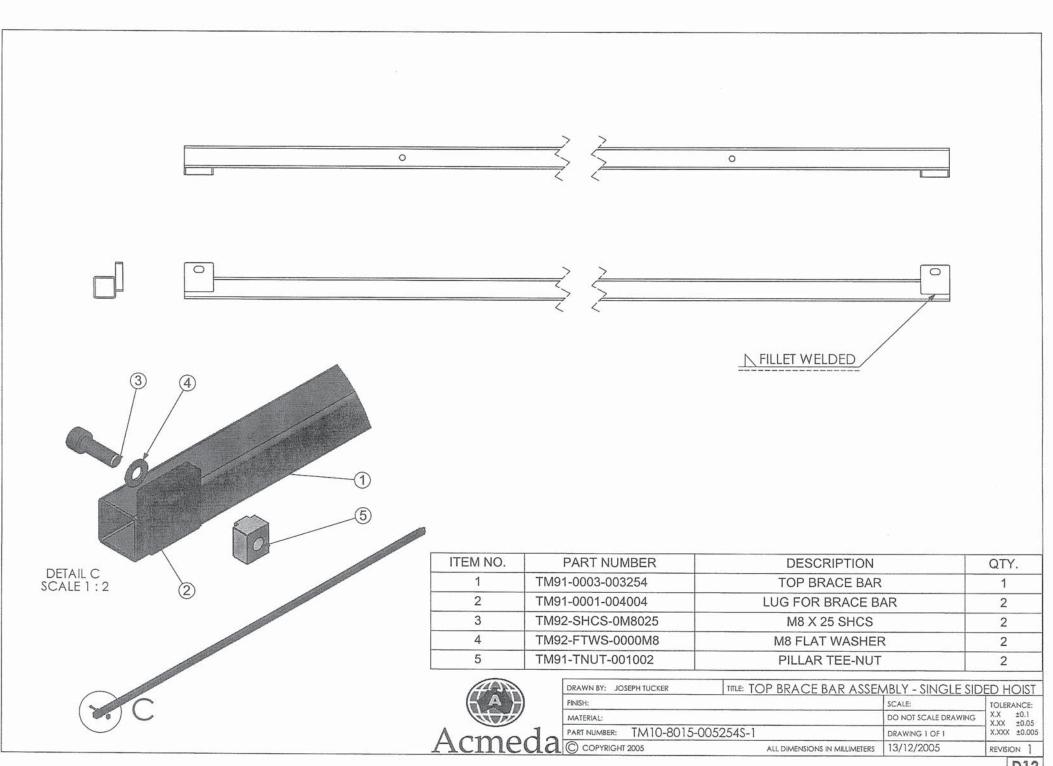
SECTION C-C SCALE 1:2

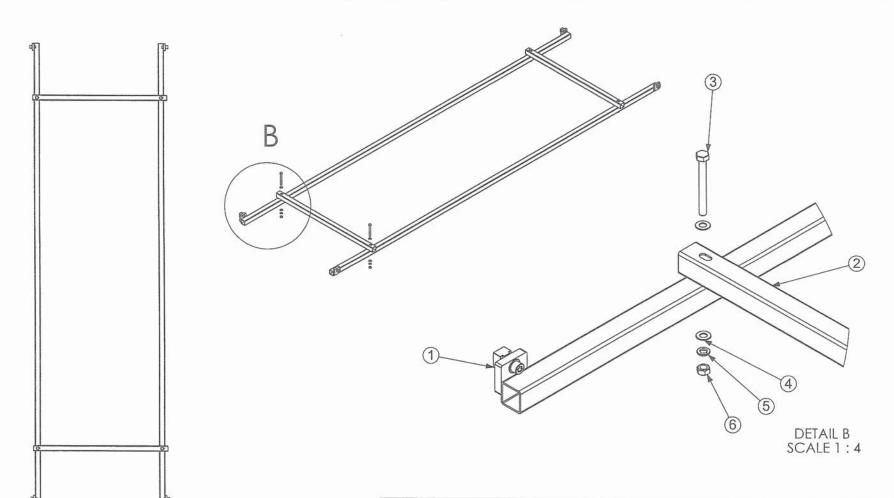


PART NUMBER	DESCRIPTION	QTY.
TM91-TB25-033211	DIA 33.7 X 25.7 BORE STEEL PIPE	1
TM91-8000-002010	DRIVESHAFT - SPIGOT	2
TM91-8000-003006	CONNECTOR-DRIVE SHAFT	2
TM92-GRUB-0M6008	M6 X 8 GRUB SCREW	4
TM92-RPIN-005030	5 X 30 ROLL PIN	4
	TM91-TB25-033211 TM91-8000-002010 TM91-8000-003006 TM92-GRUB-0M6008	TM91-TB25-033211 DIA 33.7 X 25.7 BORE STEEL PIPE TM91-8000-002010 DRIVESHAFT - SPIGOT TM91-8000-003006 CONNECTOR-DRIVE SHAFT TM92-GRUB-0M6008 M6 X 8 GRUB SCREW



DRAWN BY: JOS	EPH TUCKER	TITLE: DRIVESHAFT ASSEMBL	Υ	
FINISH:			SCALE:1:20	TOLERANCE:
MATERIAL:			DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05
PART NUMBER:	TM10-8015	5-002224-1	DRAWING 1 OF 3	X.XXX ±0.005
C COPYRIGHT	2004	ALL DIMENSIONS IN MILLIMETERS	29/11/2005	PEVISION 1

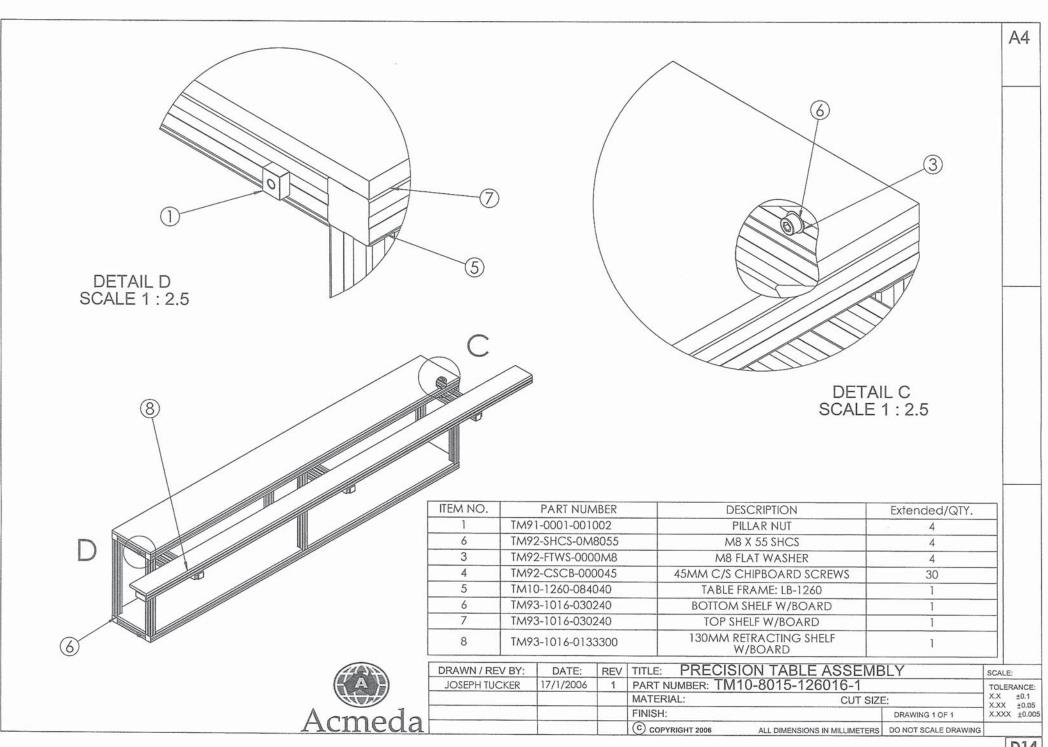


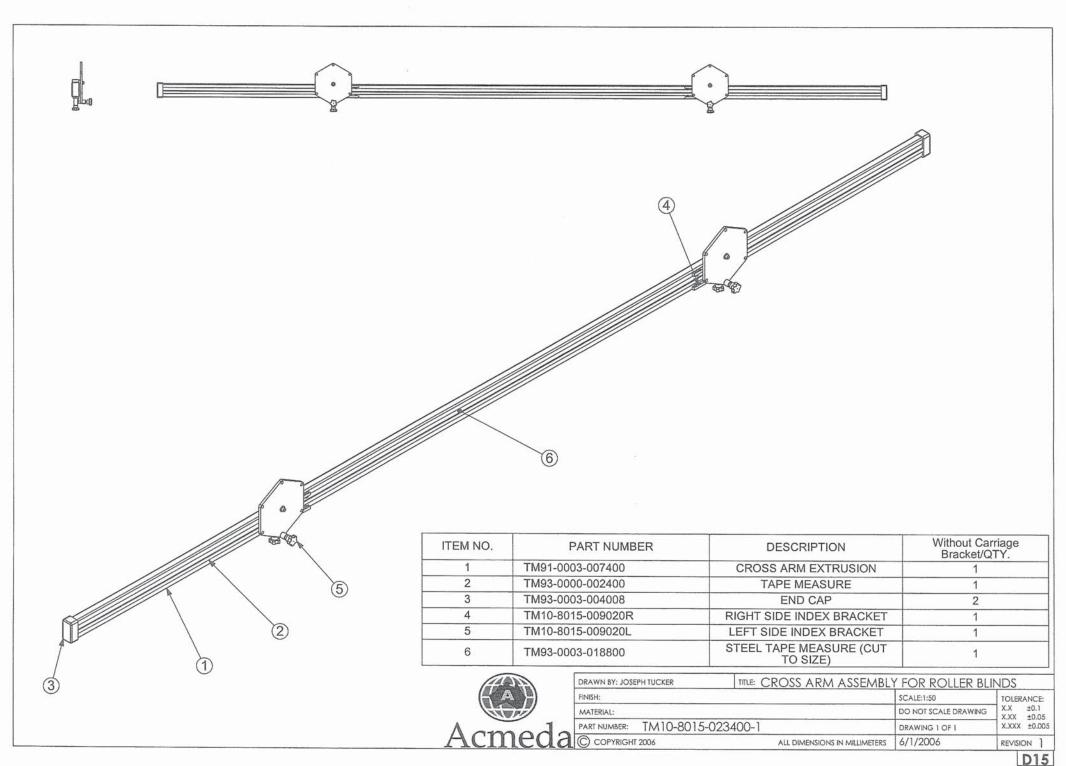


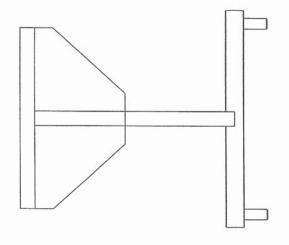
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM10-8015-005254S	TOP BRACE BAR ASSEMBLY	2
2	TM91-0003-003074	BRIDGE BAR	2
3	TM92-HXHD-0M8075	M8 X 75 HEX BOLT	4
4	TM92-FTWS-0000M8	M8 FLAT WASHER	8
5	TM92-SPWS-0000M8	M8 SPRING WASHER	4
6	TM92-MTNT-0000M8	M8 NUT	4

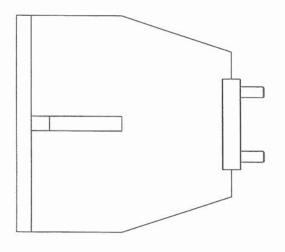


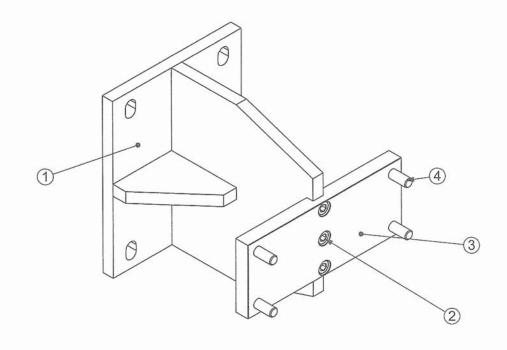
	DRAWN BY: JOSEPH TUCKER	TITLE: TOP BRACE BAR ASSET	MBLY- DOUBLE SIE	DE HOIST
	FINISH:		SCALE:	TOLERANCE:
3	MATERIAL:		DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05
	PART NUMBER: TM10-8015-00	05254D-1	DRAWING 1 OF 1	X.XXX ±0.005
1	C COPYRIGHT 2006	ALL DIMENSIONS IN MILLIMETERS	6/1/2006	REVISION 1







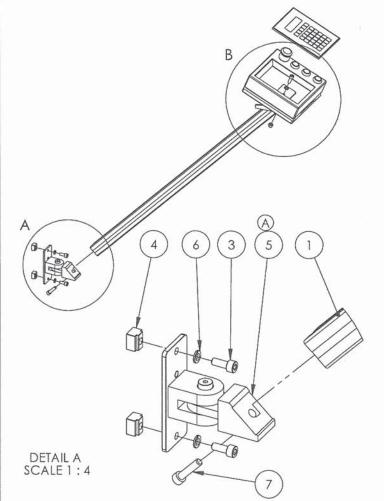




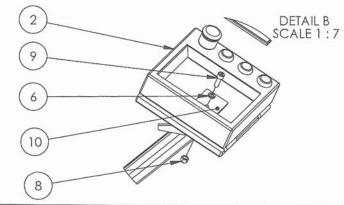
ITEM NO.	PART NUMBER	DESCRIPTION	Default/Q TY.
1	TM10-8015-012012	Cross Arm Carriage Bracket	1
2	TM92-SHCS-0M5016	M5 x 16 SHCS	3
3	TM91-0001-012005	Cross Arm Mounting Plate	1
4	TM92-SHCS-0M6016	M6 X 16 SHCS	4



DRAWN BY: JOSEPH TUCKER TITLE: CROSS ARM MOUNTING BRACKET/PLATE ASSEMB				
FINISH:			SCALE:	TOLERANCE:
MATERIAL:			DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05
PART NUMBER:	TM10-8015-0	012013-1	DRAWING 1 OF 1	X.XXX ±0.005
(C) COPYRIGHT	2005	ALL DIMENSIONS IN MILLIMETER	s 21/11/2005	REVISION 1



REV.	DESCRIPTION	DRAWN	DATE
Α	NEW SWING ARM MOUNT ASSY ADDED TO REPLACE PREVIOUS.	J TUCKER	13/08/2007



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM93-00LB-050721	SWING ARM - LINEAR BEARINGS AS PER LB-050721	1
2	TM10-8015-020020	CONTROL PANEL INTERFACE	-1
3	TM92-SHCS-0M8020	M8 X 20 SHCS	2
4	TM91-TNUT-001002	TEE NUT FOR PILLAR	2
5	TM10-8015-124130	SWING ARM MOUNT ASSEMBLY FOR 8015 HOIST	1
6	TM92-SPWS-0000M8	M8 SPRING WASHER	3
7	TM92-SHCS-0M8035	M8 X 35 SHCS	1
8	TM92-NYLK-0000M8	M8 NYLOCK	1
9	TM92-SHCS-0M8025	M8 X 25 SHCS	1
10	TM91-0005-050090	INTERNAL MOUNT PLATE -CONTROL PANEL	1

DATE: DRAWN: J TUCKER 13/08/07 CHECKED: APPROVED: SAMPLE: Acmeda COLOUR: DIE NO: PROPRIETARY & CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF ACMEDA AUSTRALIA. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF ACMEDA AUSTRALIA IS PROHIBITED. (C) COPYRIGHT 2007

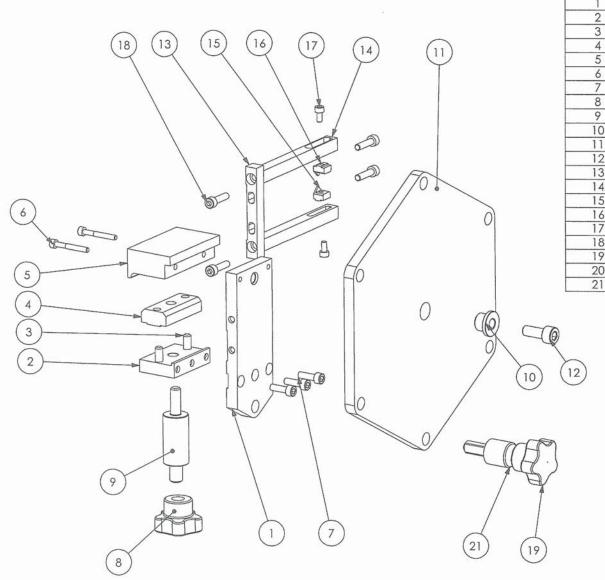
TITLE: CONTROL PANEL / SWING ARM ASSEMBLY

PART NUMBER: TM10-8015-020125

TOLERANCE: DRAWING NUMBER: TM10-8015-020125-1 XXX ± 1.00 MATERIAL: XX.X ± 0.20 X.XX ± 0.05 FINISH: ANGLES ± 2° UNSPECIFIED RADIUS: 0.5mm (UNLESS OTHERWISE SPECIFIED) WEIGHT: DO NOT SCALE SCALE:1:20 SIZE: A4

DIMENSIONS IN MILLIMETERS

DWG 1 OF 1 REV. A



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM91-0001-005012	UPRIGHT BRACKET	1
2	TM91-0001-003005	CLAMP NUT	1
3	TM92-DW00-006020	6 X 20 DOWEL	2
4	TM91-0001-002005	TEE NUT-INTERNAL	1
5	TM93-0002-004007	NYLON SUPPORT BRACKET	1
6	TM92-SHCS-0M4030	M4 X 30 SHCS	2
7	TM92-SHCS-0M5016	M5 X 16 SHCS	3
8	TM93-8000-069954	STAR KNOB	1
9	TM91-8000-002007	TEE NUT SCREW SHAFT	1
10	TM91-8000-002001	LOCATING BUSH	1
11	TM91-0001-022022	INDEXING PLATE	1
12	TM92-SHCS-0M8020	M8 X 20 SHCS	1
13	TM91-0001-001007	BRACE BAR	1
14	TM91-0001-001010	INDICATOR EXTENSION ARM	2
15	TM91-1002-001001	BOTTOM INDICATOR	1
16	TM91-1002-001001	TOP INDICATOR	1
17	TM92-SHCS-0M4008	M4 X 8 SHCS	2
18	TM92-SHCS-0M5020	M5 X 20 SHCS	4
19	TM93-8000-069965	STAR KNOB M8 STUD	1
20	TM93-8000-888888	5MM BALL BEARING	1
21	TM91-8000-002004	AUTO LOCKING PIN	1

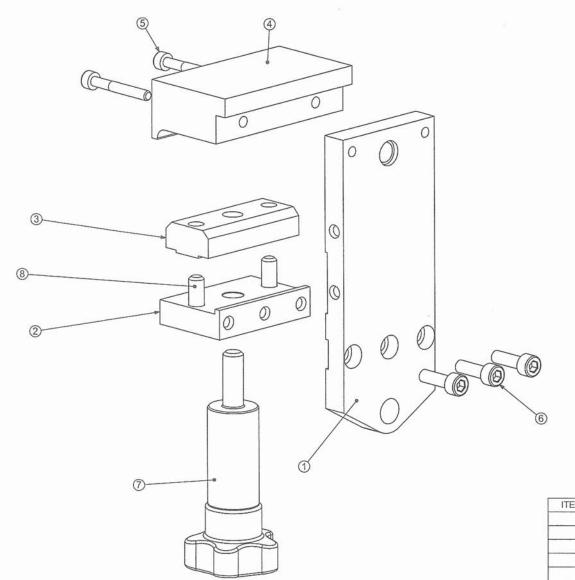
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1		100			
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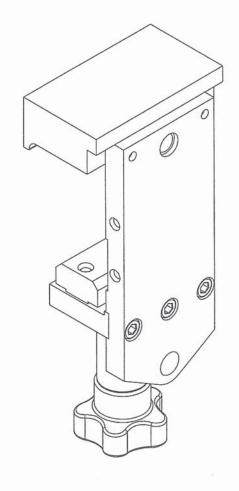
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-,	DRAWING IN	FORMATION:	DATE:	SIGN:	NOTES:
)	DRAWN:	J. TUCKER	4/04/2006		11779ANA NO.
	CHECKED:				
	APPROVED:				
	SAMPLE:				4 7
	SAMPLE:				((<u>0</u>) -
	SAMPLE:				

	TITLE:					
	PART NUMBER: TM10-8015-009020					
	DRAWING NUMBER: TM10-801	5-009020L-BOM		size: A3		
	MATERIAL:			TOLERANCE:		
Т	FINISH:		DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05		
	WEIGHT:		SCALE:1:5	XXXX ±0.005		
	C COPYRIGHT 2005	ALL DIMENSIONS IN MILLIMETERS	DRAWING 1 OF 1	REVISION 1		

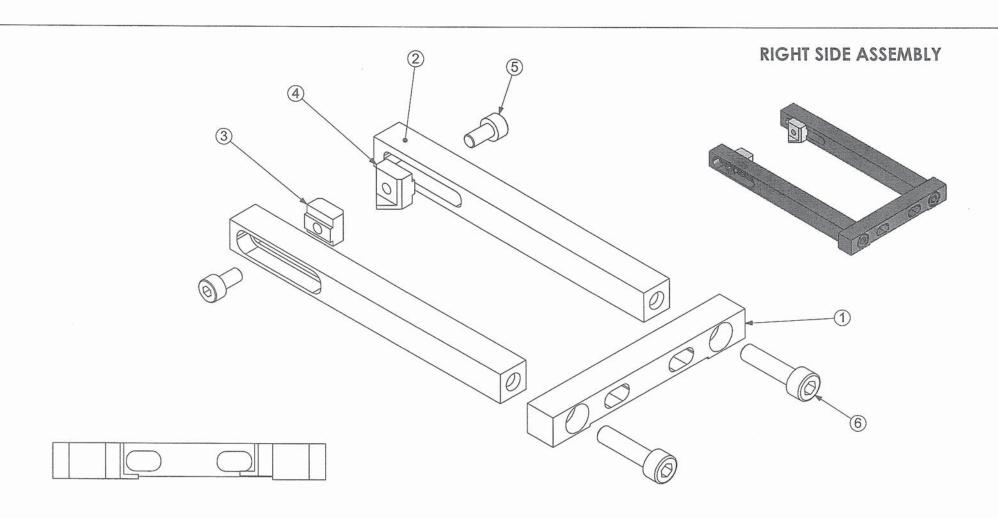




ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM91-0001-005012	UPRIGHT BRACKET	1
2	TM91-0001-003005	CLAMP NUT	1
3	TM91-0001-002005	TEE NUT INTERNAL	1
4	TM93-0002-004007	NYLON SUPPORT BRACKET	1
5	TM92-SHCS-0M4030	M4 X 30 SHCS	2
6	TM92-SHCS-0M5016	M5 X 16 SHCS	3
7	TM10-8015-004009	STAR KNOB/ SCREW SHAFT ASSEMBLY	1
8	TM92-DW00-006020	6 X 20 METRIC DOWEL	2



DRAWN BY: JOSEPH TUCKER TITLE: UPRIGHT BRACKET ASSEMBLY				
FINISH:		SCALE:1:2	TOLERANCE:	
MATERIAL:	DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05		
PART NUMBER: TM10-8015-0	07008-1	DRAWING 1 OF 1	XXXX ±0.005	
C COPYRIGHT 2004	ALL DIMENSIONS IN MILLIMETERS	17/11/2005	REVISION 1	

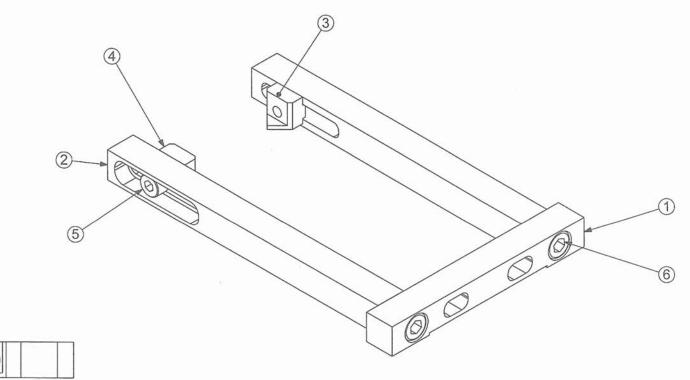


ITEM NO.	PART NUMBER	DESCRIPTION	RH/QTY.
1	TM91-0001-001007	BRACE BAR	1
2	TM91-0001-001010	INDICATOR EXTENSION ARM	2
3	TM91-1001-001001	BOTTOM INDICATOR	1
4	TM91-1002-001001	TOP INDICATOR	1
5	TM92-SHCS-0M4008	M4 X 8 SHCS	2
6	TM92-SHCS-0M5020	M5 X 20 SHCS	2



DRAWN BY: JOSEPH TUCKER TITLE: INDICATOR EXTENSION ARM ASSEMBLY				
FINISH:		SCALE:1:2	TOLERANCE:	
MATERIAL:	DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05		
PART NUMBER: TM10-8015-007011R-1		DRAWING 1 OF 1	X.XXX ±0.005	
COBABICHT 3004	ALL DIMENSIONS IN MILLIMETERS	17/11/2005	program 1	

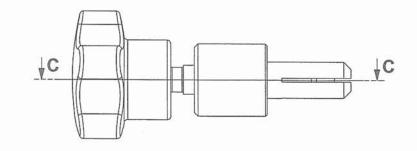
LEFT SIDE ASSEMBLY

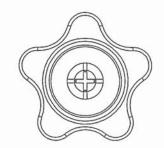


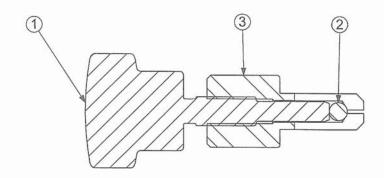
ITEM NO.	PART NUMBER	DESCRIPTION	LH/QTY.
1	TM91-0001-001007	BRACE BAR	1
2	TM91-0001-001010	INDICATOR EXTENSION ARM	2
3	TM91-1001-001001	BOTTOM INDICATOR	1
4	TM91-1002-001001	TOP INDICATOR	1
5	TM92-SHCS-0M4008	M4 X 8 SHCS	2
6	TM92-SHCS-0M5020	M5 X 20 SHCS	2

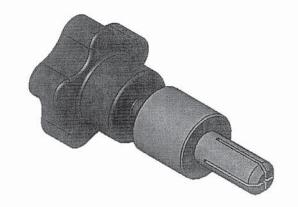


DRAWN BY: JOSEPH TUCKER	VN BY: JOSEPH TUCKER TITLE: INDICATOR EXTENSION ARM ASSEMBLY			
FINISH:		SCALE:1:2	TOLERANCE:	
MATERIAL:		DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05	
PART NUMBER: TM10-8015-00	7011L-1	DRAWING 1 OF 1	X.XXX ±0.005	
C COPYRIGHT 2004	ALL DIMENSIONS IN MILLIMETERS	18/11/2005	REVISION 1	







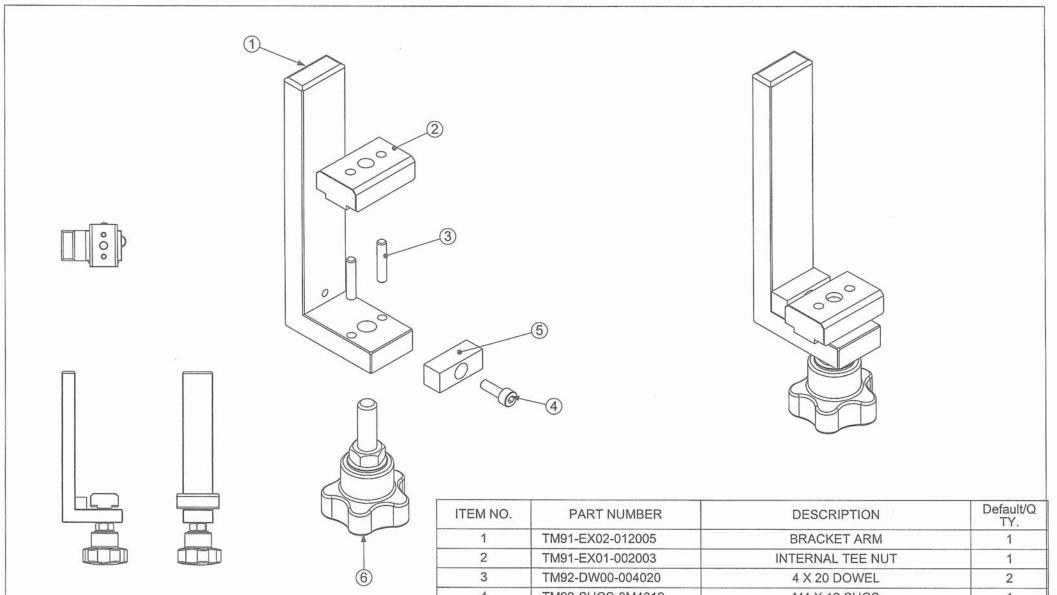


SECTION C-C SCALE 1:1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TM93-8000-069965	STAR KNOB	1
2	TM93-8000-888888	5MM BALL BEARING	1
3	TM91-8000-002004	AUTO-LOCKING PIN	1



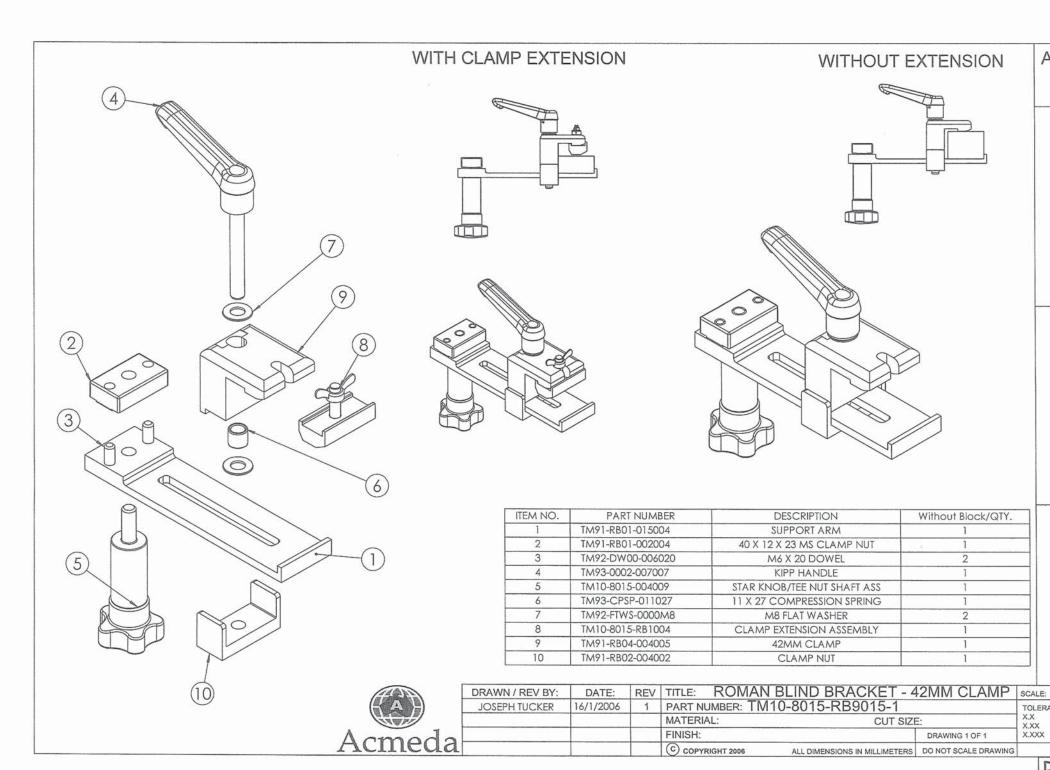
DRAWN BY: JOSEPH TUCKER	TITLE: AUTO LOCK PIN ASSEMBLY			
FINISH:	SC		TOLERANCE:	
MATERIAL:		DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05	
PART NUMBER: TM10-8015-00)4008-1	DRAWING 1 OF 1	X.XXX ±0.005	
C COPYRIGHT 2004	ALL DIMENSIONS IN MILLIMETERS	14/11/2005	REVISION 1	



ITEM NO.	PART NUMBER	DESCRIPTION	TY.
1	TM91-EX02-012005	BRACKET ARM	1
2	TM91-EX01-002003	INTERNAL TEE NUT	1
3	TM92-DW00-004020	4 X 20 DOWEL	2
4	TM92-SHCS-0M4012	M4 X 12 SHCS	1
5	TM93-EX01-001002	NYLON SPACER	1
6	TM10-8015-169965	30MMM STAR KNOB CLAMP	1



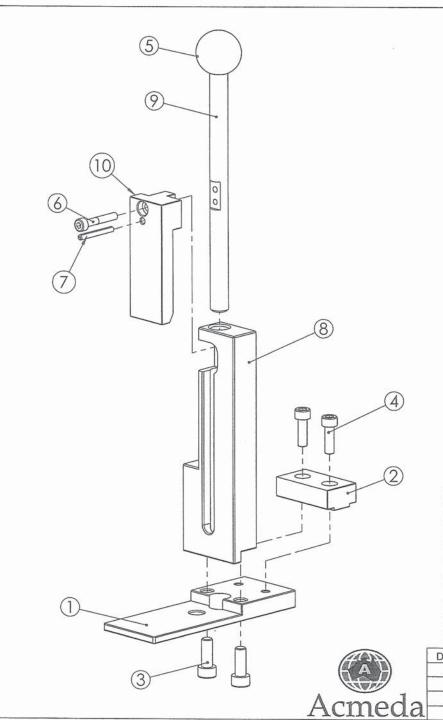
DRAWN BY: JOSEPH TUCKER	ET FOR 6 METER EXTENSION		
FINISH:		SCALE:1:5	TOLERANCE:
MATERIAL:		DO NOT SCALE DRAWING	X.X ±0.1 X.XX ±0.05
PART NUMBER: TM10-8015-EX	(5012-1	DRAWING 1 OF 1	X.XXX ±0.005
COPYRIGHT 2005	ALL DIMENSIONS IN MILLIMETERS	15/12/2005	PEVISION 1

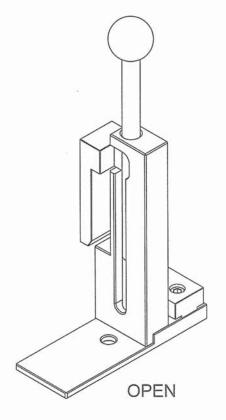


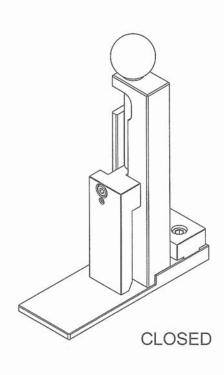
D24

TOLERANCE: X.X ±0.1 X.XX ±0.05 X.XXX ±0.005

A4



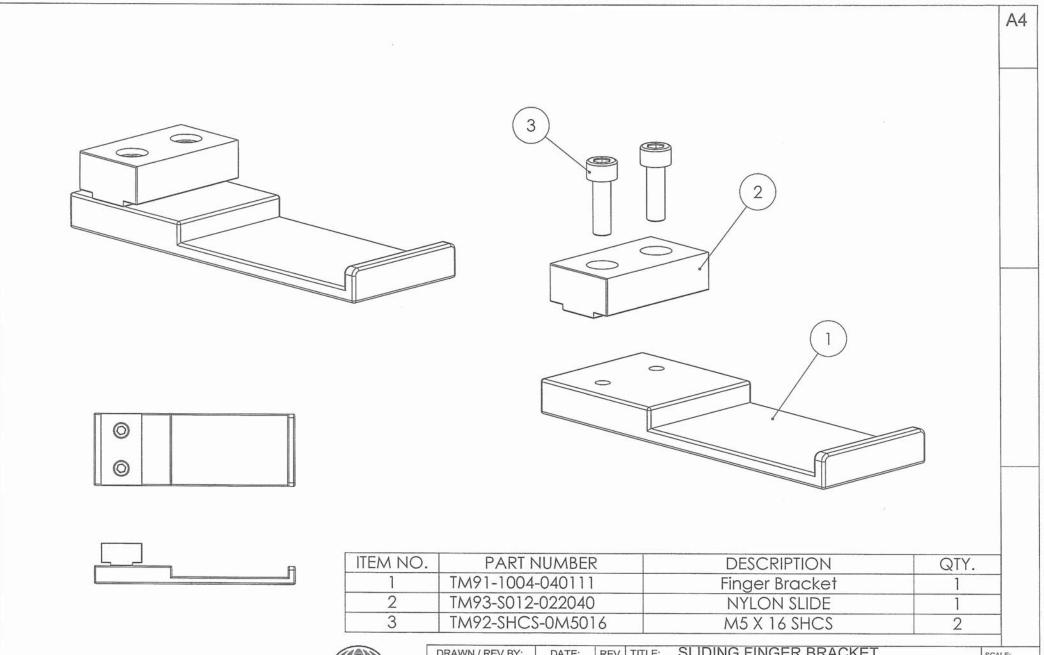




ITEM NO.	PART NUMBER	DESCRIPTION	Final Rev Down/QTY.
1	TM91-S010-040110	RAIL SUPPORT	1
2	TM93-S012-022040	NYLON SLIDE	1
3	TM92-SHCS-0M6016	M6 X 16 SHCS	2
4	TM92-SHCS-0M5016	M5 X 16 SHCS	2
5	TM93-S000-2000M8	BALL HANDLE M8 THREAD	1
6	TM92-SHCS-0M4025	M4 X 25 SHCS	1
7	TM92-RPIN-003026	3 x 26 ROLL PIN	1
8	TM91-S018-040125	CLAMP HOUSING	1
9	TM91-S000-010020	SAFETY BRACKET SHAFT	1
10	TM93-S022-030063	HOLDING FINGER	1

DRAWN / REV BY:	DATE:	REV	TITLE: SAFET	BRACKET ASSEME	LY	SCALE:
JOSEPH TUCKER	9/02/2006	1	PART NUMBER: TM	10-8015-701401-1		TOLERANCE:
			MATERIAL:	CUT SIZE	Ξ:	X.X ±0.1 X.XX ±0.05
			FINISH:		DRAWING 1 OF 1	X.XXX ±0.005
			C COPYRIGHT 2006	ALL DIMENSIONS IN MILLIMETERS	DO NOT SCALE DRAWING	

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J	DRAWN / REV BY:	DATE:	REV	TITLE: SLIDING	G FINGER BRACKET		SCALE:	
	JOSEPH TUCKER	27/03/2006	1	1 PART NUMBER: TM10-8015-040111-1			TOLER	ANCE:
				MATERIAL:	CUT SIZ	E:		±0.1 ±0.05
j				FINISH:		DRAWING 1 OF 1	X.XXX	
				C COPYRIGHT 2006	ALL DIMENSIONS IN MILLIMETERS	DO NOT SCALE DRAWING		

