N:\SolidWorks\Customer\CP5508-1CD.slddrw

Last Saved: tom.southall on 18 July 2022 12:59:52

A0 INSTALLATION DRAWING

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FIRST ANGLE PROJECTION

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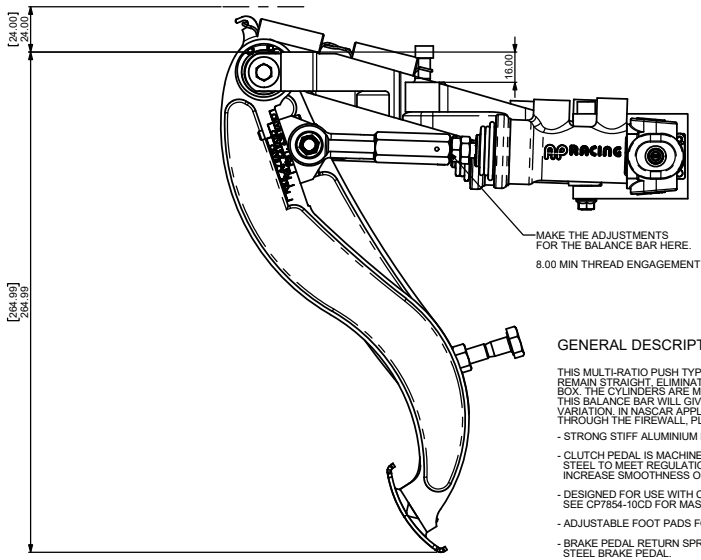
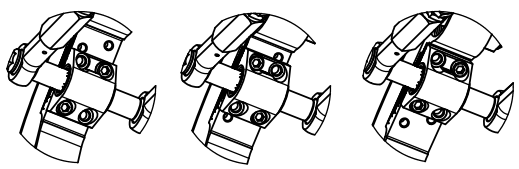
Issue No	Alterations Date & No.	Particulars	Zone	Initials
1	18/10/2005 B4311	FIRST ISSUE	#	CDA
2	13/03/2006 B4311	BASE PLATE DESIGN CHANGED	#	CDA
3	30/06/2006 B4311	SHEET3 SPARES LIST ADDED, CP5855 CLUTCH CYL WAS REPLACED WITH CP5854.	#	CDA
4	01/05/2007	SHEET3, SPARES LIST UPDATED.	#	CDA
5	18/09/2007	NOTE REFERENCE AVAILABILTY OF TRAVEL SENSOR ADDED TO SHEET 1.	#	DRA
6	16/10/2008	BALANCE BAR AND EXTRAS UPDATED.	#	CDA
7	17/11/09 B5732	MASTER CYLINDERS CHANGED TO CP7854 TYPE WERE CP5854.	#	RLB
8	18/07/22 B8281_01	**SHEET 1** IMPORTANT BALANCE BAR LIFE INFORMATION NOTE ADDED	B8	TS



MULTI-RATIO

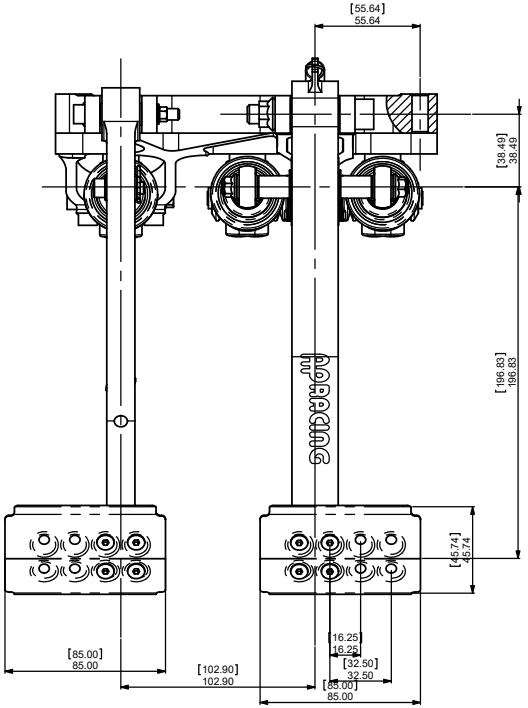


4.7 : 1 RATIO

5.4 : 1 RATIO

6.25 : 1 RATIO

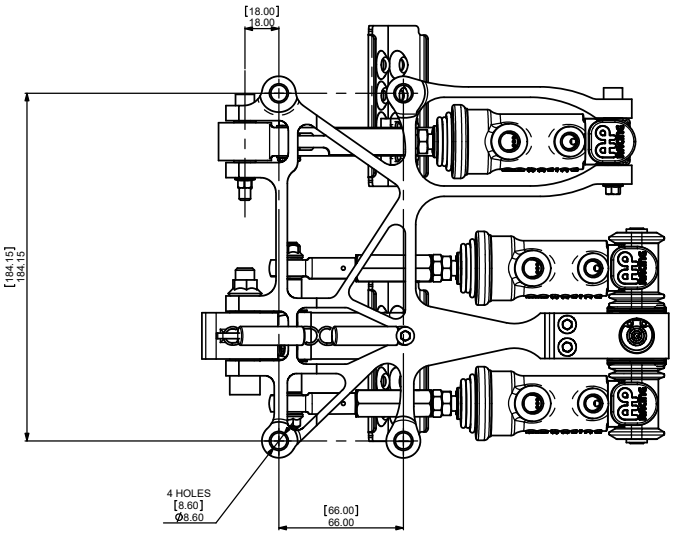
TO ALTER THE RATIO, JUST UN-BOLT THE BRACKET AND MOVE IT TO A DIFFERENT POSITION.

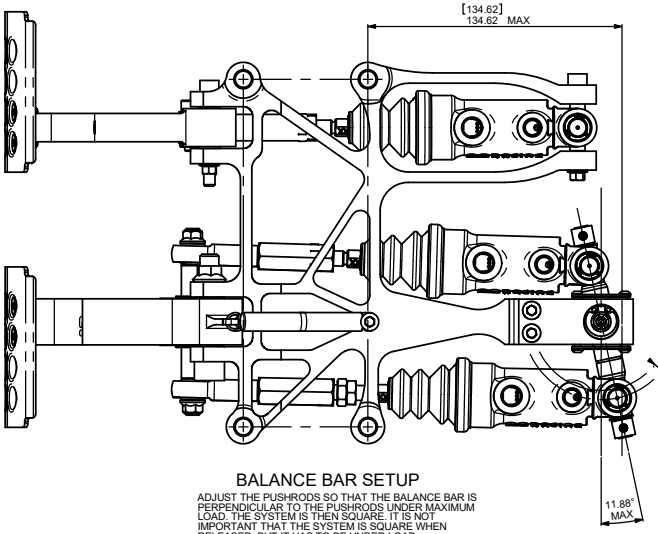


GENERAL DESCRIPTION

THIS MULTI-RATIO PUSH TYPE DESIGN PEDAL BOX ALLOWS THE PUSHROD TO REMAIN STRAIGHT, ELIMINATING ALL SIDE LOADS MAKING IT AN EFFICIENT PEDAL BOX. THE CYLINDERS ARE MOUNTED TO A HIGH EFFICIENCY BALANCE BAR. THIS BALANCE BAR WILL GIVE YOU MINIMUM HYSTERESIS AND BALANCE VARIATION. IN NASCAR APPLICATIONS THE PEDAL BOX WILL HAVE TO BE FITTED THROUGH THE FIREWALL, PLEASE FOLLOW INSTRUCTIONS GIVEN.

- STRONG STIFF ALUMINIUM BASE, MACHINED FROM SOLID, FOR THE BEST EFFICIENCY.
- CLUTCH PEDAL IS MACHINED FROM ALUMINIUM BILLET. BRAKE PEDAL IS MACHINED FROM STEEL TO MEET REGULATIONS, BOTH PEDALS ARE PIVOTED BY BALL BEARINGS TO INCREASE SMOOTHNESS OF FEEL FOR THE DRIVER.
- DESIGNED FOR USE WITH CP7854 MASTER CYLINDERS. SEE CP7854-10CD FOR MASTER CYLINDER DETAILS.
- ADJUSTABLE FOOT PADS FOR EXTRA DRIVER COMFORT.
- BRAKE PEDAL RETURN SPRING TO REDUCE THE LOAD ON THE CYLINDERS FROM THE STEEL BRAKE PEDAL.
- ADJUSTABLE PEDAL STOPS ON CLUTCH PEDAL.
- BRAKE PEDAL HAS MULTI-RATIO MOUNTING BRACKET, CAN BE ADJUSTER FOR 4.7, 5.4 AND 6.25 :1 RATIOS.





**** IMPORTANT NOTE**
BRAKE PIPES MUST NOT RESTRICT THE OPERATION OR ADJUSTMENT OF THE BALANCE BAR.

BALANCE BAR SETUP

ADJUST THE PUSHRODS SO THAT THE BALANCE BAR IS PERPENDICULAR TO THE PUSHRODS UNDER MAXIMUM LOAD. THE SYSTEM IS THEN SQUARE. IT IS NOT IMPORTANT THAT THE SYSTEM IS SQUARE WHEN RELEASED, BUT IT HAS TO BE UNDER LOAD.

FOR MAXIMUM EFFICIENCY, IT IS RECOMMENDED THAT THE PEDAL IS AT RIGHT ANGLE WITH THE PUSHRODS UNDER MAXIMUM BRAKING LOAD; AND ALSO KEEPING THE BALANCE BAR CENTRAL WITH BETTER SELECTION OF MASTER CYLINDER SIZES HELPS REDUCE INEFFICIENCIES.

ALSO MAKE SURE THAT THE MASTER-CYLINDER PISTONS FULLY RETURN BEFORE USE. THIS CAN BE CHECKED BY FEELING THE PUSHRODS FOR SLIGHT MOVEMENTS THERE SHOULD NOT BE ANY EXCESSIVE LOOSE MOVEMENT.

MAX ANGLE ADJUSTMENT AT SETUP. THIS IS SET BY ADJUSTING THE THREAD ENGAGEMENT OF THE ROD END AND MASTER CYLINDER PISTON.

THIS RELATES TO 9.0mm OF DIFFERENCE IN TRAVEL OF FRONT TO REAR CYLINDERS. REMEMBER THE BALANCE BAR SHOULD BE PERPENDICULAR WHEN AT MAX BRAKE PRESSURE.

NOTE:-
A TRAVEL SENSOR KIT TO SUIT THE MASTER CYLINDERS USED WITH THIS PEDAL BOX IS AVAILABLE UNDER THE PART No. CP5854-10.
THE TRAVEL SENSOR MOUNTS ONTO THE CYLINDER. FOR INSTALLATION DATA SEE DRAWING CP5854-10CD.

IMPORTANT BALANCE BAR LIFE INFORMATION - ABS APPLICATIONS
IT IS RECOMMENDED THAT THE BALANCE BAR, E-CLIPS AND SNAP RINGS ARE REPLACED AFTER 15,000Km OF USE IN HIGH PRESSURE ABS APPLICATIONS, SEE SHEET 3 FOR RELEVANT PART NUMBERS.

SCALE 1:1 | SHEET 1 OF 3

DRAWN: Chris Arrowsmith
APPROVED:
DERIVED FROM:

TITLE
UNDERSLUNG PUSH TYPE PEDAL BOX

DRG NO. CP5508-1CD

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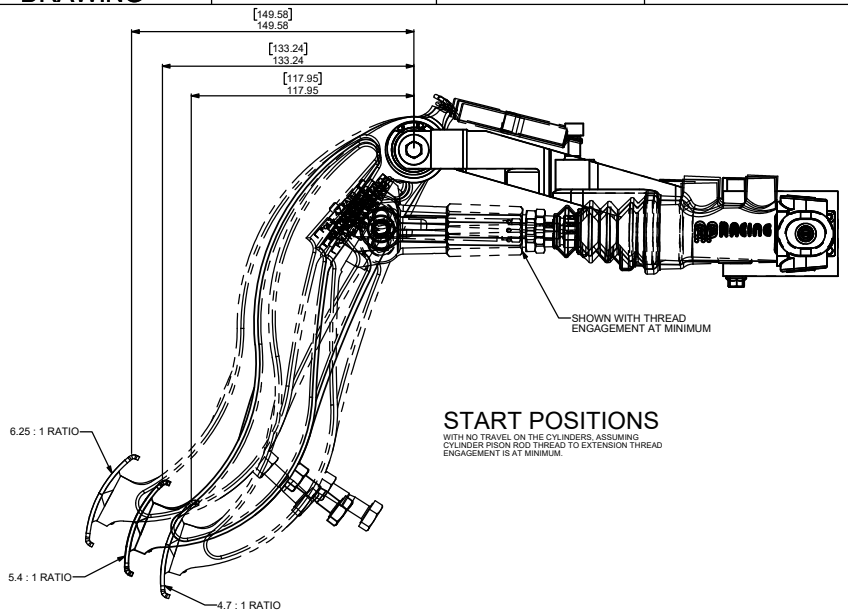
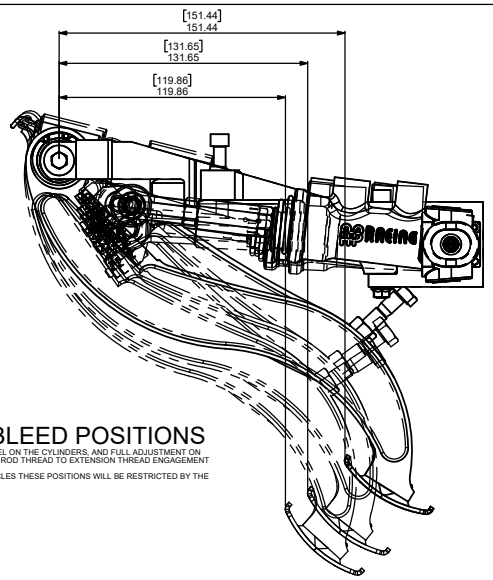
-	-	SEE SHEET 1 FOR ISSUE INFORMATION.	-	-



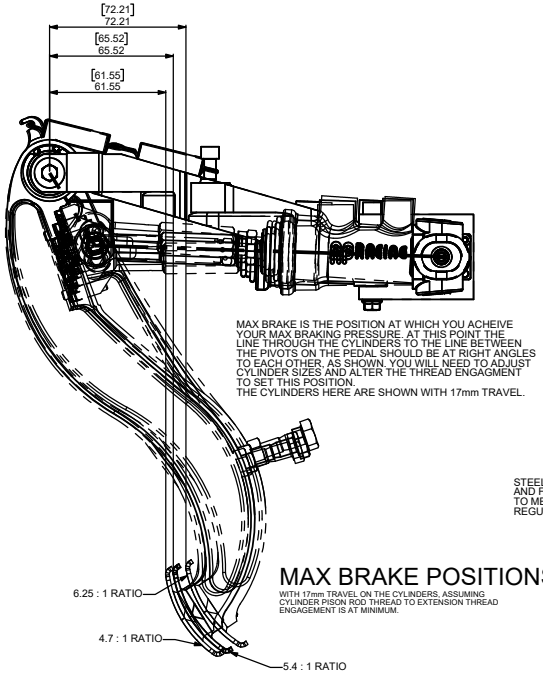
START POSITIONS

WITH NO TRAVEL ON THE CYLINDERS, ASSUMING CYLINDER PISON ROD THREAD TO EXTENSION THREAD ENGAGEMENT IS AT MINIMUM.



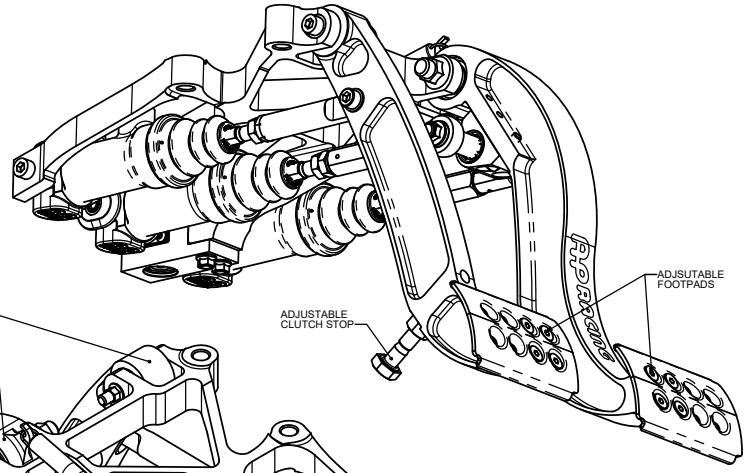
MAX BLEED POSITIONS

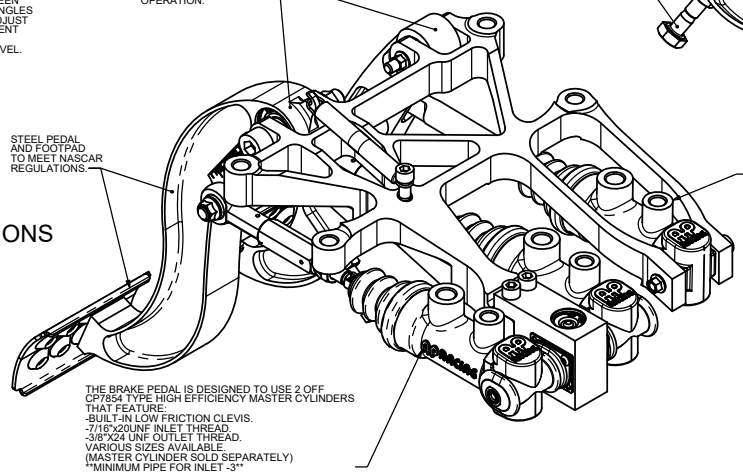
WITH FULL TRAVEL ON THE CYLINDERS, AND FULL ADJUSTMENT ON CYLINDER PISON ROD THREAD TO EXTENSION THREAD ENGAGEMENT IS AT MAXIMUM.
IN NASCAR VEHICLES THESE POSITIONS WILL BE RESTRICTED BY THE FIREWALL.



MAX BRAKE POSITIONS

WITH 17mm TRAVEL ON THE CYLINDERS, ASSUMING CYLINDER PISON ROD THREAD TO EXTENSION THREAD ENGAGEMENT IS AT MINIMUM.





SCALE 1:1	SHEET 2 OF 3
DRAWN	Chris Arrowsmith
APPROVED	
DERIVED FROM	

TITLE
UNDERSLUNG PUSH TYPE
PEDAL BOX

DRG NO. CP5508-1CD

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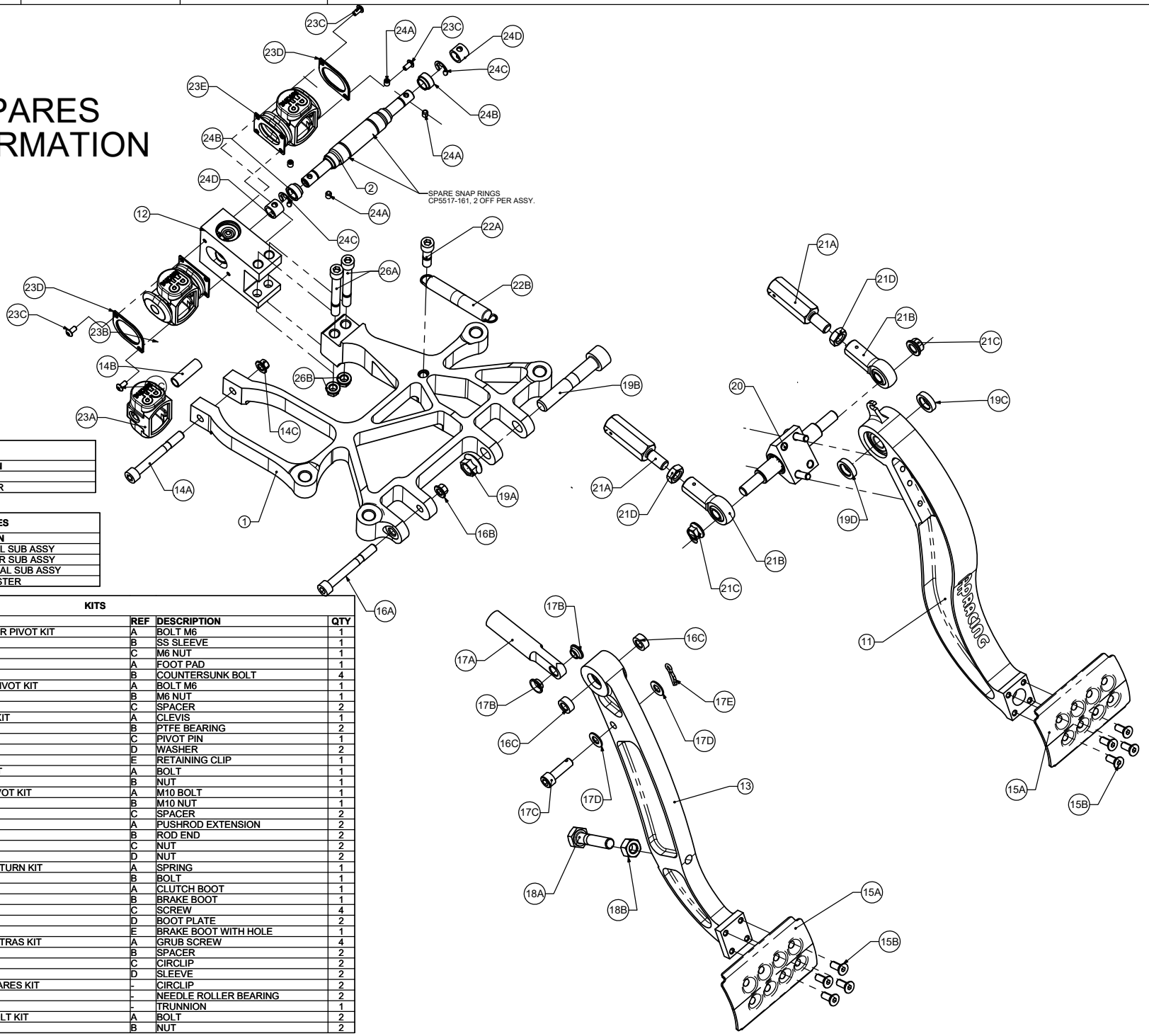
SPARES INFORMATION



PARTS		
REF	Pt No.	DESCRIPTION
1	CP5508-101	BASE PLATE
2	CP5517-127	BALANCE BAR

SUB ASSEMBLIES		
REF	Pt No.	DESCRIPTION
11	CP5508-11	BRAKE PEDAL SUB ASSY
12	CP5508-12	BALANCE BAR SUB ASSY
13	CP5508-13	CLUTCH PEDAL SUB ASSY
20	CP5508-20	RATIO ADJUSTER

KITS

REF	Pt No.	DESCRIPTION	REF	DESCRIPTION	QTY
14	CP5508-14	CLUTCH CYLINDER PIVOT KIT	A	BOLT M6	1
			B	SS SLEEVE	1
			C	M6 NUT	1
15	CP5508-15	FOOTPAD KIT	A	FOOT PAD	1
			B	COUNTERSUNK BOLT	4
16	CP5508-16	CLUTCH PEDAL PIVOT KIT	A	BOLT M6	1
			B	M6 NUT	1
			C	SPACER	2
17	CP5508-17	CLUTCH CLEVIS KIT	A	CLEVIS	1
			B	PTFE BEARING	2
			C	PIVOT PIN	1
			D	WASHER	2
			E	RETAINING CLIP	1
18	CP5508-18	CLUTCH STOP KIT	A	BOLT	1
			B	NUT	1
19	CP5508-19	BRAKE PEDAL PIVOT KIT	A	M10 BOLT	1
			B	M10 NUT	1
			C	SPACER	2
21	CP5508-21	RATIO ADJUSTER	A	PUSHROD EXTENSION	2
			B	ROD END	2
			C	NUT	2
			D	NUT	2
22	CP5508-22	BRAKE PEDAL RETURN KIT	A	SPRING	1
			B	BOLT	1
23	CP5517-32	BOOT KIT	A	CLUTCH BOOT	1
			B	BRAKE BOOT	1
			C	SCREW	4
			D	BOOT PLATE	2
			E	BRAKE BOOT WITH HOLE	1
24	CP5517-30	BALANCE BAR EXTRAS KIT	A	GRUB SCREW	4
			B	SPACER	2
			C	CIRCLIP	2
			D	SLEEVE	2
25	CP5508-25	BALANCE BARSPARES KIT	-	CIRCLIP	2
			-	NEEDLE ROLLER BEARING	2
			-	TRUNNION	1
26	CP5508-26	BALANCE BAR BOLT KIT	A	BOLT	2
			B	NUT	2

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SCALE 1:1 SHEET 3 OF 3

DRAWN Chris Arrowsmith

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UNDERSLUNG PUSH TYPE
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