

A0 INSTALLATION DRAWING

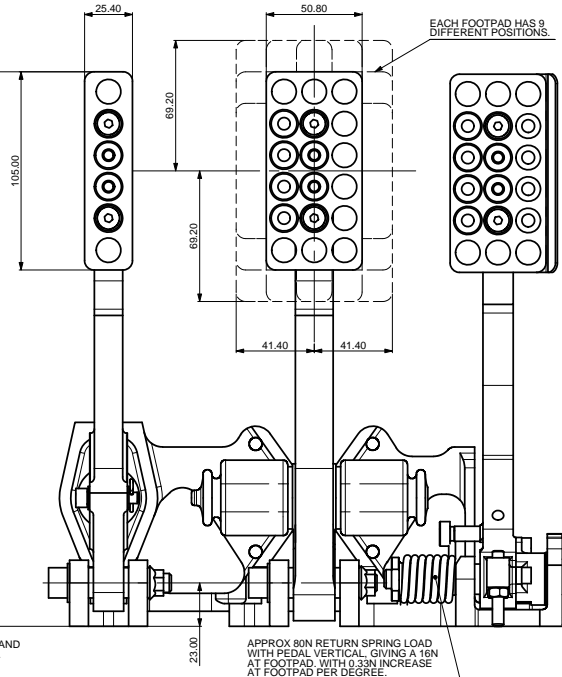
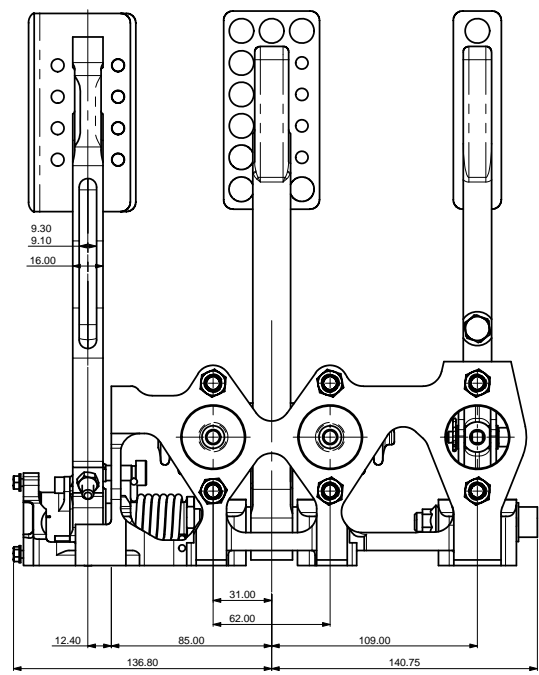
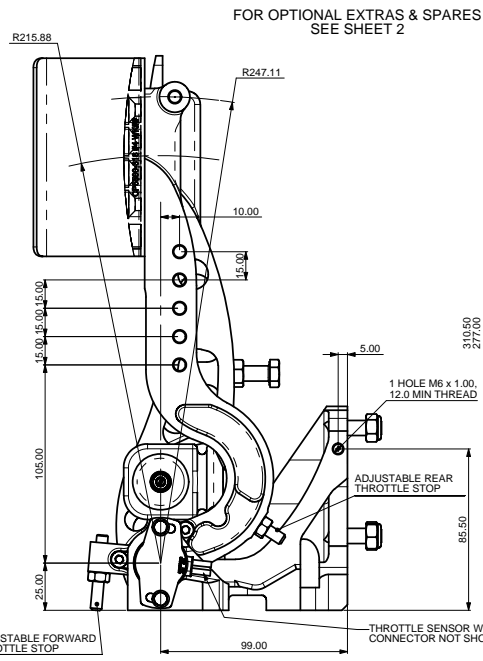
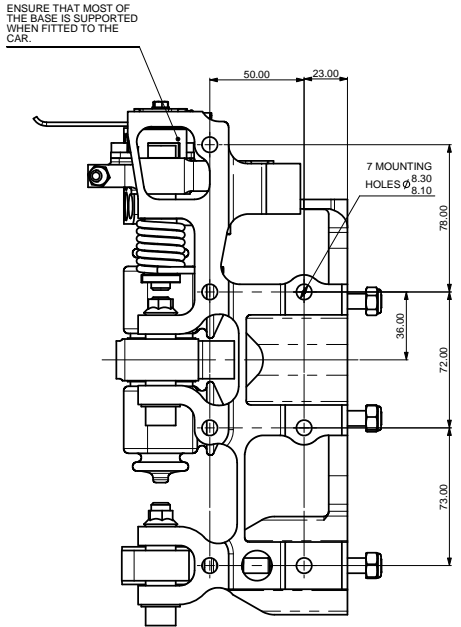
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GENERAL DESCRIPTION
THIS PEDAL BOX IS A GENERIC RACING PEDAL BOX DESIGN, DESIGNED FOR COMFORT AND CONTROL. THIS UPDATED PEDAL BOX HAS A NEW OPTIMISED MACHINED FROM BILLET BASEPLATE AND PEDALS. THE THROTTLE HAS BEEN UPDATED TO ADD ADDITIONAL FEATURES TO AID CONNECTION TO BELL CRANKS AND CABLES.

- FEATURES**
- OPTIMISED, LIGHTWEIGHT, MACHINED FROM BILLET BASE PLATE.
 - OPTIMISED, LIGHTWEIGHT CLUTCH AND BRAKE PEDAL, WITH IMPROVED TWIST DISPLACEMENT.
 - NEW THROTTLE PEDAL WITH ADDITIONAL FEATURES.
 - ADJUSTABLE RATIO PEDALS.
 - ALL THREADS ARE METRIC, EXCEPT THOSE MENTIONED BELOW.
 - Ø10 BALANCE BAR
 - ADJUSTABLE STOPS ON CLUTCH AND THROTTLE PEDALS.
 - PEDAL BOX WEIGHT IS 2.8 Kg
BALANCE BAR ADJUSTER CABLE WEIGHT 236 g
(CP2623 MASTER CYLINDERS APPROX 0.31Kg EACH)
 - CABLE ADJUSTER INCLUDED.
 - ALL PEDALS HAVE BALL BEARING PIVOTS.
 - OPTIONAL ROTARY HALL EFFECT SENSOR (WITH PLUG) ON THROTTLE, SEE SHEET 2 FOR DETAILS

PART NUMBERS	CLEVIS THREADS		THROTTLE SENSOR	
	METRIC M8x1.25	IMPERIAL 5/16" UNF	INCLUDED	NOT INCLUDED
CP5500-605MTS	✓	✗	✓	✗
CP5500-605M	✓	✗	✗	✓
CP5500-605UTS	✗	✓	✓	✗
CP5500-605U	✗	✓	✗	✓

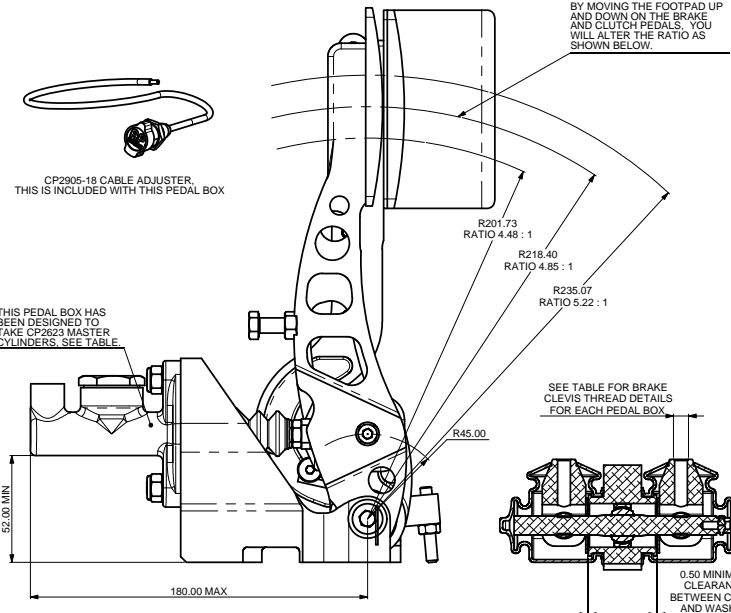
BORE SIZE	BRAKE PEDAL	CLUTCH PEDAL
Ø14.0mm (0.551")	CP2623-88PRM088	CP2623-88PRM088
Ø15.0mm (0.591")	CP2623-89PRM088	CP2623-89PRM088
Ø15.9mm (0.625") 5/8"	CP2623-90PRM088	CP2623-90PRM088
Ø16.8mm (0.661")	CP2623-905PRM088	CP2623-905PRM088
Ø17.8mm (0.700")	CP2623-91PRM088	CP2623-91PRM088
Ø19.1mm (0.750") 3/4"	CP2623-92PRM088	CP2623-92PRM088
Ø20.6mm (0.842") 13/16"	CP2623-93PRM088	CP2623-93PRM088
Ø22.2mm (0.875") 7/8"	CP2623-94PRM088	CP2623-94PRM088
Ø23.8mm (0.937") 15/16"	CP2623-95PRM088	CP2623-95PRM088
Ø25.4mm (1.000")	CP2623-96PRM088	CP2623-96PRM088

THIS TABLE SHOWS THE RECOMMENDED PUSHROD LENGTHS FOR CYLINDERS IN THIS BOX.

IF YOU ARE ORDERING THE CP5500-505UNF, THEN MAKE SURE YOU ORDER YOUR CYLINDERS WITH THE 'FR' EXTENSION AND NOT THE 'PRM', eg CP2623-91PR088.

CP2623 CYLINDERS HAVE IMPERIAL THREADS ON THE INLET AND OUTLET. FOR METRIC THREADS ORDER CP5623 VERSIONS INSTEAD.

CYLINDERS WITH LONGER PUSHRODS CAN BE CUT DOWN.



Alterations

#	Date & No.	Particulars	By	Check
1	18/01/2013	FIRST ISSUE		
2	22/01/2013	CLUTCH FOOTPAD MODIFIED. B6637		
3	18/02/2013	BOMS UPDATED ON SHEET 3. B6637		
4	09/04/2013	SENSOR PIN NUMBERS ADDED. B6637		
5	03/02/16	SHEET 3: ITEM 25 - CP5500-373 WAS CP5500-331 ITEM 31 - CP5500-374 WAS CP5500-336 IMPERIAL CLUTCH CLEVIS 41 WAS 44 IMPERIAL BRAKE CLEVIS 42 WAS 45 BOLT AND BUSH NOTE ADDED		
6	14/09/16	SHEET 1: BRAKE CLEVIS THREAD NOTE UPDATED SHEET 3: ITEM 25: CP5500-379 WAS 373		

SCALE 1:1 SHEET 1 OF 3

DRAWN: Chris Arowsmith

APPROVED:

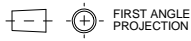
DERIVED FROM:

TITLE: GENERIC FLOOR MTG PEDAL BOX

DRG NO: CP5500-605CD

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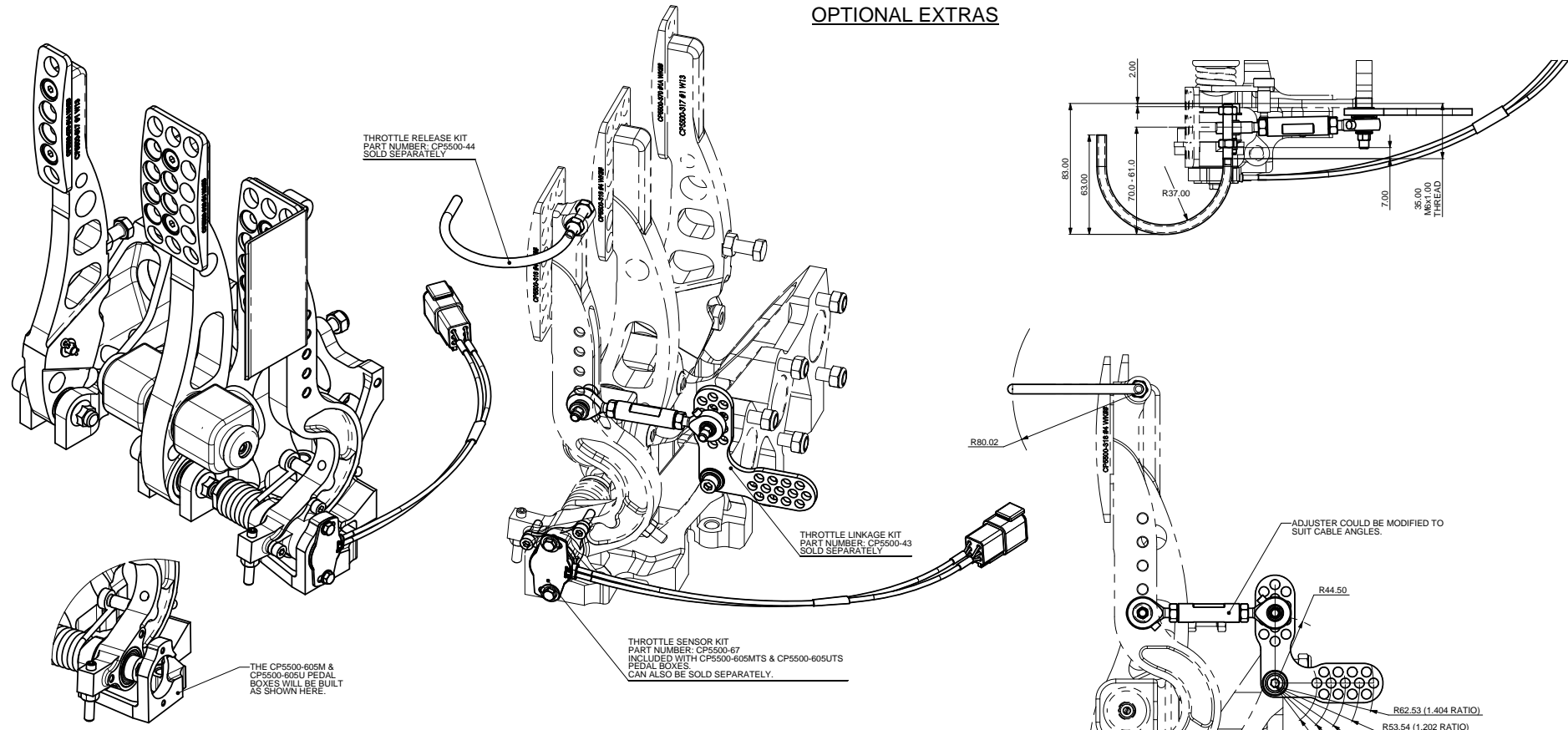
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OPTIONAL EXTRAS



THROTTLE SENSOR DETAIL NON CONTACT ROTARY HALL EFFECT SENSOR WITH DUAL REDUNDANCY

THE THROTTLE SENSOR HAS A MEASURING RANGE OF 30°. THIS ANGLE WAS SELECTED TO PROVIDE A HIGH RESOLUTION OF DATA FROM THE SENSOR, AND BECAUSE THE TYPICAL TRAVEL OF A THROTTLE PEDAL IN THIS RANGE IS WITHIN THIS, THE PEDAL WITH ITS STOPS ARE CAPABLE OF A MUCH BIGGER RANGE (20% FORWARD FROM VERTICAL, 27.5 BACKWARDS FROM VERTICAL), THE PEDAL BOX AS STANDARD WILL BE SET AT 4° FORWARD, TO 24° BACK. IF YOU NEED A DIFFERENT RANGE, ALTER THE FORWARD STOP, ALTER THE BACK STOP (KEEP THE RANGE TO WITHIN 30°), THEN ROTATE THE SENSOR TO AN ANGLE WHERE IS CAN READ YOUR NEW RANGE.

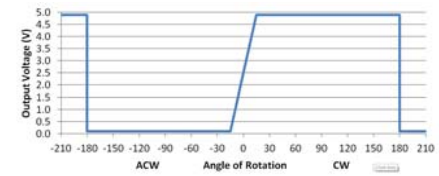
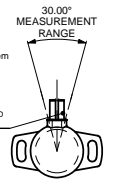
Electrical
 Measurement range 30° (BOTH CHANNELS)
 Supply voltage 5-40.5 Vdc
 Over voltage protection up to 10 Vdc (-40 to 60°C)
 Maximum supply current <12.5 mA each independent supply (<25mA total)
 Reverse polarity protection Yes
 Short circuit protection: Output to GND Yes
 Power-on settlement time Yes
 Resolution 0.025% of measurement range (12 Bit)
 Non-linearity <±0.4 %
 Temperature coefficient <±30 ppm/°C

* Non-linearity is measured using the Least-Squares method on a computerised calibration system

Analog Output
 Voltage output range Vdc Ratimetric output voltage - 2 to 98% of V_s over measurement
 Monotonic range Vdc 0.05 (1%) and 4.95 (99%) nominal
 Load resistance 10k minimum (resistive to GND)
 Output noise <1 mVrms
 Input/output delay <2 mS
 Output direction Channel 1 - CW, Channel 2 - ACW

Mechanical
 Mechanical angle 360°, continuous
 Maximum rotational speed 3600°/sec
 Weight TBA g
 Mounting Use 2 x M4 socket head cap screws and M4 washer - maximum tightening torque 2Nm.
 Phasing When magnet ident mark is facing toward the sensor and cable exit, output is at mid travel. The sensor housing allows for a 10° adjustment via the mounting flange slots.

Environmental
 Protection class IP68 (to 2m depth for 2 hours) and IP69K
 Life This product has no contacting parts.
 Dither life Contactless - no degradation due to shaft dither
 Operational temperature # -40°C to +140°C and +170°C for 72 hours
 Storage temperature -55°C to +140°C
 Vibration BS EN 60068-2-64:1995 Sec 8.4 (31.4g rms) 20 to 2000Hz Random
 Shock 3m drop onto concrete and 2500g
 EMC immunity level BS EN 61000-4-3:1999, to 100V/m, 80MHz to 1GHz and 1.4GHz to 2.7GHz (2004/108/EC)



THE GRAPH DATA IS TBC

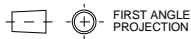
Alterations		Date & No.	Particulars	Drawn	Checked
0	01/02		SEE SHEET 1 FOR ISSUE INFORMATION.		

SCALE 1:1	SHEET 2 OF 3
DRAWN	Chris Arowsmith
APPROVED	
DERIVED FROM	
TITLE GENERIC FLOOR MTG PEDAL BOX	
DRG NO.	CP5500-605CD

ONLY THE BRAKE PEDAL HAS BEEN TESTED WITH THIS ITEM FITTED. IT SHOULD NOT BE FITTED TO THE CLUTCH OR THROTTLE PEDALS.

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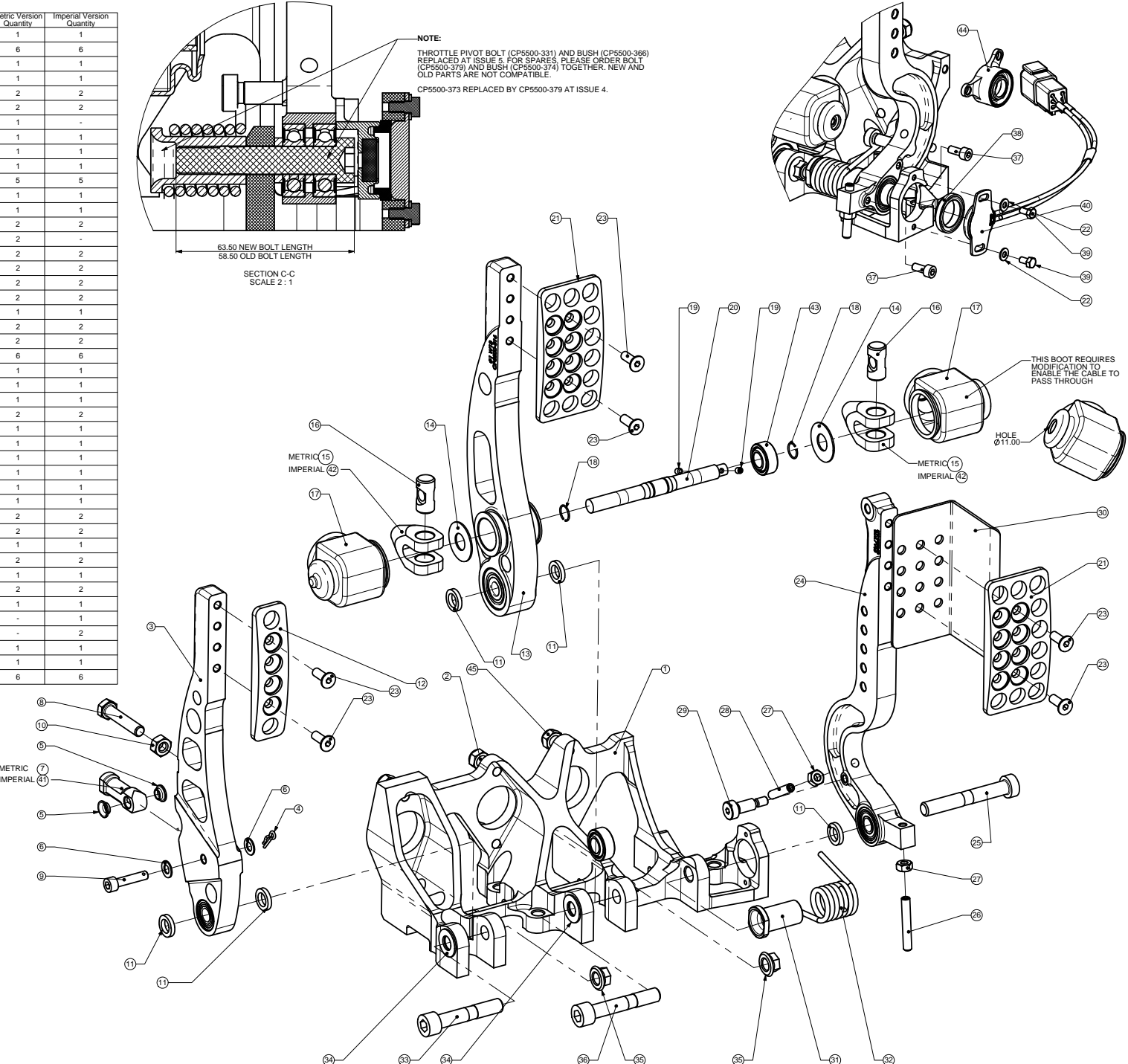
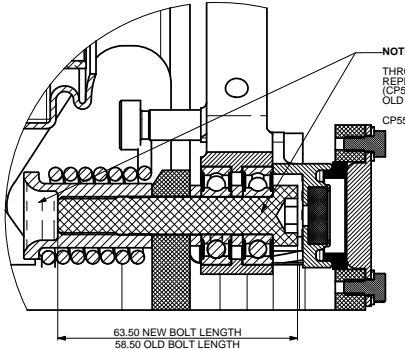


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SPARES LIST

ITEM NO.	PART NUMBER	DESCRIPTION	Metric Version Quantity	Imperial Version Quantity
1	CP5500-360	BASE PLATE	1	1
2	CP5500-133	STUD M8x1.25, 28.0 LONG	6	6
3	CP5500-41	CLUTCH PEDAL SUB-ASSY	1	1
4	CP5119-134	RETAINING R CLIP	1	1
5	CP5507-131	GLYD RING BEARING	2	2
6	CP2494-1305	WASHER	2	2
7	CP5500-314	METRIC CLUTCH CLEVIS	1	-
8	CP5500-134	M8 x 1.50 HEX BOLT	1	1
9	CP5500-323	CLUTCH CLEVIS PIVOT RETAINER	1	1
10	ME21002	M8 LOCK NUT	1	1
11	CP5518-127	SPACER	5	5
12	CP5500-370	FOOTPAD	1	1
13	CP5500-40	BRAKE PEDAL SUB-ASSY	1	1
14	CP5500-124	WASHER	2	2
15	CP5500-312	CLEVIS - METRIC	2	-
16	CP5500-108	BARREL NUT	2	2
17	CP5500-150	RUBBER BOOT	2	2
18	CP5500-148	SNAP RING 0.4375"	2	2
19	CP5500-113st	SCREW M4 x 5	2	2
20	CP5500-105	BALANCE BAR	1	1
21	CP5500-318	FOOTPAD	2	2
22	CP7000-170	WASHER	2	2
23	CP4350-106	M6 x 14 SCREW, COUNTERSUNK	6	6
24	CP5500-46	THROTTLE PEDAL SUB-ASSY	1	1
25	CP5500-379	M10x57x1.50 BOLT	1	1
26	CP5500-338	M6 SCREW x 40, FLAT GRUB	1	1
27	ME21001	M6 x 1.00 NUT	2	2
28	CP5500-324	M6 SCREW x 30, FLAT GRUB	1	1
29	CP7033-111	M6 SCREW, Ø8 SHOULDER	1	1
30	CP5500-329	THROTTLE GUARD	1	1
31	CP5500-374	SPRING SUPPORT BUSH	1	1
32	CP5500-365	TORSION SPRING	1	1
33	CP5000-425	M10x58 CALIPER M10 BOLT	1	1
34	CP5200-150	WASHER	2	2
35	CP5427-101	M10 KAYLOCK NUT	2	2
36	CP5200-173	M10x58 CALIPER M10 BOLT	1	1
37	CP4612-109	M5 x 0.80 CAP HEAD	2	2
38	CP5500-364	DEBRIS SLEEVE	1	1
39	CP4028-114	M4 x 0.7 HEX HEAD SCREW, 8.00 LONG	2	2
40	CP5500-369	ROTARY SENSOR	1	1
41	CP5500-336	UNF CLUTCH CLEVIS	-	1
42	CP5500-345	CLEVIS - UNF	-	2
43	CP5500-339	SPHERICAL BEARING	1	1
44	CP5500-363	MAGNET HOLDER	1	1
45	CP5500-346	M8 NYLOC NUT	6	6



Alterations		Date & No.	Particulars	Drawn	Checked
1			SEE SHEET 1 FOR ISSUE INFORMATION.		

SCALE 1:1	SHEET 3 OF 3
DRAWN	Chris Arnsworth
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GENERIC FLOOR MTG	
PEDAL BOX	
DRG NO.	CP5500-605CD