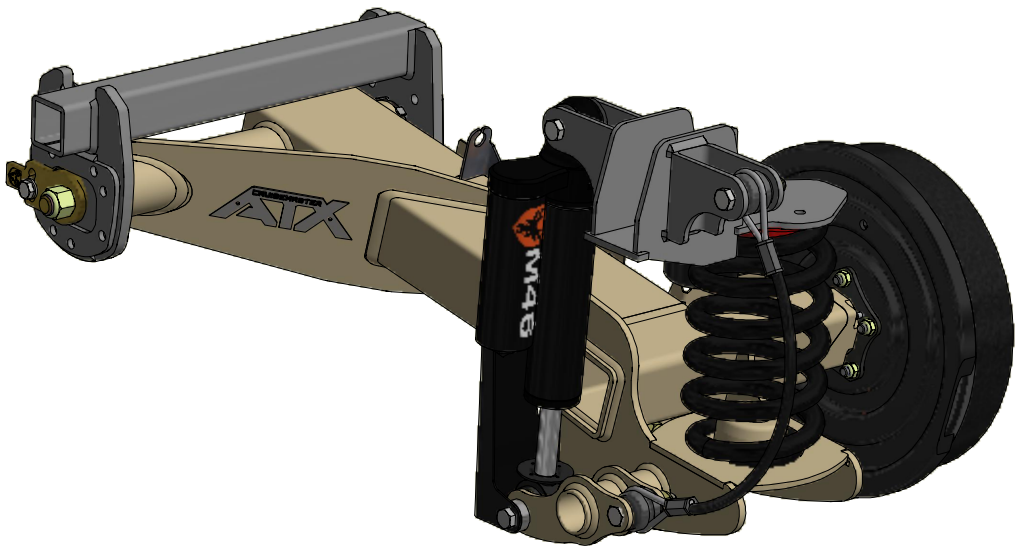
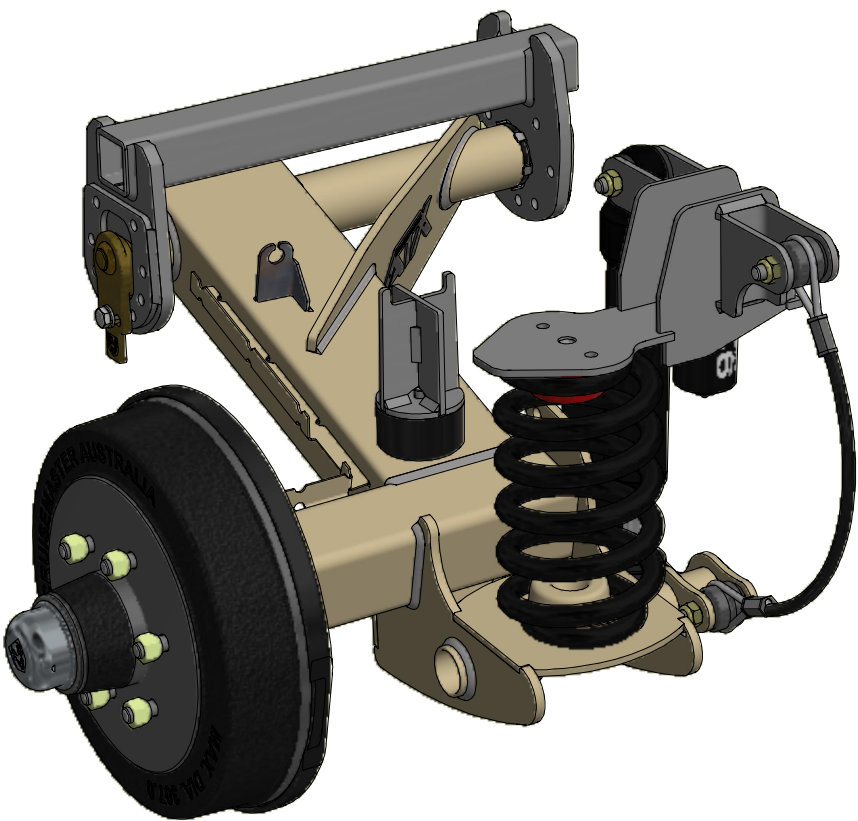




CHASSIS PREPARATION AND SUSPENSION INSTALLATION GUIDE

- 2. CHASSIS TO FACE
- 3. GENERAL LAYOUT
- 4. WELDING
- 5. ASSEMBLY
- 6. ALIGNMENT
- 7. PARTS LIST
- 8. KIT CONFIGURATIONS
- 9. M60 SHOCK INSTRUCTIONS
- 8. M60 SHOCK ADJUSTMENT



REV	DESCRIPTION	ECN	NAME	DATE
12	Update for 3T/ATXU + M60 shock absorbers	2096	TM	20/12/2023
11	Added note for shock absorber crossmember size	2096	LL	27/02/2023
10	Added full length hinge welding spec, clarified C-F measurement	1775	AB	24/10/2019
9	33S-707 was 33S-8019	1766	AB	7/08/2019

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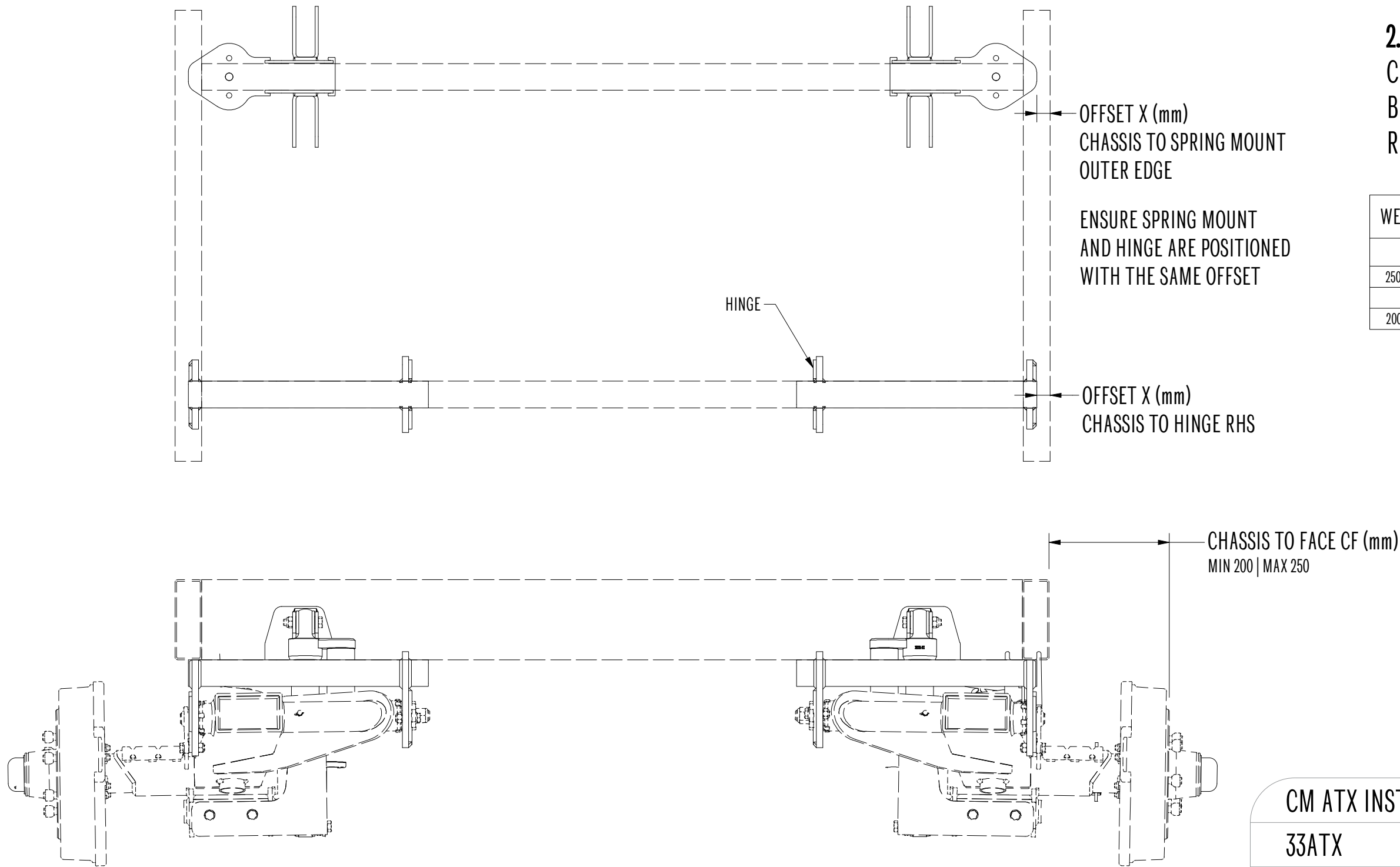


2 - CHASSIS TO FACE

NOTES
2.1 FOR A CHASSIS TO FACE CF SMALLER THAN 250mm THE SPRING MOUNT AND HINGE NEED TO BE OFFSET X (mm) FROM THE OUTSIDE OF THE CHASSIS

2.2 USE THE TABLE BELOW TO CALCULATE THE OFFSET X (mm) BASED ON CHASSIS TO FACE CF REQUIRED

WELD ON POSITION FROM OUTER CHASSIS WALL (mm)		
CF	X (ELECTRIC) = 250 - CF	X (DISC) = 250 - CF
250 MAX C/F	0	7
225	25	32
200 MIN C/F	50	57



CM ATX INSTALLATION GUIDE
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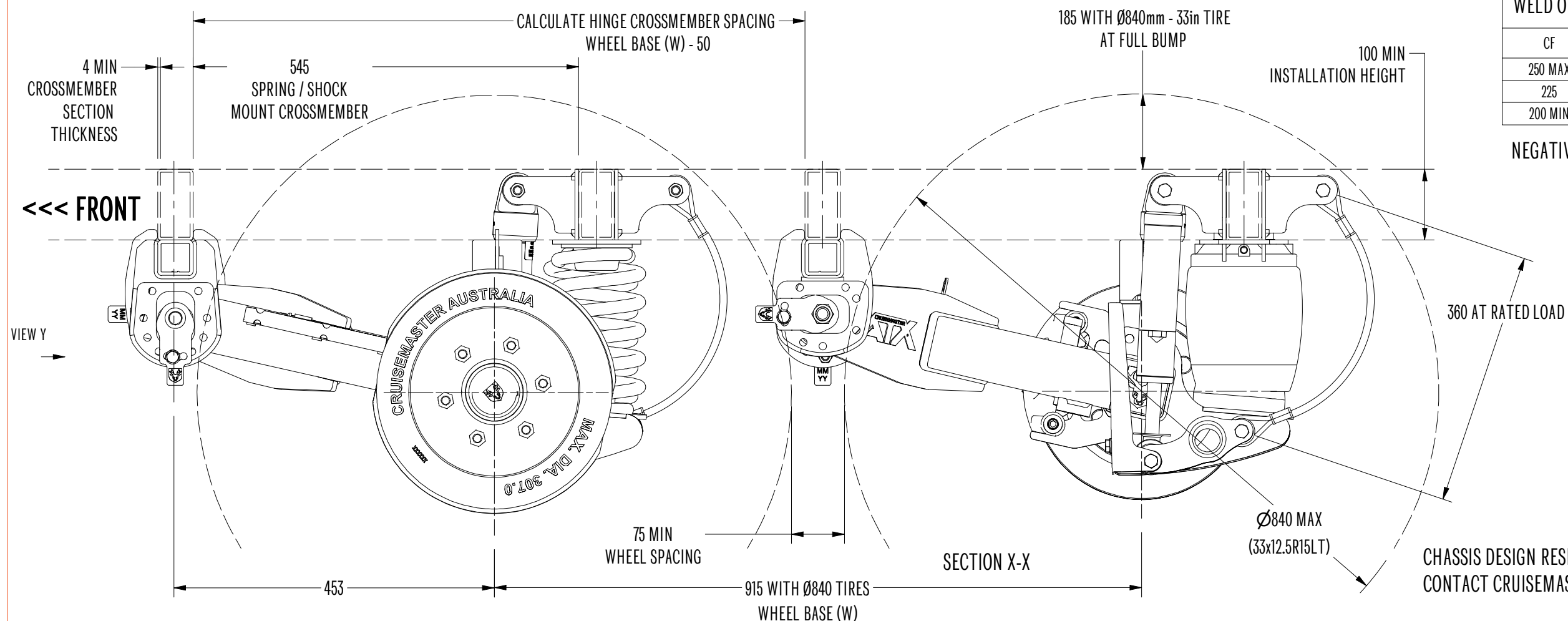
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3 - GENERAL LAYOUT



WELD ON POSITION FROM OUTER CHASSIS WALL (mm)

CF	X (ELECTRIC) = 250 - CF	X (DISC) = 250 - CF
250 MAX	0	7
225	25	32
200 MIN	50	57

NEGATIVE WHEEL OFFSET NOT ALLOWED

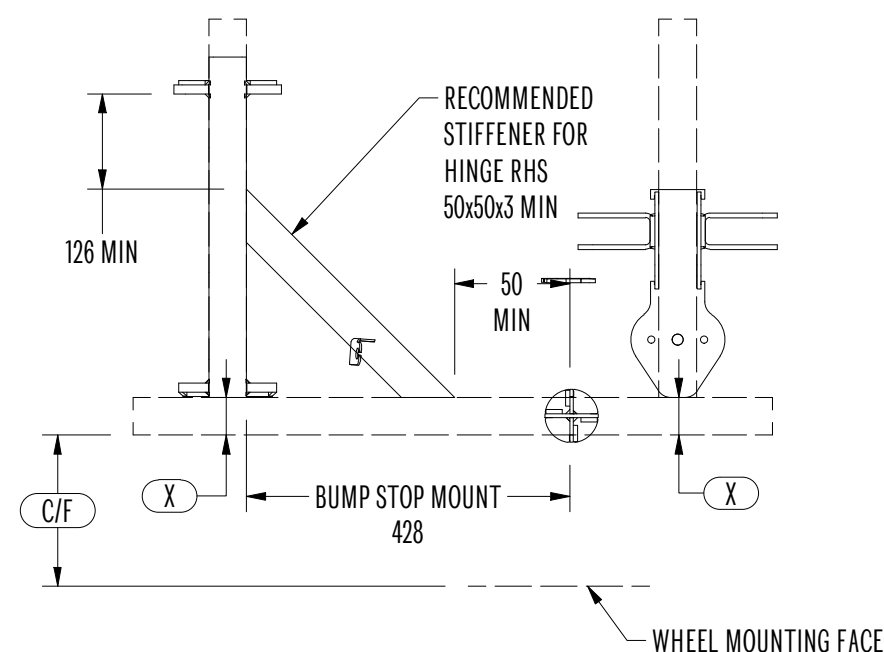
CHASSIS DESIGN RESPONSIBILITY LIES WITH MANUFACTURER.
CONTACT CRUISEMASTER ENGINEERING FOR DESIGN ADVICE

NOTE FOR TANDEM AXLES

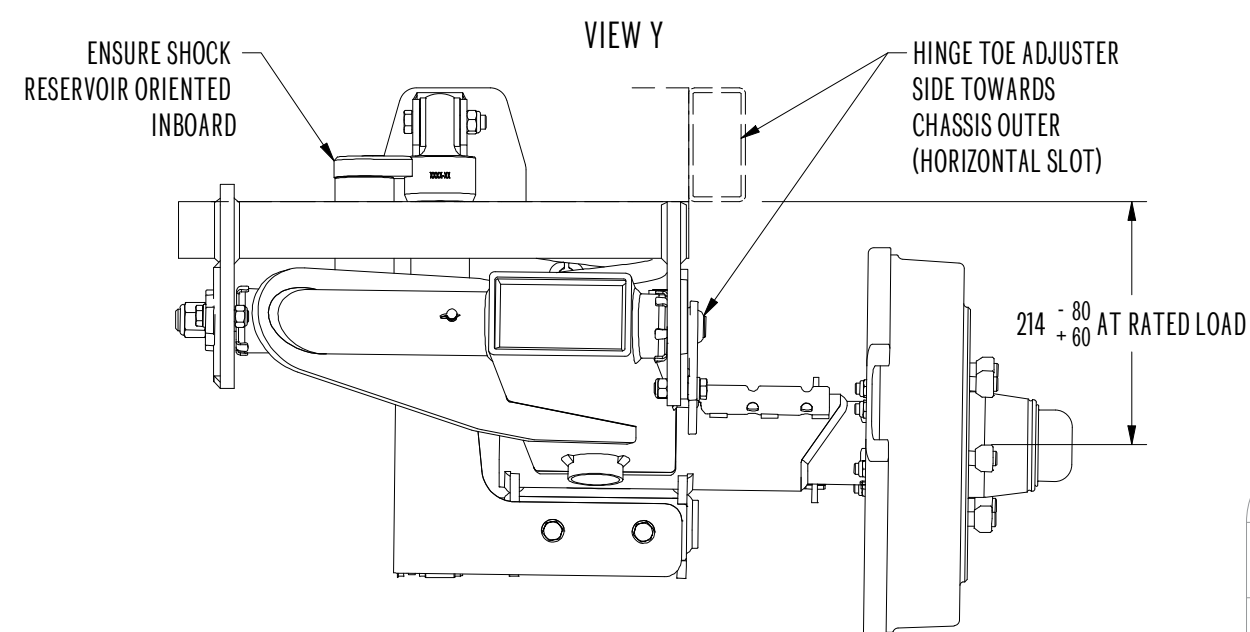
THIS IS A CLOSE COUPLED, NON-LOAD SHARING SUSPENSION. ENSURE THAT THE LOAD ON THE AXLE GROUP DOES NOT EXCEED THE REQUIREMENTS OF THE NATIONAL CODE OF PRACTICE (VSB 1 - BUILDING SMALL TRAILERS)

LUBRICATION

GREASE BORE AND FLANGE OF POLYURETHANE BUSHES DURING INSTALLATION AND REGULARLY DURING SERVICE USING AUTOMOTIVE BEARING GREASE. INJECT THROUGH GREASE NIPPLE UNTIL GREASE STARTS COMING OUT BETWEEN HINGE AND BUSH.



DETAIL Z



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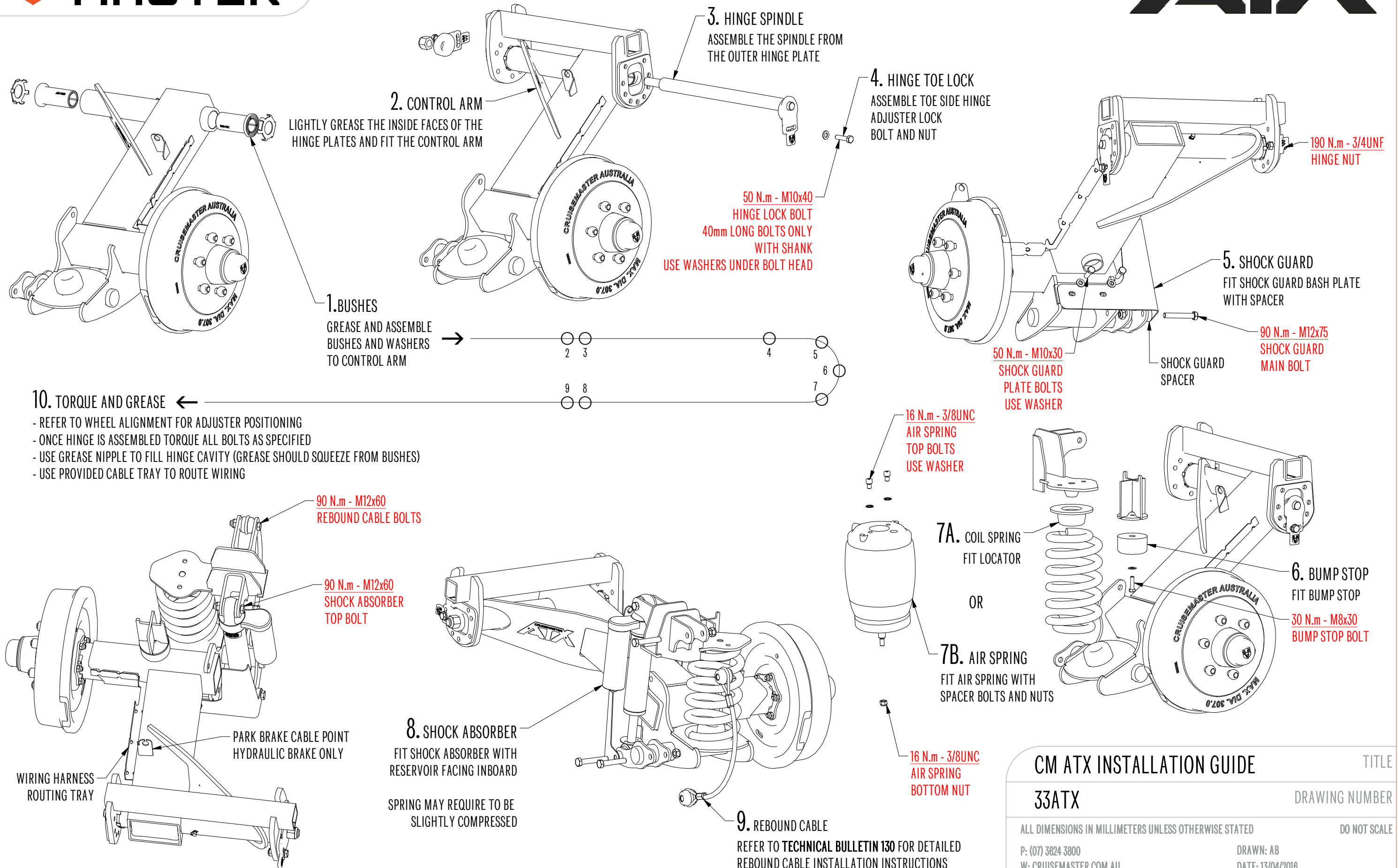
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5 - ASSEMBLY



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6 - ALIGNMENT

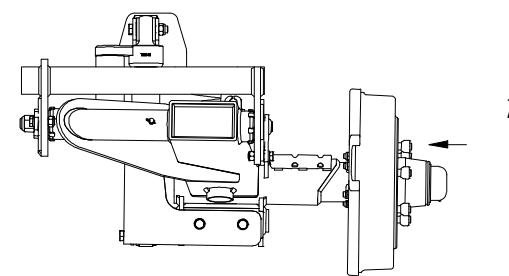
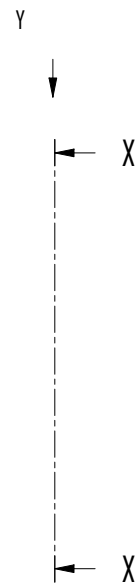
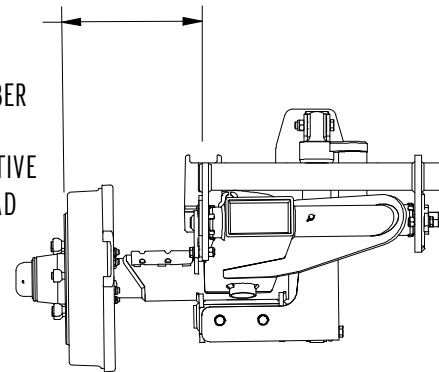
VISIT cruisemaster.com.au FOR ADDITIONAL INFORMATION
SEE CRUISEMASTER CAMBER TOW IN ADJUSTER (CIS 20)



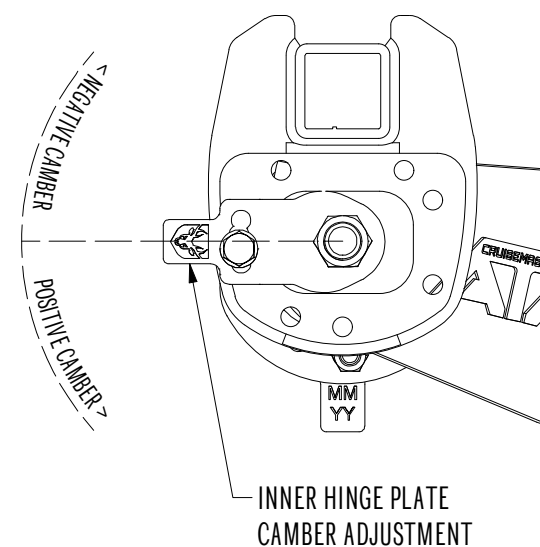
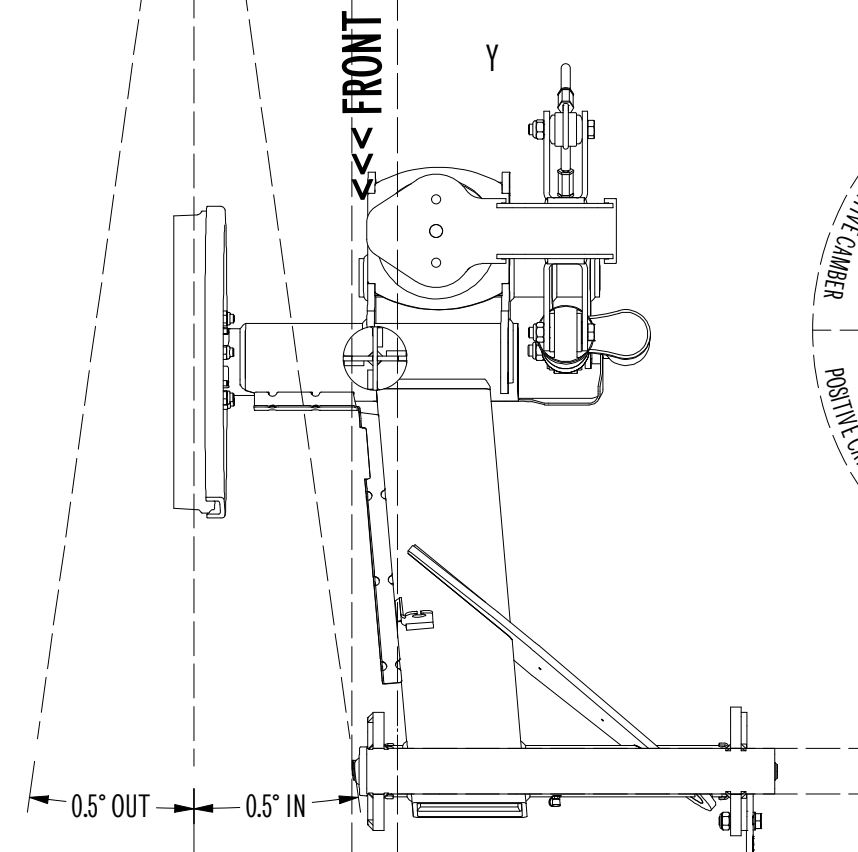
CAMBER ADJUSTMENT

THE SUSPENSION HAS A DEGREE OF POSITIVE CAMBER BUILT IN TO ENSURE THE WHEELS ARE ALIGNED CORRECTLY UNDER LOAD. WHEELS ARE RECOMMENDED TO HAVE 0° TO 0.5° NEGATIVE CAMBER AT RATED LOAD.

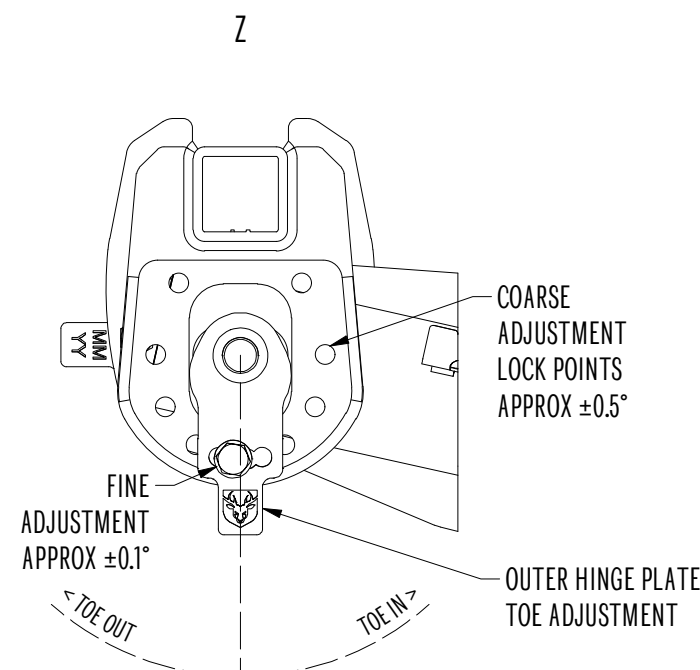
1°
BUILT IN
POSITIVE CAMBER
0° TO 0.5° NEGATIVE
AT RATED LOAD



X1
GENERAL TOE SETTINGS
0° TO 0.2° FOR FRONT AXLES (X1 - X2 = 0mm to 2mm)
0° FOR REAR AXLES (X1 = X2)



SECTION X-X



X2
MEASURE DISTANCE FROM CHASSIS
TO TYRE FACE USING A STRAIGHT EDGE
USE DIFFERENCE TO DETERMINE TOE
X1 - X2

WHEEL ALIGNMENT PROCEDURE

1. ENSURE THE TRAILER IS FULLY LOADED AND ON A FLAT SURFACE, MOVE THE TRAILER BACKWARDS AND FORWARDS TO ELIMINATE ANY TWIST IN THE WHEELS.

MEASUREMENT

2. PLACE A STRAIGHT EDGE ACROSS THE WHEEL, EDGE OF RIM OR DRUM FACE THEN MEASURE THE DISTANCE FROM THE STRAIGHT EDGE TO THE CHASSIS RAIL. (WHEELS ON A SINGLE OR TANDEM FRONT AXLE SHOULD BE ADJUSTED TO HAVE 2MM TOE-IN. WHEELS ON TANDEM REAR AXLE SHOULD MEASURE PARALLEL FROM THE CHASSIS RAIL.)

3. FOR CAMBER ADJUSTMENT IT IS RECOMMENDED TO USE A DIGITAL SPIRIT LEVEL TO MEASURE ACROSS THE WHEEL RIM OR DRUM FACE.

ADJUSTMENT

4. LIFT THE VEHICLE TO UNLOAD THE SUSPENSION. DO NOT CLIMB UNDER A VEHICLE WHICH IS ONLY SUPPORTED BY JACKS, ENSURE PROPER VEHICLE STANDS ARE USED.

5. LOOSEN THE HINGE NUT AND REMOVE THE ADJUSTER LOCKING BOLTS.

6. TURN THE ADJUSTER IN THE DIRECTION REQUIRED AND ALIGN WITH THE NEAREST BOLT HOLES. USE BOTH COARSE AND FINE ADJUSTMENTS TO FIND THE OPTIMAL POSITION AND USE LOCKING BOLTS TO HOLD THE ADJUSTER IN PLACE.

6. LOWER THE VEHICLE TO FULLY LOAD THE SUSPENSION AND MEASURE THE ALIGNMENT AGAIN TO CHECK ADJUSTMENT IS SATISFACTORY.

7. IF THE NECCESARY ALIGNMENT HAS NOT BE ACHIEVED, REPEAT FROM STEP 4

8. WHEN ADJUSTMENT IS COMPLETED, TORQUE ADJUSTMENT LOCKING BOLTS AND HINGE NUT. (SEE ASSEMBLY SHEET FOR TORQUES)

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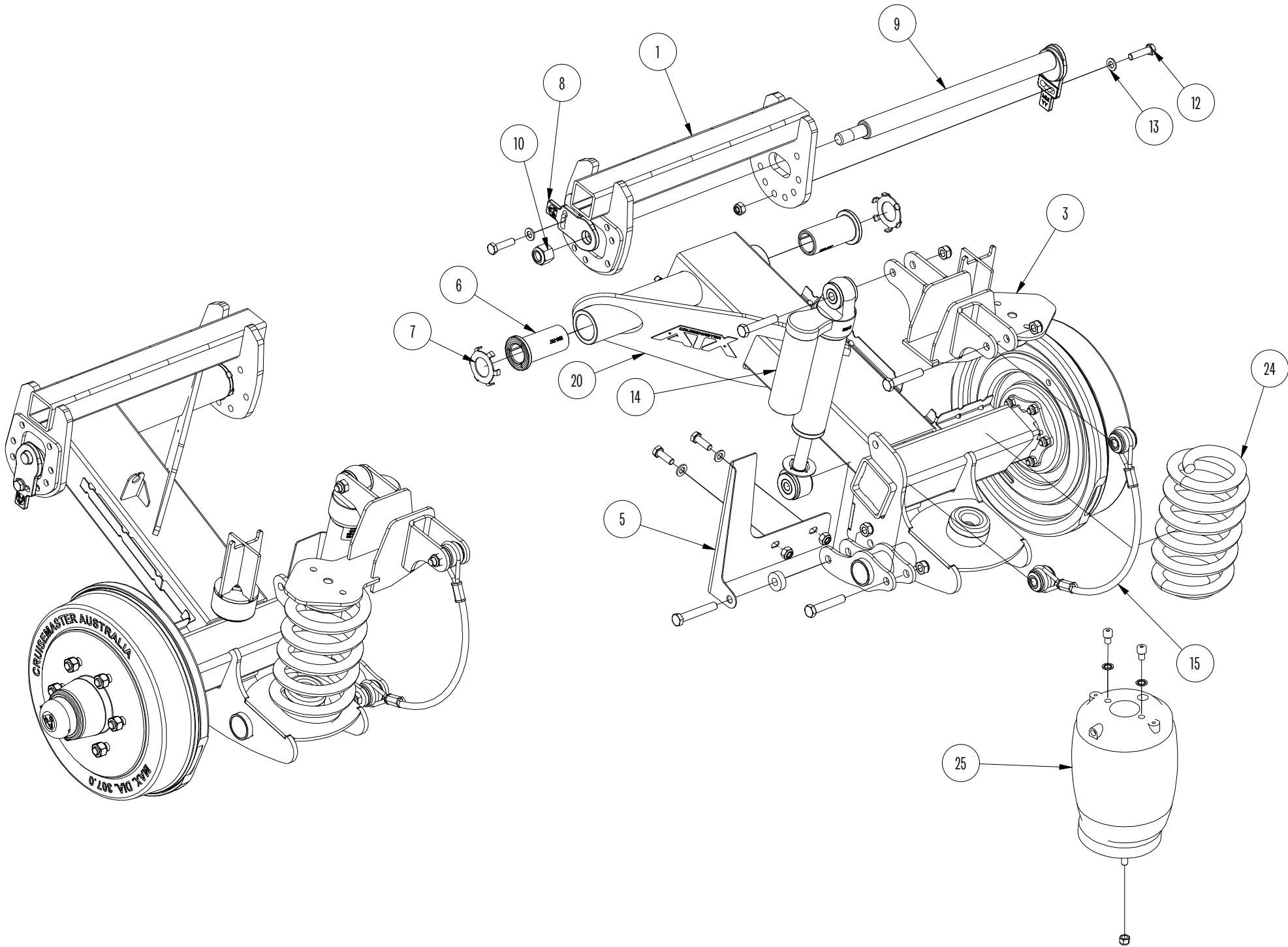
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7 - PARTS LIST



ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	33S-8200	ATX HINGE
2	2	33S-8410	ATX BUMP STOP MOUNT
3	2	33S-8400	ATX SPRING MOUNT
4	2	33S-8056	ATX BADGE
5	1	33C 022	CM ATX SHOCK GUARD KIT
6	4	33S-707	CM HINGE BUSH D
7	4	33S-8042	HINGE SLIDE WASHER
8	2	33S-8310	ATX LOCKABLE ADJUSTER
9	2	33S-8300	ATX HINGE SPINDLE
10	2	60-N-3/4-UNF-NYL	NUT 3/4 UNF NYLOC
11	4	60-N-M10NYL	NUT ZINC NYLON INSERT M10
12	4	60-B-M10x40	BOLT HEX 8.8 M10x40 Z/P
13	4	60-WF-M10	WASHER FLAT M10 Z/P
14	1	33C 018	M46 BLACK 46mm SINGLE SHOCK KIT
15	1	33C 017	CM ATX RB STRAP KIT
16	1	33C 021	CM ATX BUMP STOP KIT
17	2	60-M-GN-COV	GREASE NIPPLE DUST COVER
18	2	60-M-GN-M6	GREASE NIPPLE M6
19	1	33S 8816L	ATX 1365 VC EL LEFT
20	1	33S 8816R	ATX 1365 VC EL RIGHT
21	0	33S-220	PLASTIC END CAP 75
22	1	19-3069-DEXT	BR/KIT 12EL DEXTER
23	2	03-12VC-93-LC6-1/2	H/DRUM 12" VC 93 FITTED LC6 1/2
24	1	33ATX-CC	CM ATX COIL SPRING KIT
25	1	33ATX-AK	CM ATX AIR SPRING KIT



7.1. M60 ADJUSTABLE SHOCK ABSORBER UPGRADE KIT

REFER TO PAGES 9-10 FOR INSTALL INSTRUCTIONS AND ADJUSTMENT METHOD FOR M60 ADJUSTABLE SHOCK ABSORBER UPGRADE KIT.

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8 - KIT CONFIGURATIONS

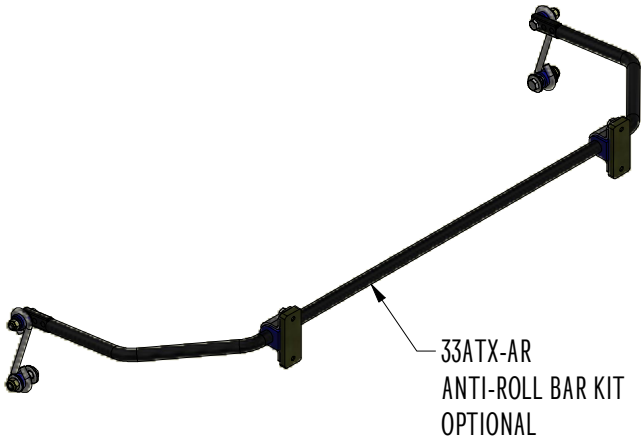


PART NUMBER BUILD GUIDE

CONFIGURE SUSPENSION KITS FOR SIMPLER ORDERING

(A) SPRING			
AXLES	RATING - ATM (kg)	(A)	SPRING
SINGLE	2200	CS22	33SC-474A
SINGLE	2600	CS26	33SC-530A
SINGLE	2800	CS28	33SC-590A
SINGLE	2800	AS28	33SA-AB0044-V
TANDEM	3700	CT37	33SC-390A
TANDEM	4500	CT45	33SC-474A
TANDEM	4500	AT45	33SA-AB0044-V

(B) HUB SPIGOT		
OPTION	WHEEL SPIGOT (mm)	(B)
DRUM	93	VC93
DRUM	106	VC106
DRUM	110	VC110
HUB	102	DVC102
HUB	110	DVC110



33ATX - □ □ □ □ - □ □ □ □ □ □ - □ - □ - HS - S6000

A

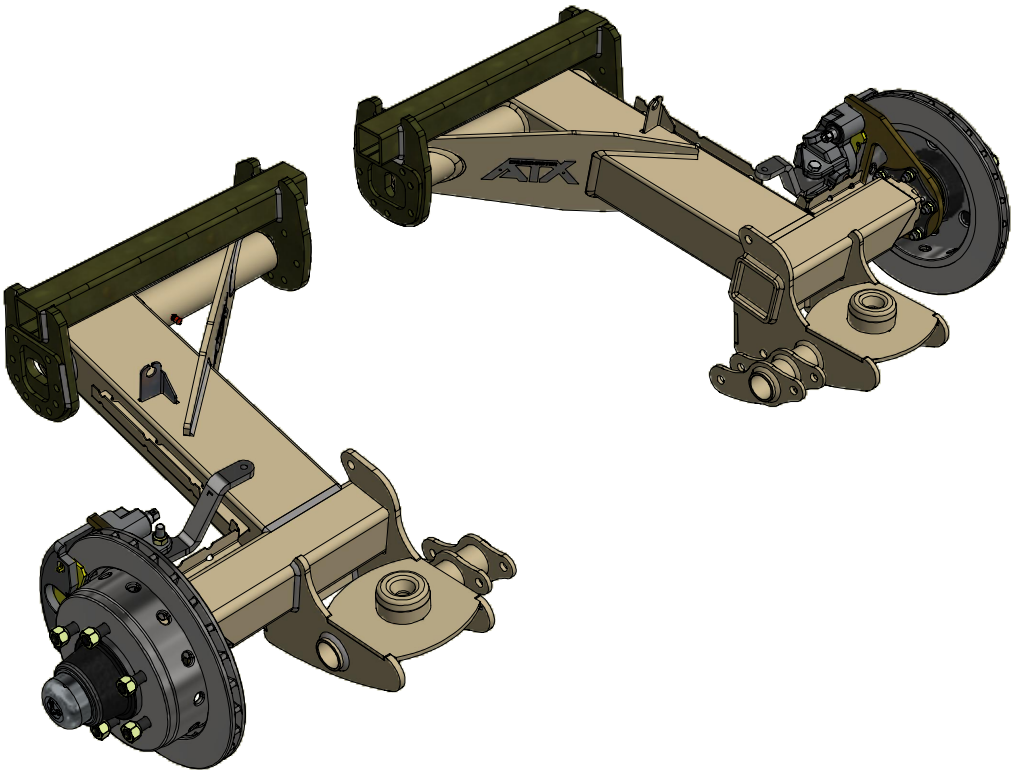
B

E

F

(D) FINISH . COLOR	
(D)	OPTION
U	UNPAINTED
P	PREMIUM POWDERCOATING

(D) BRAKE . STUD PATTERN	
(D)	BRAKE
D	ELECTRIC
H	HYDRAULIC



EXAMPLE

33ATX-CS22-VC110-P.DS-D.LC6.HLF-HS-S6000

- SINGLE AXLE
- 2200kg COIL SPRINGS
- VC BEARING
- PREMIUM POWDERCOATING
- ELECTRIC BRAKES
- LANDCRUISER 6 STUD PATTERN - 1/2in STUDS
- MONOTUBE SHOCKS

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9 - M60 SHOCK UPGRADE

1.EXISTING HARDWARE

IF FITTED, REMOVE THE EXISTING SHOCK ABSORBERS AND STONE GUARDS BY REMOVING THE TOP AND BOTTOM SHOCK BOLTS AS WELL AS THE TWO BOLTS ATTACHING THE STONE GUARD TO THE ARM.

2.TOP BOLT

FIT THE M60 SHOCK ABSORBER, STARTING WITH THE TOP M12X60MM BOLT

3. BOTTOM BOLT

FIT THE M12X90MM LOWER MOUNTING BOLT. FASTENING THE SHOCK GUARD, SPACER AND SHOCK ABSORBER AS PER DIAGRAM.

THIS WILL REQUIRE SOME COMPRESSION OF THE SHOCK ABSORBER TO ALIGN THE FITMENT BOLT. SETTING THE SHOCK ABSORBER TO "SOFT" WILL ASSIST IN THIS MANUAL COMPRESSION.

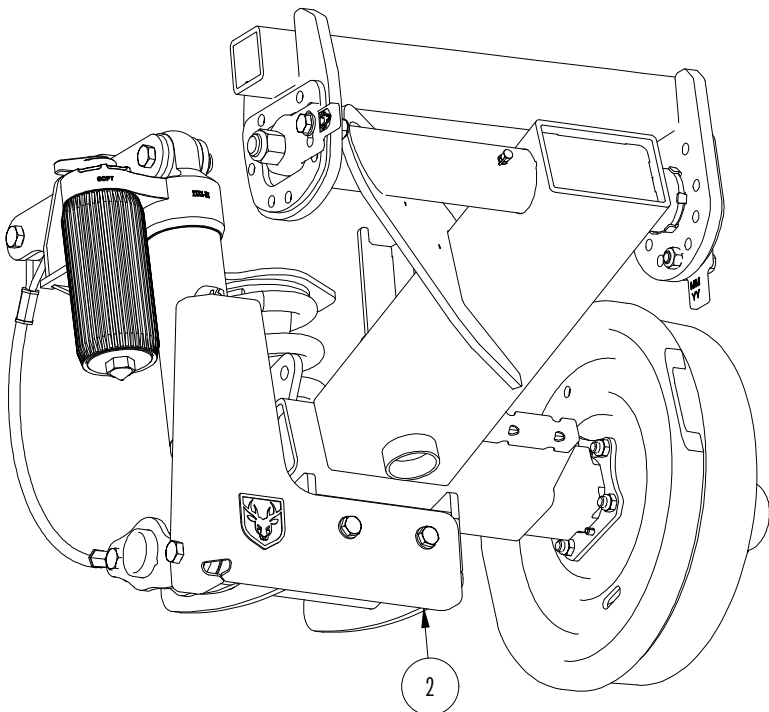
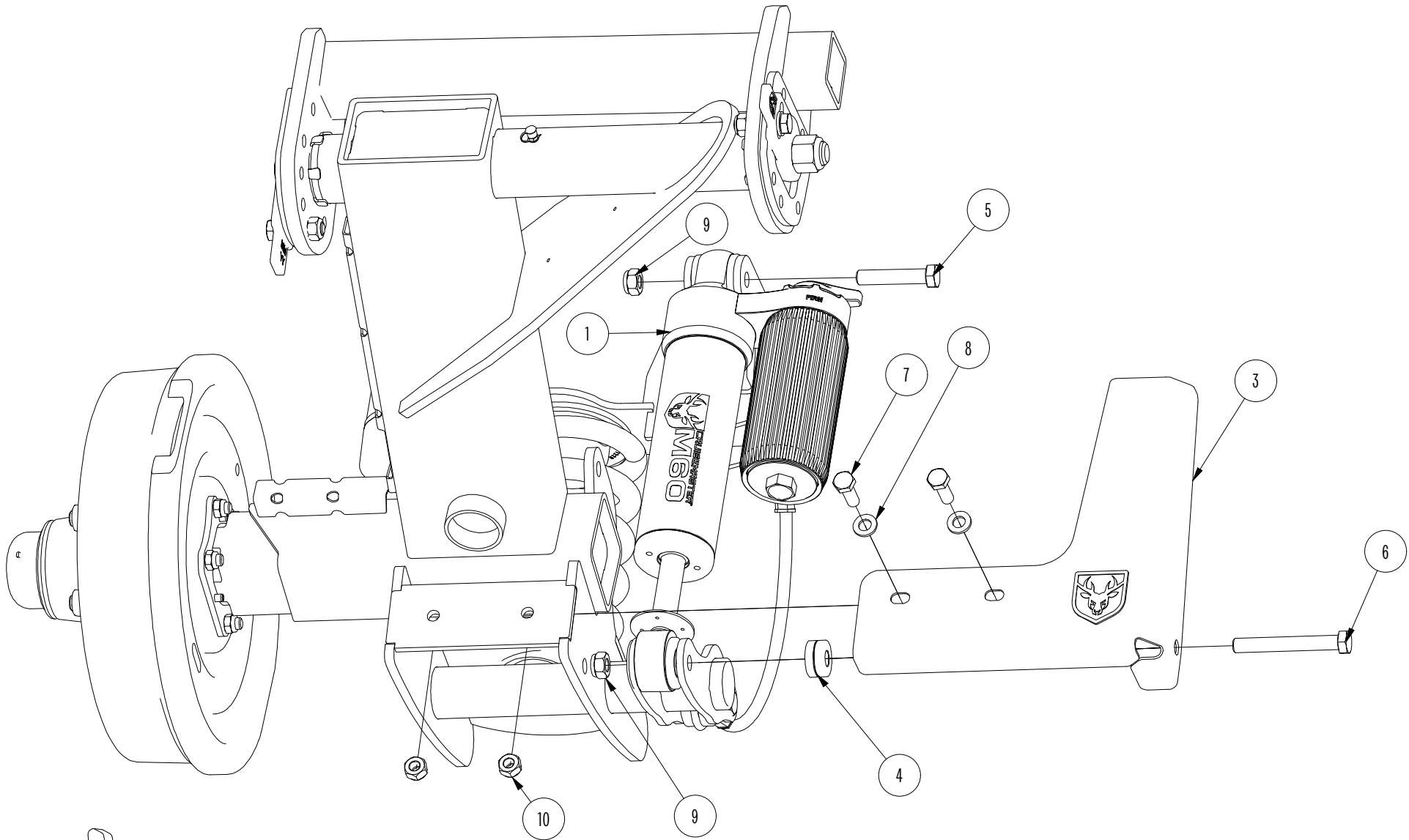
4. FRONT BOLTS

FIT THE REMAINING TWO M10X30MM SHOCK GUARD BOLTS THAT ATTACH THE GUARD TO THE ATX ARM.

5.TORQUE HARDWARE

TORQUE ALL BOLTS AS PER THE SPECIFIED TORQUE REQUIREMENTS (PAGE 5).

BOLTS USED AND THEIR REQUIRED TORQUE SETTINGS MAY CHANGE OVER TIME. PLEASE REFER TO THE TORQUE SETTINGS LISTED ON THE SUPPLIED BOLT BAG FOR THE DEFINITIVE REQUIREMENT.



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	33C 034	M60 ADJUSTABLE 60mm SINGLE SHOCK KIT
2	1	33S 8075L	SHOCK GUARD UNLEASHED LEFT
3	1	33S 8075R	SHOCK GUARD UNLEASHED RIGHT
4	2	33S 8079	BASH PLATE SPACER EXTENDED
5	2	60-B-M12x60	BOLT HEX 8.8 M12x60 Z/P
6	2	60-B-M12x90	BOLT HEX 8.8 M10x90 Z/P
7	4	60-B-M10x30	BOLT HEX 8.8 M10x30 Z/P
8	8	60-WF-M10	WASHER FLAT M10 Z/P
9	8	60-N-M12NYL	NYLOC NUT M12 Z/P
10	10	60-N-M10NYL	NYLOC NUT M10 Z/P

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10 - M60 SHOCK ADJUSTMENT



FIRM SETTING

THE FIRM SETTING IS DESIGNED FOR SEALED ROAD USE, PROVIDING AN INCREASED LEVEL OF DAMPING COMPARED TO THE M46 SHOCK ABSORBER. THIS REDUCES BODY ROLL AND IMPROVES THE STABILITY AND CONTROL OF THE TRAILER DURING CORNERING AT HIGH SPEED.

NEUTRAL SETTING

WHEN TRAVELING AT HIGH SPEED ON UNSEALED ROADS, THE NEUTRAL SETTING IS RECOMMENDED, PROVIDING A DAMPING LEVEL EQUIVALENT TO THE M46 SHOCK ABSORBER.

THIS SETTING GIVES A COMBINATION OF HIGH SPEED HANDLING, STABILITY AND BUMP ABSORPTION ABILITY THAT HAS BEEN PROVEN ON THOUSANDS OF ATX SUSPENSION SYSTEMS.

SOFT SETTING

THE SOFT SETTING IS DESIGNED FOR LOW TO MEDIUM SPEED OFF ROAD USE, PROVIDING A REDUCED LEVEL OF DAMPING COMPARED TO THE M46 SHOCK ABSORBER.

IT ALLOWS THE SUSPENSION TO ABSORB BIGGER IMPACTS WITHOUT EXCESSIVELY ROCKING THE TRAILER, WHICH IMPROVES OFF ROAD STABILITY. THE DECREASED DAMPING REDUCES THE FORCE AND VIBRATION LEVELS TRANSMITTED THROUGH TO THE TRAILER FROM THE ROAD OR TRACK SURFACE, REDUCING THE STRAIN ON THE TRAILER AND ITS CONTENTS.

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