

ARE BILLET
PARTS LEGAL
IN
AUSTRALIAN
SXS CLASSES ?

- ELIGIBILITY
- COMPONENTS
COMMONLY USED



MOTORSPORT AUSTRALIA SPECIFIC REQUIREMENTS (SR)

LEGAL WORDING SR 11.1

MOTORSPORT AUSTRALIA – 2024 SR 11.7

SXS (Side X Side)

11. SXS (SIDE X SIDE)

11.1 GENERAL

- (a) Each vehicle must comply with these regulations, applicable Motorsport Australia Technical Appendix and the Off Road (GR).
- (b) Each vehicle must remain in standard specification as produced by the manufacturer unless a freedom is provided for below in these regulations.
- (c) The onus is on the competitor to provide evidence of eligibility, which may include supporting information from the relevant brochure or official documents issued by the vehicle manufacturer/importer/distributor.

2024 CAN-AM MAVERICK X3 X_{RC} TURBO RR

OEM Specification

- **NO BILLET PARTS FROM FACTORY**
 - *Cast Components*
 - *Thin Material*
 - *Metal Fatigue*
 - *Constant Failures*



Hybrid White & Legion Red

PACKAGE HIGHLIGHTS

- 200 hp. turbo charged Rotax[®] powerplant with intercooler
- 72.8 in. wide with over 55cm of suspension travel
- Smart-Lok[®] front differential
- FOX[®] 2.5/3.0 PODIUM RC2[®] shocks with bypass
- Belt monitoring system
- 850 W magneto
- 7.6 in. digital display with keypad
- X-package graphics/seats
- 4-point harnesses with shoulder pads
- Can-Am LED signature lights
- 15 in. aluminum beadlock wheels
- 32 in. Maxxis Liberty[®] tyres
- Front bumper, half-doors, aluminium roof, intrusion bar
- Front tow hook
- 4,500-lb (2,041 kg) winch with synthetic rope
- HMWPE differential and under bumper skid plates
- HMWPE front and rear suspension arm
- UHMWPE rock sliders

ENGINE	TURBO RR
Type	200 hp. Rotax [®] ACE (Advanced Combustion Efficiency) 900 cc turbocharged triple-cylinder engine, liquid-cooled with integrated intercooler and high-performance air filter
Fuel Delivery System	Intelligent Throttle Control (iTC™) with Electronic Fuel Injection (EFI)
Transmission	pDrive primary and Quick Response System X (QRS-X) CVT with high airflow L/H/N/R/P
Drive Train	Lockable front differential with exclusive Smart-Lok [®] technology. True 4 modes traction system: 2WD/4WD with front diff. lock/4WD ROCK/4WD TRAIL
Power Steering	High-torque Tri-Mode Dynamic Power Steering (DPS™)

SUSPENSIONS	
Front Suspension	Trophy truck inspired arched double A-arm with sway bar/22 in. (55.9 cm) travel
Front Shocks	FOX [®] 2.5 PODIUM RC2 [®] Piggyback with bypass, dual speed compression, and rebound adjustments
Rear Suspension	4-link Torsional Trailing-arm X (TTX) with sway bar and arched lower links/24 in. (61 cm) travel
Rear Shocks	FOX [®] 3.0 PODIUM RC2 [®] remote reservoir with bypass, dual speed compression and rebound adjustments

TYRES & WHEELS	
Front Tyres	Maxxis Liberty [®] 32 x 10 x 15 in.
Rear Tyres	Maxxis Liberty [®] 32 x 10 x 15 in.
Wheels	15 in. cast-aluminum beadlock

BRAKES	
Front	Dual 262 mm disc brakes with hydraulic twin-piston calipers
Rear	Dual 249 mm disc brakes with hydraulic twin-piston calipers

DIMENSIONS & CAPACITIES	
Estimated Dry Weight	1,843 lb (836 kg)
Chassis/Cage	Dual-phase 980 steel
L x W x H	134.5 x 72.8 x 68.5 in. (341.6 x 184.9 x 174 cm)
Wheelbase	102 in. (259.1 cm)
Ground Clearance	16 in. (40.6 cm)
Rack Capacity	200 lb (91 kg) with LinQ [®] Quick-Attach
Storage Capacity	Total: 2.5 gal (9.4 L)
Fuel Capacity	10.5 gal (40 L)
Person Capacity	2

FEATURES	
Gauge	7.6 in. wide digital display with keypad
Instrumentation	DC outlet (10-A)
Anti-theft System	RF Digitally Encoded Security System (D.E.S.S.™) with Start/Stop button
Lighting	LED headlight LED signature lights LED tail lights
Winch	4,500 lb (2,041 kg) winch with synthetic rope
Magneto	850 W
Protection	Front bumper Half-doors Aluminium roof Intrusion bar 4-point harnesses with shoulder pads UHMWPE rock sliders HMWPE skid plates: Full heavy-duty with differential/under bumper/front and rear suspension arm Rear tow hook Trailing Arm protector Lower A-arm protector

WARRANTY	
Factory Warranty	3-year unlimited km powertrain & Rotax [®] engine warranty and 1-year warranty & unlimited km on the rest of the unit

MOTORSPORT AUSTRALIA 2024 SR 11.7

MOTORSPORT AUSTRALIA SPECIFIC REQUIREMENTS (SR)





LEGAL WORDING SR 11.7

11.7 GEARBOX & TRANSMISSION

- (a) **The original transmission / gearbox and differential/s must be used.**
- (b) The vehicle is required to have a reverse gear fitted.
- (c) Transmission / gearbox mounts are free as is their number.
- (d) A transmission /gearbox oil radiator or cooler including pump and ancillary items may be added.
- (e) The clutch is free.
- (f) Each drive shaft is free.

OEM SPECIFICATIONS

- NO BILLET PARTS FROM FACTORY
 - HUNDREDS OF BILLET COMPONENTS USED BY AUSTRALIAN SXS COMPETITORS
 - WITHOUT BILLET UPGRADES - TOO MANY DNF's
- MANY EXAMPLES BELOW

MAVERICK X3		X ds TURBO RR***	X rs TURBO RR*** WITH SMART SHOXX**	X rc TURBO RR ***	MAX X rs TURBO RR*** WITH SMART-SHOXX**	
						
COLOUR OPTIONS		Triple Black	Fiery Red & Hyper Silver	Hybrid White & Legion Red	Fiery Red & Hyper Silver	
ENGINES	Type	200 hp, Rotax® ACE (Advanced Combustion Efficiency) 900 cc turbocharged triple-cylinder engine, liquid-cooled with integrated intercooler and high-performance air filter				
	Fuel Delivery System	Intelligent Throttle Control (ITC™) with Electronic Fuel Injection (EFI)				
	Transmission	pDrive primary and Quick Response System X (QRS-X) CVT with high airflow, L/H/N/R/P				
	Drive Train	Lockable front differential with exclusive Smart-Lok* technology. True 4 modes traction system: 2WD/4WD with front diff. lock/4WD TRAIL ACTIV/4WD TRAIL.	Lockable front differential with exclusive Smart-Lok* technology. True 4 modes traction system: 2WD/4WD with front diff. lock/4WD ROCK/4WD TRAIL.	Lockable front differential with exclusive Smart-Lok* technology. True 4 modes traction system: 2WD/4WD with front diff. lock/4WD TRAIL ACTIV/4WD TRAIL.	Lockable front differential with exclusive Smart-Lok* technology. True 4 modes traction system: 2WD/4WD with front diff. lock/4WD TRAIL ACTIV/4WD TRAIL.	
	Driving Assistance	High torque Tri-Mode Dynamic Power Steering (DPS™)				
SUSPENSIONS	Front Suspension	Double A-arm with sway bar/ 20 in. (50.8 cm) travel	Double A-arm with sway bar/22 in. (55.9 cm) travel/Trophy truck inspired arms	Trophy truck inspired arched double A-arm with sway bar/ 22 in. (55.9 cm) travel	Double A-arm with sway bar/22 in. (55.9 cm) travel/Trophy truck inspired arms	
	Front Shocks	FOX® 2.5 PODIUM RC2! Piggyback with dual speed compression and rebound adjustments	FOX® 2.5 PODIUM! Piggyback with bypass and Smart-Shox** Technology featuring DDA Valve (Dynamic Damping Adjustment)	FOX® 2.5 PODIUM RC2! Piggyback with bypass, dual speed compression and rebound adjustments	FOX® 2.5 PODIUM! Piggyback with bypass and Smart-Shox** Technology featuring DDA Valve (Dynamic Damping Adjustment)	
	Rear Suspension	4-link Torsional Trailing-arm X (TTX) with sway bar/20 in. (50.8 cm) travel	4-link Torsional Trailing-arm X (TTX) with sway bar/24 in. (61 cm) travel	4-link Torsional Trailing-arm X (TTX) with sway bar and arched lower links/24 in. (61 cm) travel	4-link Torsional Trailing-arm X (TTX) with sway bar/22 in. (55.9 cm) travel	
	Rear Shocks	FOX® 2.5 PODIUM RC2! Piggyback with dual speed compression, rebound adjustments and bottom-out control	FOX® 3.0 PODIUM! remote reservoir with bypass and Smart-Shox** Technology featuring DDA Valve (Dynamic Damping Adjustment)	FOX® 3.0 PODIUM RC2! remote reservoir with bypass, dual speed compression and rebound adjustments	FOX® 3.0 PODIUM! remote reservoir with bypass and Smart-Shox** Technology featuring DDA Valve (Dynamic Damping Adjustment)	
TYRES/ WHEELS	Front/Rear Tyres Wheels	Maxxis Carnivore® 30 x 10/10 x 14 in. 14 in. cast-aluminum beadlock	Maxxis Carnivore® 32 x 10/10 x 14 in. 14 in. cast-aluminum beadlock	Maxxis Liberty® 32 x 10/10 x 15 in. 15 in. cast-aluminum beadlock	Maxxis Carnivore® 32 x 10/10 x 14 in. 14 in. cast-aluminum beadlock	
BRAKES	Front	Dual 262 mm disc brakes with hydraulic twin-piston calipers				
	Rear	Dual 248 mm disc brakes with hydraulic twin-piston calipers				
DIMENSIONS/CAPACITIES	Estimated Dry Weight	1,554 lb (704.9 kg)	1,699 lb (770.7 kg)	1,843 lb (836 kg)	1,942 lb (880.9 kg)	
	Chassis/Cage	Dual-phase 980 steel				
	L x W x H	132 x 64 x 65.7 in. (335.3 x 162.5 x 166.9 cm)	132 x 72.7 x 68.5 in. (335.3 x 184.7 x 174 cm)	134.5 x 72.8 x 68.5 in. (341.8 x 184.9 x 174 cm)	165 x 72.7 x 68.5 in. (419.1 x 184.7 x 174 cm)	
	Wheelbase	102 in. (259.1 cm)		135 in. (342.9 cm)		
	Ground Clearance	14 in. (35.6 cm)	16 in. (40.6 cm)			
	Rack Capacity	200 lb (91 kg) with LinQ® Quick-Attach				150 lb (68 kg) with LinQ® Quick-Attach
	Storage Capacity	Total: 2.5 gal (9.4 L)				Total: 3 gal (11.4 L)
	Fuel Capacity	10.5 gal (40 L)				
Person Capacity	2				4	
FEATURES	Gauge	7.6 in. wide digital display with keypad				
	Instrumentation	DC outlet (10-A)				
	Anti-theft System	RF Digitally Encoded Security System (D.E.S.S.™) with Start/Stop button				
	Lighting	LED headlight, LED signature lights, LED tail lights				
	Winch	N/A	4,500 lb (2,041 kg) winch with synthetic rope		N/A	
	Magneto	850 W				
	Protection	Integrated front bumper, quarter doors, full roof, 4-point harnesses with shoulder pads, HMWPE full skid plate, rear tow hook		Front bumper, half doors, aluminum roof, intrusion bar, 4-point harnesses with shoulder pads, UHMWPE rock sliders, HMWPE skidplates: full heavy-duty with differential/under bumper/ front and rear suspension arm, rear tow hook, trailing arm protector, lower A-arm protector		Integrated front bumper, quarter doors, full roof, 4-point harnesses with shoulder pads, HMWPE full skid plate, rear tow hook

“UPGRADE COMPONENTS”

COMMON IN SXS RACING (AUSTRALIA)



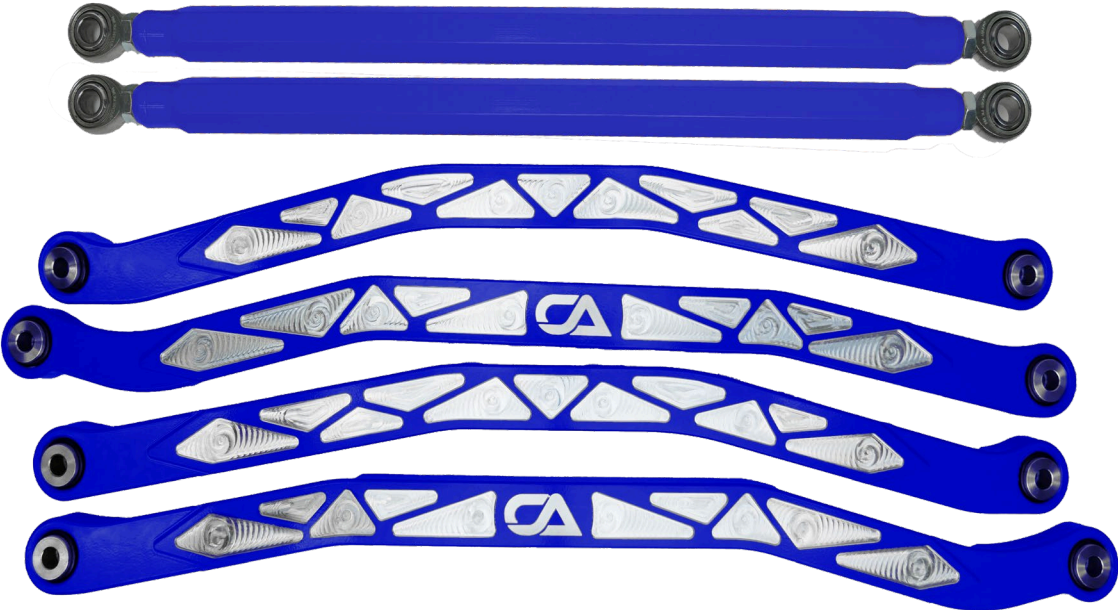
99% MADE IN
USA (CHINA)



BILLET SUSPENSION COMPONENTS



BILLET SUSPENSION ARMS/RODS

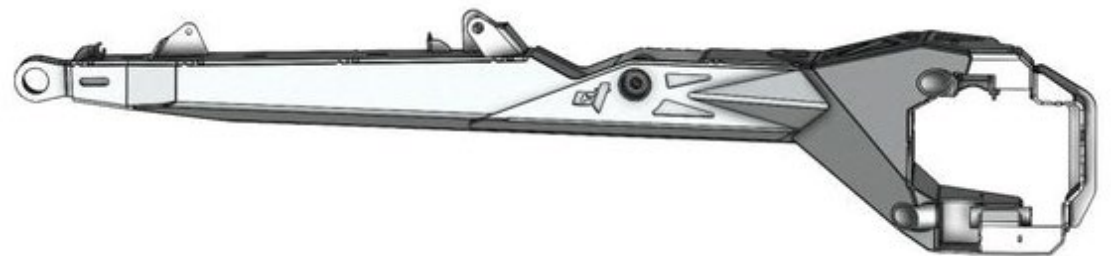


FRONT ARM HEIM JOINT UPGRADES





AFTERMARKET REAR ARMS



**BILLET SHOCK
TOWER
BRACE**





BILLET BALL JOINTS



ETA



**PINION
NEEDLE
BEARING**

***BRONZE BUSH
CONVERSION***





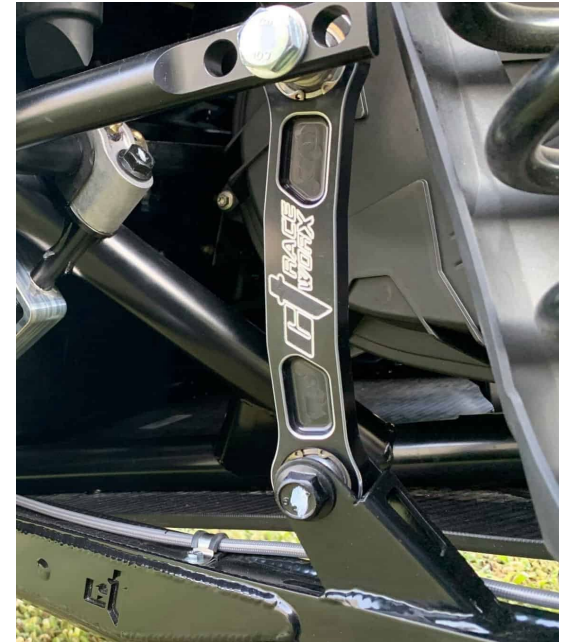
BILLET CVT COMPONENTS



CVT COOLING
MONITORING
ALARMS



**BILLET SWAY
BAR
COMPONENTS**



BILLET SWAY BAR LINKS



**BILLET
STEERING
UPGRADES**



STEERING ROD HEIM CONVERSION





STEERING ROD HEIM CONVERSIONS

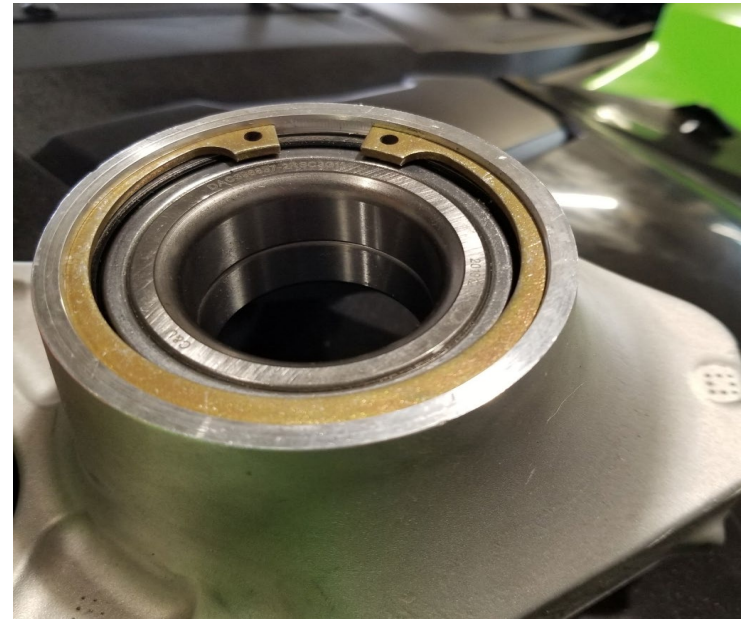


STEERING QUICKENER



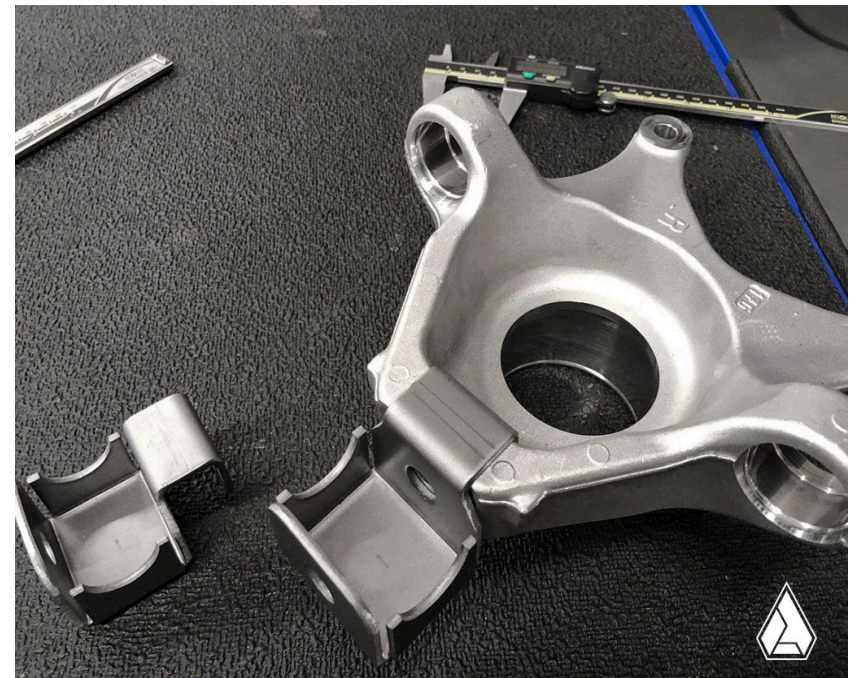


WHEEL BEARING UPGRADE KITS





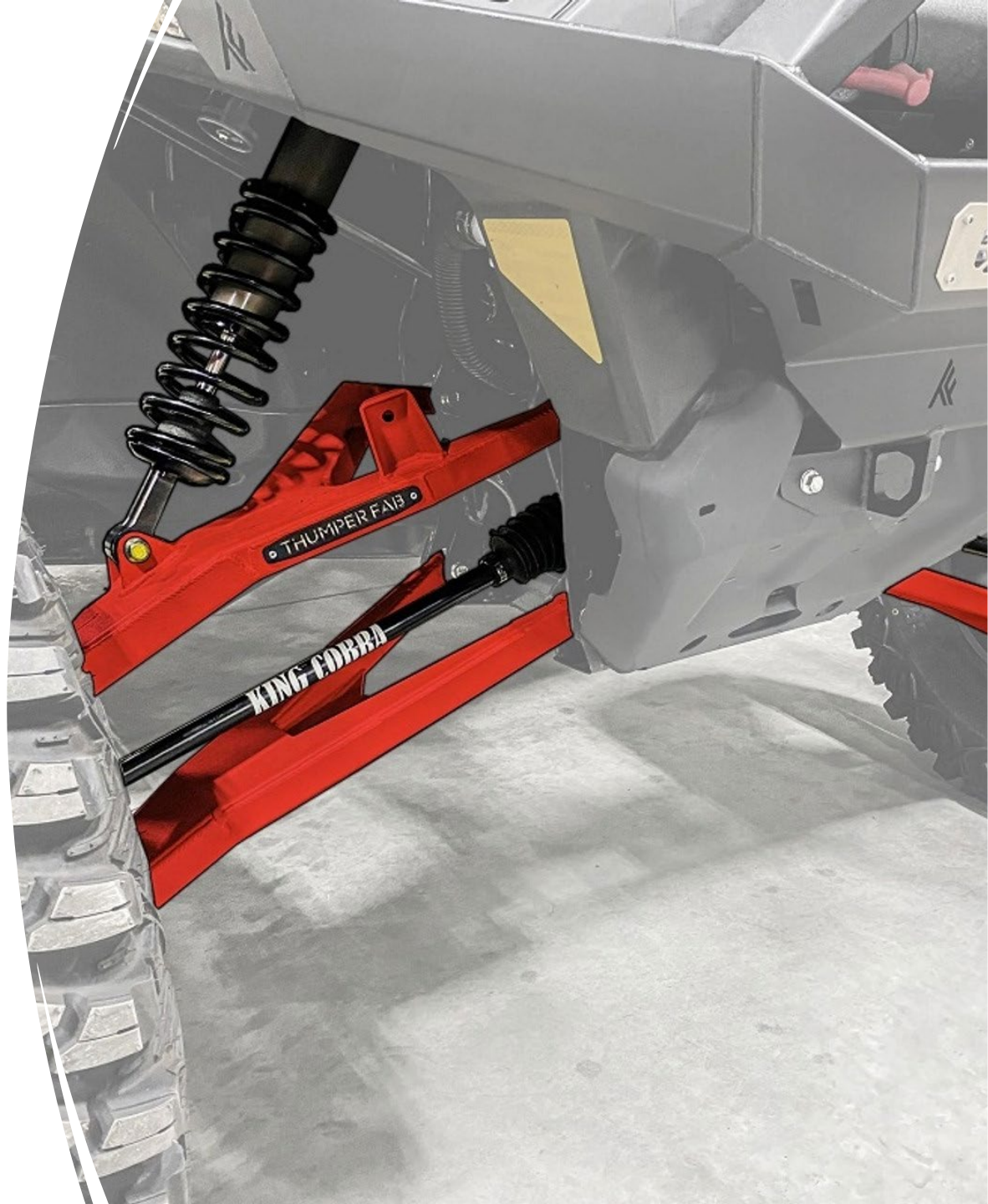
KNUCKLE UPGRADE KITS



STEERING RACK BRACE



LONG TRAVEL KITS



MOTORSPORT AUSTRALIA – 2024 SR 11.7

- MOTORSPORT AUSTRALIA
SPECIFIC REQUIREMENTS
(SR)

LEGAL WORDING

11.7 GEARBOX & TRANSMISSION

- (a) The original transmission / gearbox and differential/s must be used.
- (b) The vehicle is required to have a reverse gear fitted.
- (c) Transmission / gearbox mounts are free as is their number.
- (d) A transmission /gearbox oil radiator or cooler including pump and ancillary items may be added.
- (e) The clutch is free.
- (f) Each drive shaft is free.

DRIVESHAFT

- DEFINITION
- (NOT A CV JOINT)

What is a drive shaft?

A drive shaft transmits power from the transmission (or transfer case on a 4wd or AWD vehicle) to the differential. The differential sits within the axle housing (the large part in the center from the image above). The drive shaft allows for power to be transmitted in different directions as the axle housing moves up and down while the vehicle is moving. You'll only find drive shafts on rear wheel drive vehicle (or 4/AWD), but not on front wheel drive vehicles. The reason is, everything is self contained within the transaxle, with no need to transmit power to another location. Here is an image of a typical drive shaft:



You'll note the slip yoke which is attached to one end (left side of the image). This (as the name implies) slips in and out of the transmission so as to allow for the difference in distance from the transmission to the differential during normal vehicle travel. As the axle goes up/down, the distance will vary between the two. The slip yoke allows this to happen without interruption.

As for the term "prop shaft", it is synonymous with drive shaft.

MOTORSPORT AUSTRALIA SR11.7

- SR 11.7 – EACH DRIVESHAFT IS FREE
- **NOTE:**
 - **CV JOINTS/AXLES are NOT DRIVESHAFTS**

Automotive drive shaft [edit]

Skoda 422 rear axle, suspension and drive shaft on display at the Škoda Museum

Vehicles [edit]

An automobile may use a longitudinal shaft to deliver power from an engine/transmission to the other end of the vehicle before it goes to the wheels. A pair of short drive shafts is commonly used to send power from a central [differential](#), [transmission](#), or [transaxle](#) to the wheels.

Front-engine, rear-wheel drive [edit]

Main article: [Front-engine, rear-wheel drive layout](#)

In [front-engined, rear-wheel drive](#) vehicles, a longer drive shaft is also required to send power the length of the vehicle. Two forms dominate: The [torque tube](#) with a single [universal joint](#) and the more common [Hotchkiss drive](#) with two or more joints. This system became known as *Système Panhard* after the automobile company [Panhard et Levassor](#) which patented it.



A truck two section propeller shaft [edit]

Most of these vehicles have a [clutch](#) and [gearbox](#) (or transmission) mounted directly on the engine, with a drive shaft leading to a final drive in the rear axle. When the vehicle is stationary, the drive shaft does not rotate. Some vehicles (generally sports cars, such as the [Chevrolet Corvette C5/C6/C7](#), [Alfa Romeo Alfetta](#) and [Porsche 924/944/928](#)), seeking improved weight balance between front and rear, use a rear-mounted [transaxle](#). In some non-Porsche models, this places the clutch and transmission at the *rear* of the car and the drive shaft between them and the engine. In this case the drive shaft rotates continuously with the engine, even when the car is stationary and out of gear. However, the Porsche 924/944/928 models have the clutch mounted to the back of the engine in a bell housing and the drive shaft from the clutch output, located inside of a hollow protective torque tube, transfers power to the rear mounted transaxle (transmission + differential). Thus the Porsche driveshaft only rotates when the rear wheels are turning as the engine-mounted clutch can decouple engine crankshaft rotation from the driveshaft. So for Porsche, when the driver is using the clutch while briskly shifting up or down (manual transmission), the engine can rev freely with the driver's accelerator pedal input, since with the clutch disengaged, the engine and flywheel inertia is relatively low and is not burdened with the added rotational inertia of the driveshaft. The Porsche torque tube is solidly fastened to both the engine's bell housing and to the transaxle case, fixing the length and alignment between the bell housing and the transaxle and greatly minimizing rear wheel drive reaction torque from twisting the transaxle in any plane.

A drive shaft connecting a rear differential to a rear wheel may be called a half-shaft. The name derives from the fact that two such shafts are required to form one [rear axle](#).

Early automobiles often used [chain drive](#) or [belt drive](#) mechanisms rather than a drive shaft. Some used electrical generators and motors to transmit power to the wheels.

Front-wheel drive [edit]

In [British English](#), the term *drive shaft* is restricted to a transverse shaft that transmits power to the wheels, especially the front wheels. The shaft connecting the gearbox to a rear differential is called a "propeller shaft", or "prop-shaft". A prop-shaft assembly consists of a propeller shaft, a [slip joint](#) and one or more universal joints. Where the engine and axles are separated from each other, as on [four-wheel drive](#) and [rear-wheel drive](#) vehicles, it is the propeller shaft that serves to transmit the drive force generated by the engine to the axles.

Several different types of drive shaft are used in the automotive industry:

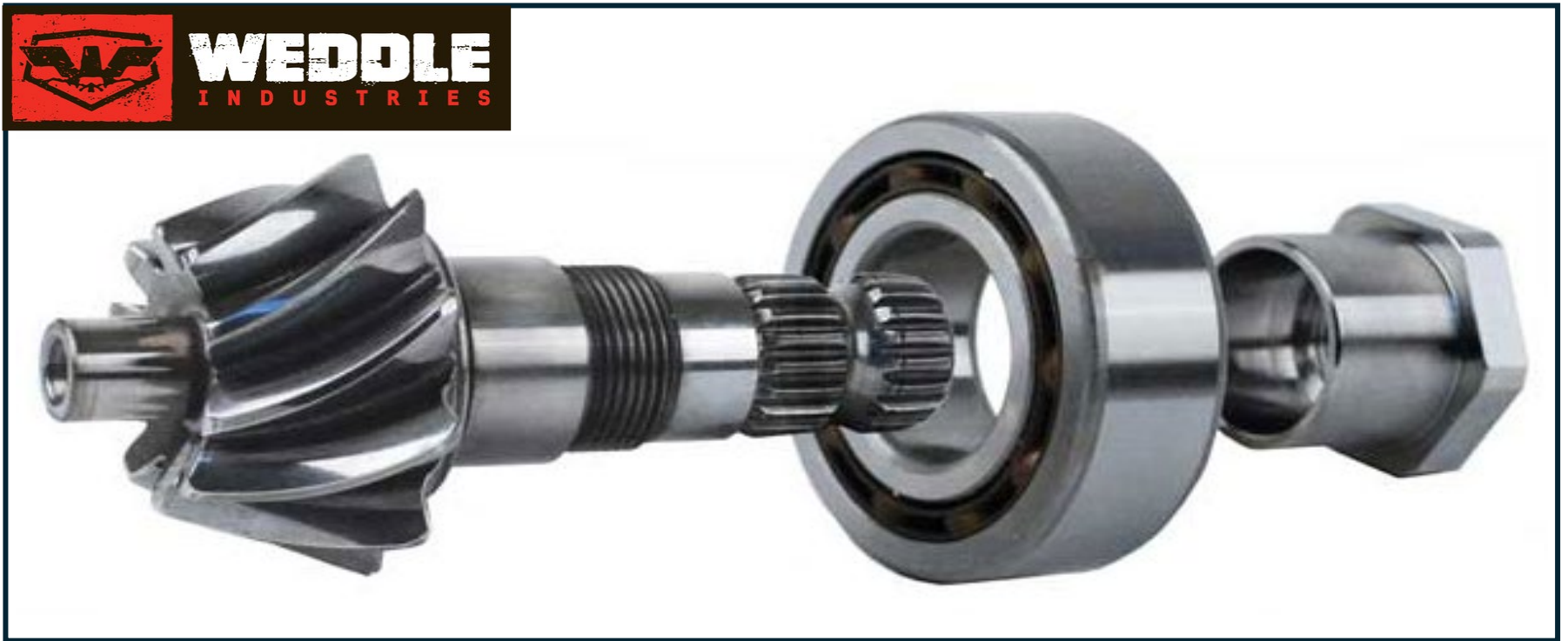
- One-piece drive shaft
- Two-piece drive shaft
- Slip-in-tube drive shaft

The slip-in-tube drive shaft is a new type that improves crash safety. It can be compressed to absorb energy in the event of a crash, so is also known as a "collapsible drive shaft".

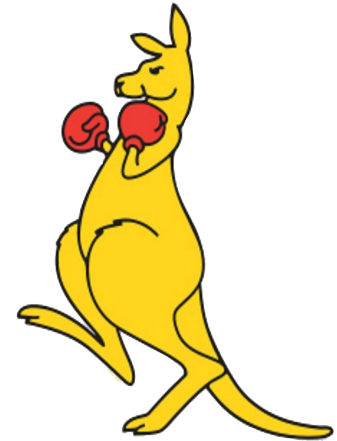
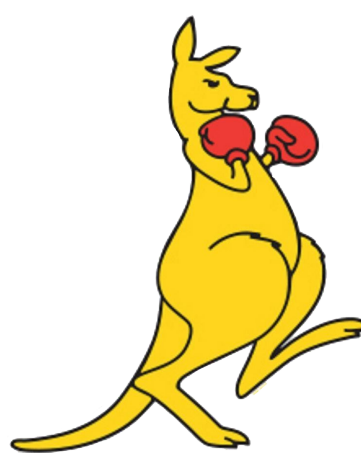
CV JOINTS – AXLES (NOT LEGAL ?) (Not a Driveshaft)



PINION BEARING UPGRADE (USA)

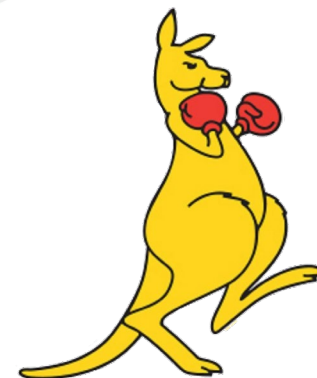


AUSTRALIAN
MADE SXS
COMPONENTS



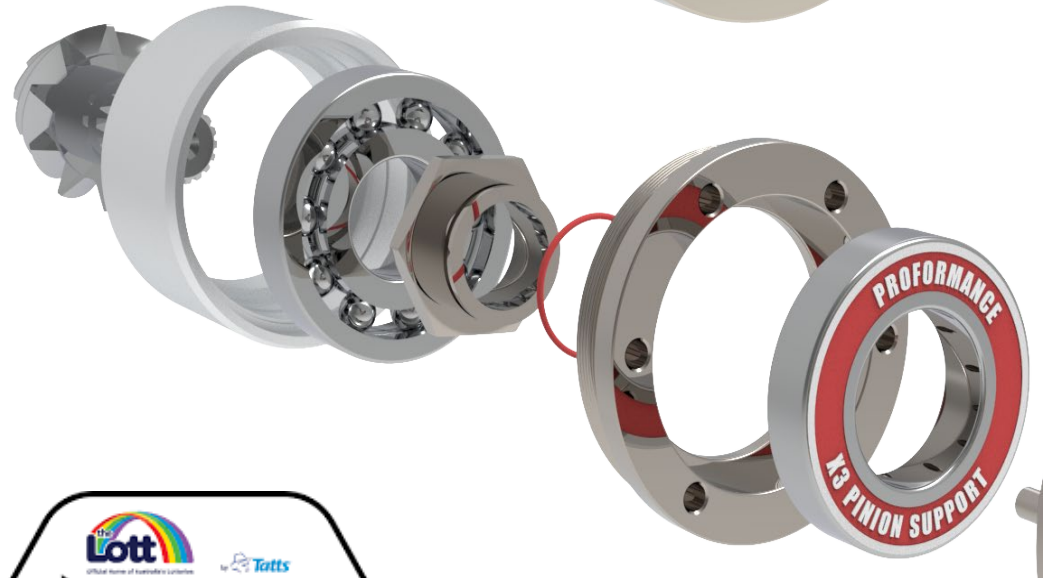
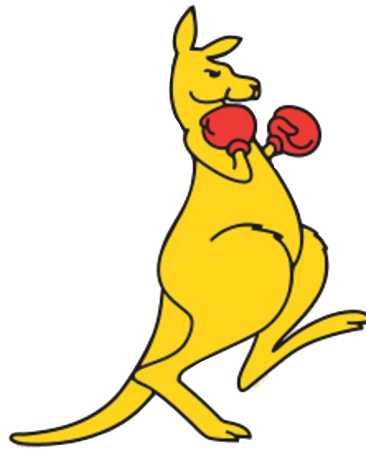
PROUDLY MANUFACTURED IN AUSTRALIA

OEM DIFF UPGRADE KITS



PROUDLY MANUFACTURED IN AUSTRALIA

PINION SAVER

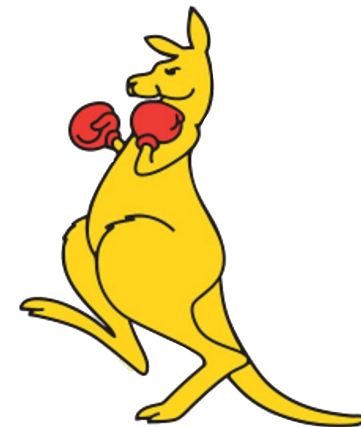
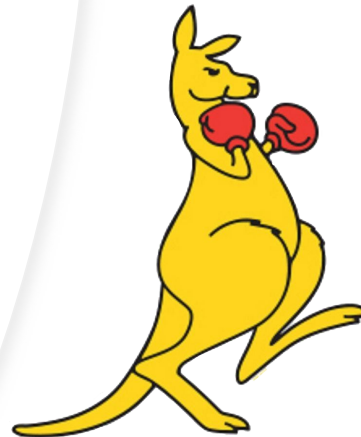
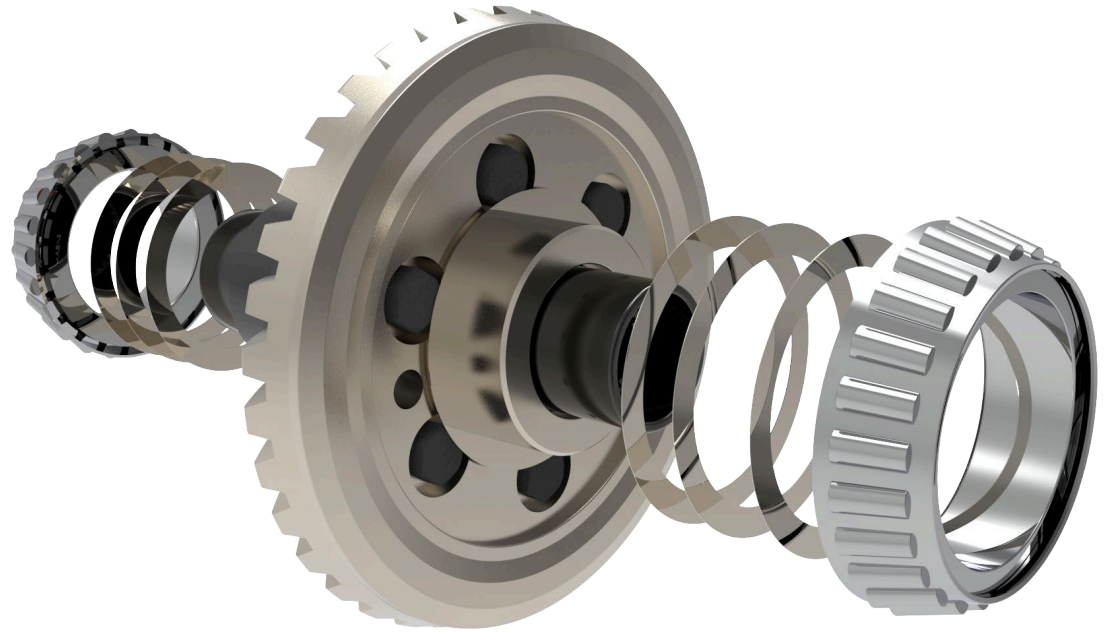


**FINKE PROVEN
MADE IN AUSTRALIA**



CARRIER BEARING UPGRADE

PROUDLY MADE IN
AUSTRALIA



BILLET SIDE COVERS



PROUDLY MANUFACTURED IN AUSTRALIA

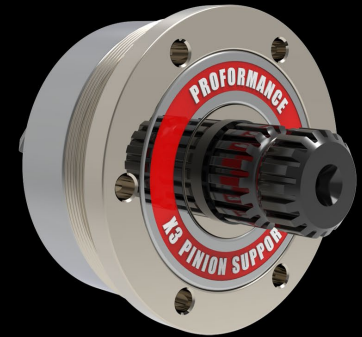
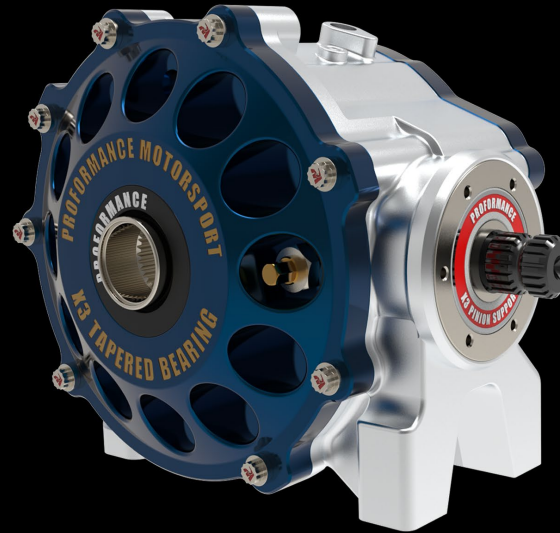
Aussie
Companies
Supporting
Aussie
Motorsport



THREE SPRINGS

\$15K PRIZE MONEY

CLASS WIN	\$2,500
CLASS PODIUM	\$1,250
FINISH	\$250



CONTINGENCY PROGRAM

