

TITAN STEERING RACK ASSEMBLIES

NOTE: All prices are SUBJECT TO CHANGE and freight is NOT INCLUDED.

In Dollars

All Titan rack and pinion assemblies are available with one of two different tooth forms. These are identified as 12 D.P and 14 D.P. The following table indicates which pinions are available for use with each type of rack tooth form and the effective 'speed' resulting from these combinations.

The ratio or 'speed' is expressed as inches (mm) of rack bar movement per one complete revolution of the pinion'.

<u>Tooth Form(DP)</u>	<u>No. Teeth On Pinion</u>	<u>Inches(mm) Rack Bar Movement/One Rev. of Pinion</u>
12	8	2.26 (57.40)
12	9	2.54 (64.51)
12	10	2.82 (71.62)
14	7	1.69 (42.93)
14	8	1.93 (49.02)
14	9	2.17 (55.12)

When ordering one of our steering rack assemblies, you will be required to state your preferred ratio from the table above.

For example item C99 610 300/14/9/B - would be a steering rack assembly featuring an eccentric pinion housing with a 14DP rack and 9 tooth pinion in "B" position, resulting in 2.17" of rack bar movement per one complete revolution of the pinion.

C996102****A3	Sports Car/Clubman offset rack assembly. Aluminium rack case	\$676.20
		
C996103****A3	Steering rack assembly with eccentric housing pinion adjustment. Made to customers spec. Aluminium rack case	\$615.30
C996101****A3	Fixed centre rack assembly. Aluminium rack case	\$594.30
		
A11611901**A2	Extend rack case up to 350mm Drawing - Customer Steering Rack Assembly Charge	\$75.26 \$157.50
A0262111101A3	Steering column end coupling, to take 3/4" column	\$53.17
A0262111102A3	Steering column end coupling, to take 5/8" column	\$53.17
A0261919700A2	Rack Clamp (2 required per rack)	\$25.12
A1162110100A4	Steering Coupling UJ - female spline	\$56.78
A1162210101A3	Steering Column Shaft Male Spline 15.88mm dia x 75mm	\$41.83

* Note: - These prices are nett prices for 1 x of each steering rack assembly (less end fittings) and are subject to your required dimensions meeting the drawing criteria. Please contact us for details of prices on quantities. Its is often necessary to extend the rack housing to meet the required dimensions. In these instances one of the following part numbers will also be quoted: EXTEND-25, EXTEND-38. A charge of £75.00 will be made for each steering rack drawing produced, this is a one off charge for each rack specification. This drawing is maintained on our CAD system ready for your orders.

BESPOKE STEERING RACK DESIGN

If our range of modular rack components does not suit your application, we have the facility to design a bespoke steering system, produce pattern equipment for the casting, manufacture assemble and supply the finished product. Below is an example of the results of a design brief to supply a steering rack assembly with integral mounting feet.



Parts Available For Clubmans Rack Assy

A0261111800A2	1	Steering Rack Housing (Alloy)	\$142.11
A0261113600A2	1	Clubman Steering Rack Housing (Alloy)	\$183.48
A0261210712A1	1	Rack Bar Only - 12DP	\$101.56
A0261310809A2	1	Pinion 9T 12DP	\$76.44
BDM15320903A4	2	Bearings 60022RS	\$11.59
BBM14161810A4	2	Oilite Bushes	\$11.07
RDS20431740A4	1	Belleville Washer (Large)	\$1.01
RDS07212825A4	1	Belleville Washer (Small)	\$1.13
SSF19140210A4	2	Felt Washers	\$1.01
A0261910400A2	1	Eccentric Pinion Housing	\$89.29
A0261910500A3	1	Pinion Housing End Plate	\$30.18
A0261910600A3	1	Back Stop Screw	\$9.58
A0261310810A2	1	Pinion 12DP 10Tooth	\$76.44
A0261910900A3	1	Blanking Disc	\$4.41
A0261911300A3	1	Back Stop Shoe	\$8.04
A0261911400A3	1	Back Stop Lock Nut	\$5.78
A0261210705A1	1	Rack Bar Only - 12DP Clubmans	\$101.56
A0261310808A2	1	Pinion 12DP 8Tooth	\$76.44
A0261213710A1	1	Rack Bar Only - 14DP	\$101.56
A0261313808A2	1	Pinion 14DP 8Tooth	\$76.44
A0261313809A2	1	Pinion 14DP 9Tooth	\$76.44
UCS04C01001A4	4	Socket Head Cap Screw	\$0.67

Parts Available For Fixed Centre Steering Rack Assy.

A0261113900A2	1	Steering Rack Housing (Alloy)	\$132.09
A0261310809A2	1	Pinion 9T 12DP	\$76.44
A0261210712A1	1	Rack Bar Only - 12DP	\$101.56
BDM15320903A4	2	Bearings 60022RS	\$11.59
BBM14181810A4	2	Oilite Bushes	\$10.56
RDS20431740A4	1	Belleville Washer	\$1.01
RDS12321835A4	1	Belleville Washer	\$1.01
CBF00103200A4	1	Circlip	\$0.69
A0261310810A2	1	Pinion 12DP 10Tooth	\$76.44
A0261910900A3	1	Blanking Disc	\$4.41
A0261310808A2	1	Pinion 12DP 8Tooth	\$76.44
A0261213710A1	1	Rack Bar Only - 14DP	\$101.56
A0261313808A2	1	Pinion 14DP 8Tooth	\$76.44
A0261313809A2	1	Pinion 14DP 9Tooth	\$76.44
A1161915400A3	1	Back Stop Cap	\$9.30
A1161915300A3	1	Back Stop Lock Nut	\$6.05
C0161915500A3	1	Back Stop Shoe	\$7.06

TITAN ADJUSTABLE RACK & PINION

Unlike a conventional Rack and Pinion which bends the rack towards the pinion to achieve optimum backlash, the Titan Rack and Pinion moves the pinion towards rack in an eccentric housing with the obvious advantage of a freer running rack and longer bearing life. Soft felt seals further enhance bearing life without adding friction. A safety buffer, positioned just clear of the rack, maintains tooth engagement under extreme loading.

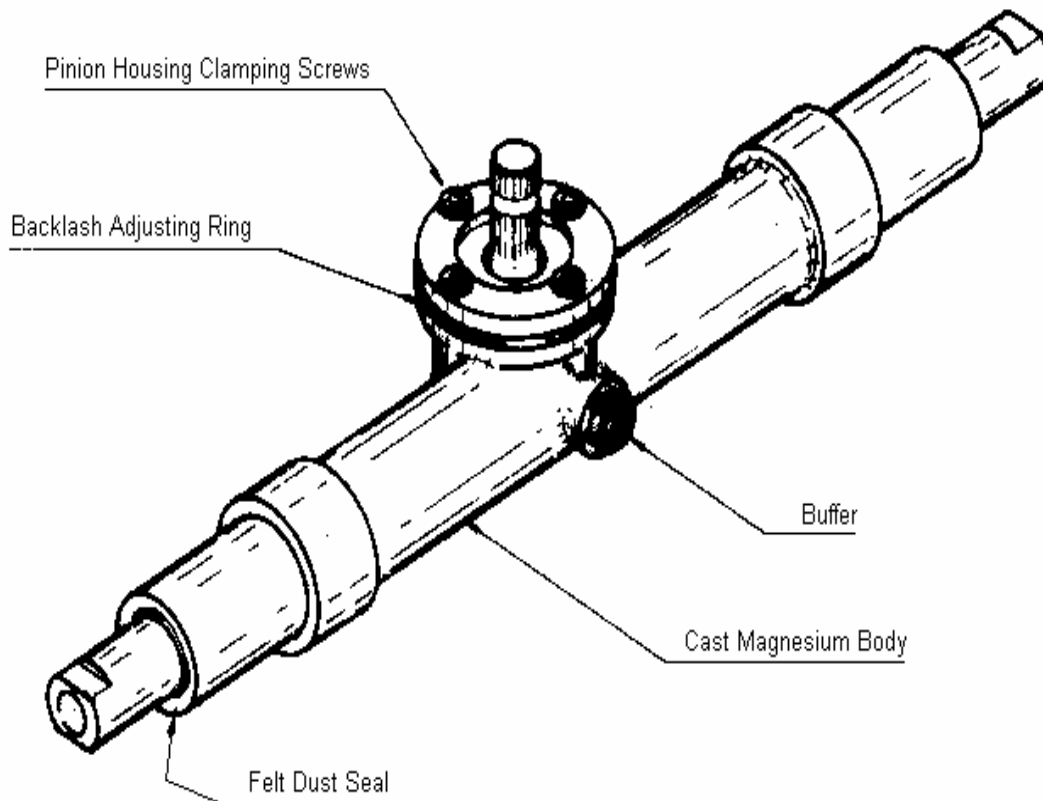
Backlash Adjustment

Slacken Buffer locknut and unscrew buffer to give clearance on rack.

Turn knurled Backlash Adjusting Ring, clockwise to reduce and anti-clockwise to increase, until there is no perceptible backlash at the tightest point on the rack travel.

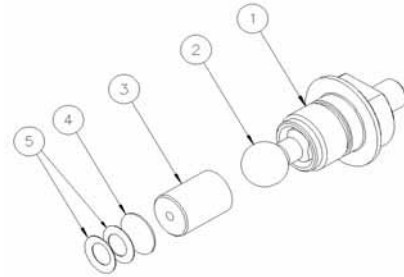
Tighten Pinion Housing Clamping Screws.

Screw in buffer until it touches the rack at the tightest point on the rack travel, then back off 1/16 turn and tighten locknut.



TITAN STEERING RACK **END JOINTS**

A1161616501A3	Compact Joint Kit 5/16" x 24UNF	\$74.26
A1161617501A3	Compact Joint Kit 5/16" x 24UNF - L/H	\$74.26
A1161616502A3	Compact Joint Kit 3/8" x 24UNF	\$74.26
A1161614502A3	Compact Joint Kit MF10x1.25	\$74.26
A1161614501A3	Compact Joint Kit-MF8x1.0	\$74.26



A0261613001A3	GA Dauphine Rack End Joint-M8 x 1.0	\$74.26
A0261613002A3	GA Dauphine Rack End Joint-M10 x 1.25	\$74.26
A0261613003A3	GA Dauphine Rack End Joint-M12 x 1.5	\$74.26
A0261613004A3	GA Dauphine Rack End Joint-5/16" UNF	\$74.26
A0261613005A3	GA Dauphine Rack End Joint-3/8" UNF	\$74.26
A0261613006A3	GA Dauphine Rack End Joint-7/16" UNF	\$74.26



A0261613200A3	Rack End Socket	\$31.02
A0261613300A3	Delrin Shoe	\$7.64
A0261613400A3	Spring	\$5.46
A0261618502A2	Ball End - 3/8" -24 UNF	\$48.05
A0261613103A2	Ball End - M12 x 1.5	\$48.05
A0261618501A2	Ball End - 5/16" -24 UNF	\$48.05
A0261618503A2	Ball End - 7/16" -20 UNF	\$48.05
A0261613101A2	Ball End - M8 x 1.0	\$48.05
A0261613102A2	Ball End - M10 x 1.25	\$48.05
UNH06F00001A4	Half Nut - 3/8" UNF	\$0.86
MNH12F00001A4	Half Nut - M12 x 1.5	\$0.86
UNH05F00011A4	Half Nut - 5/16" UNF	\$0.86
UNH07F00001A4	Half Nut - 7/16" UNF	\$0.86
MNH08F00011A4	Half Nut - M8 x 1.0	\$0.86
MNH10F00011A4	Half Nut - M10 x 1.25	\$0.86