

## Steering Rack Overview

Dec 30, 2024

## Important notes

- S3448 Steering rack to be used for Drag racing ONLY
- Designed as a front steer rack (steering arms face towards the front)
- See page 3 for pinion and clevis end adjustment
- If after reading, you have any questions or comments, please do not hesitate to call us.

### **Features**

#### **Steering rack and Pinion**

- 1.34" of travel per pinion revolution
- 24.5" tie rod centers
- 20° horizontal pinion angle
- 9/16"-26 spline pinion Same spline as Mustang/Pinto and fits steering U-joint made by Sweet Manufacturing Part #401-50613.
- 0° vertical pinion angle as shipped
- Pinion angle can be adjusted to 20° to 40°
  4.25" total rack travel
- (3.17 turns lock to lock)
- Mounting clamp centers -11.60"

#### **Clevis Ends**

-6061-T6511 billet aluminum -Accepts 3/8" high misalignment rod ends HXAM-16T (RH threads) HXAB-16T (LH threads) -Black anodzied finish

### Mounting clamp - Pinion side

-6061-T6511 billet aluminum -7/16"-14 bolt holes on 1.25" centers -Black anodized finish

#### **Mounting clamp - Opposing Side**

-6061-T6511 billet aluminum -3/8-16 bolt holes on 1.375" centers -Black anodized finish

#### **Housing Tube**

-6061-T6511 billet aluminum -Black anodized finish

#### Pinion

-4140 premium alloy steel -Heat treated for hardness



#### S3448 Steering rack total travel





# **Steering Rack Parts List**

S3448 KIT CONTENTS							
ITEM#	PART#	QTY	DESCRIPTION	ITEM#	PART#	QTY	DESCRIPTION
1	S3448K	1	End Clevis- St. Rack L	14	S3448O	3	10-24 x 1/2" FHS SS
2	S3448N	2	1/4-20 X 5/16 Set Screw SS	15	S3448G	1	Preload Retainer Cap
3	S3448Q	4	Retainer Nut- Boot	16	S510E20	1	Preload Spring
4	SST158	4	6-32 X 1/8" Set Screw	17	S3448H	1	Preload Bushing
5	S3448U	2	2.18 OD x 6" Long Boot	18	S3448A	1	Steering Rack Housing
6	S3448T	2	VS-81 Smalley retainer	19	S3448I	1	Mounting Clamp "A"
7	S3448B	1	22.25" Round Rack	20	S3448D	1	Rack Housing Tube
8	\$34410	1	O-ring #114	21	S3448M	4	1/4-20 X 1.25 SHCS SS (Locking)
9	S3448R	1	Bearing- 6002JEM SKF	22	S3448J	1	Mounting Clamp "B"
10	S3448C	1	4.125" x.750 OD Pinion Shaft	23	S3448E	1	Housing Bushing
11	S3448S	1	Bearing- 6202JEM SKF	24	S3448P	2	M3 x 4mm Stainless Steel Screw
12	H1135C	1	1/2-20 Flexlock Nut	25	S3448KR	1	End Clevis- St. Rack R
13	S3448F	1	Pinion Retainer Cap				





## **Steering Rack Adjustments**







FIGURE #2: HOUSING POSITION

#### Steering rack housing adjustment

- 1. Loosen the screws (21) that are holding the mounting clamp (19) on the steering rack housing (18).
- 2. Slide the mounting clamps off of the steering rack housing.
- 3. Rotate the steering rack housing (19) to either the 0°, 20° or 40° position. (Figure 2)
- 4. Slide the mounting clamp back onto the housing and button head screw (24).
- 5. Retighten the screw to secure the mounting clamp to the housing





FIGURE# 4: CLEVIS END POSITION



#### End Clevis adjustment

Note: A little end play is expected in the Clevis

- 1. Loosen the set screw (4) attaching the boot (5) to the boot retainer nut (3) and unscrew the retaining nut from the clevis end.
- 2. Loosen the set screw (2) inside the clevis end (1/25) and rotate the clevis end so that one of the holes shown in Figure 4 lines up with the mounting face on the steering rod (7).
- 3. Retighten the retaining nut onto the clevis end.
  - Note: Apply some grease to the boot lip to smooth the tightening of the boot retaining nut.
- 4. Retighten the set screw retaining the boot into retaining nut (3) to lock the boot (5) in place.