

# CATFORD ENGINEERING PRODUCTS

Mobile : 0418 641566

Email : [sales@catford.com.au](mailto:sales@catford.com.au)

Website : [www.catford.com.au](http://www.catford.com.au)

## Black Line Clevis Cylinders

Rated Working Pressure 3000 PSI

Seal Kits available



Part No.	Bore	Stroke	Shaft Diameter	Closed Length	Port Size	Pin Diameter	Price (Incl. GST)	
CR154	1 1/2"	4"	7/8"	14-1/4"	9/16" UNF	1"	\$187	
CR156		6"		16-1/4"	UN O-ring		\$195	
CR28	2"	8"	1-1/4"	20-1/4"	3/4" UNF UN O-ring		\$209	
CR210		10"		20-1/4"			\$220	
CR212		12"		22-1/4"			\$230	
CR214		14"		24-1/4"			\$242	
CR218		18"		28-1/4"			\$253	
CR224		24"		34-1/4"			\$297	
CR248		48"		58-1/4"			\$490	
CR256	2-1/2"	6"	1-1/2"	16-1/4"			\$198	
CR2512S		12"		22-1/4"			\$242	
CR2512L		12"		24-1/4" Long Body			\$262	
CR2518		18"		30-1/4" Long Body			\$285	
CR2524		24"		36-1/4" Long Body			\$350	
CR38	3"	8"	1-1/2"	20-1/4"			3/4" UNF UN O-ring	\$253
CR312S		12"		22-1/4"				\$286
CR312L		12"		24-1/4" Long Body				\$300
CR316		16"		28-1/4"				\$315
CR318S		18"		28-1/4"				\$345
CR318L		18"		30-1/4" Long Body				\$365
CR324		24"		36-1/4" Long Body				\$440
CR358	3- 1/2"	8"	1-3/4"	20-1/4"				\$275
CR3516		16"		28-1/4" Long Body				\$399
CR3524		24"		36-1/4" Long Body				\$470
CR48	4"	8"	2"	20-1/4"				\$308
CR412		12"		22-1/4"				\$390
CR418		18"		28-1/4"				\$462
CR424		24"		34-1/4"				\$528



# CATFORD ENGINEERING PRODUCTS

**Black Line Bush Cylinders**

**Rated Working Pressure 3000 PSI**

**Seal Kits available**

**Black Line Bush Cylinders**

**Rated Working Pressure 3000 PSI**

**Seal Kits available**



**Black Line Bush Cylinders**

**Rated Working Pressure 3000 PSI**

**Seal Kits available**



**Mobile : 0418 641566**

**Email : [sales@catford.com.au](mailto:sales@catford.com.au)**

**Website : [www.catford.com.au](http://www.catford.com.au)**

Part No.	Bore	Stroke	Shaft Diameter	Closed Length	Port Size	Eye Diameter	Eye Width		Price (Incl. GST)
							Body End	Rod End	
BR2512	2-1/2"	12"	1-1/2"	20"	3/4" UNF	3/4"	3-1/8"	2"	\$225
BR2518		18"		26"			3-1/8"	2"	\$285
BR2524		24"		32"			3-1/8"	2"	\$310
BR324	3"	24"	1-3/4"	32"		1"	3-5/8"	2-1/4"	\$365
BR3524	3-1/2"	24"	2"	32"			4-1/8"	2-1/2"	\$396
BR420	4"	20"	2-1/4"	32"		1-1/4"	4-3/4"	4"	\$429



# CATFORD ENGINEERING PRODUCTS

**Black Line Tie Rod Clevis Cylinders**

**Mobile : 0418 641566**

**Rated Working Pressure 2500 PSI**

**Seal Kits available**

**Email : [sales@catford.com.au](mailto:sales@catford.com.au)**

**Black Line Tie Rod Clevis Cylinders**

**Rated Working Pressure 2500 PSI**

**Seal Kits available**



**Website : [www.catford.com.au](http://www.catford.com.au)**

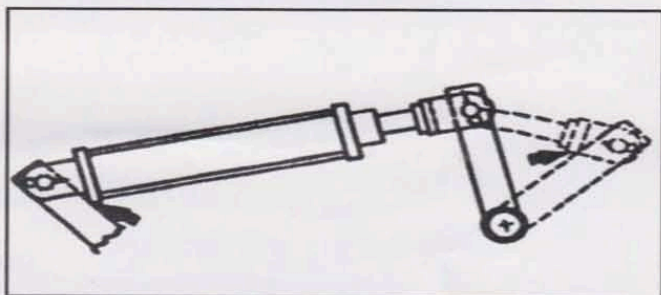
Part No.	Bore	Stroke	Shaft Diameter	Closed Length	Port Size	Pin Diameter	Price (Incl. GST)
TR28	2"	8"	1-1/8"	20-1/4"	3/8" NPT	1"	\$165
TR258	2-1/2"			20-1/4"			\$198
TR38	3"		1-1/4"	20-1/4"	1/2" NPT		\$210
TR358	3-1/2"			20-1/4"			\$220
TR2512	2-1/2"	12"	1-1/8"	22-1/4"	3/8" NPT		\$220
TR312	3"		1-1/4"	22-1/4"	1/2" NPT		\$231
TR316		16"		26-1/4"			\$253
TR318		18"		28-1/4"			\$264
TR48	4"	8"					20-1/4"





**"A 100% Australian Owned & Operated Company"**

## COMMON CAUSES FOR HYDRAULIC CYLINDER FAILURES

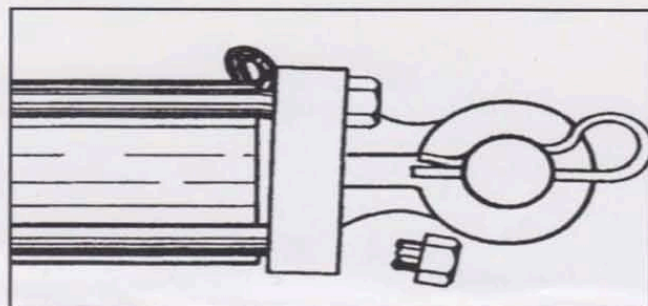


**BENT PISTON ROD NORMALLY CAUSED BY:**  
BINDING IN ANY DIRECTION.

This could have been avoided by taking the simple precaution of checking bracket clearances **BEFORE—DURING—AFTER** the cylinder was extended, and before using the cylinder under pressure.

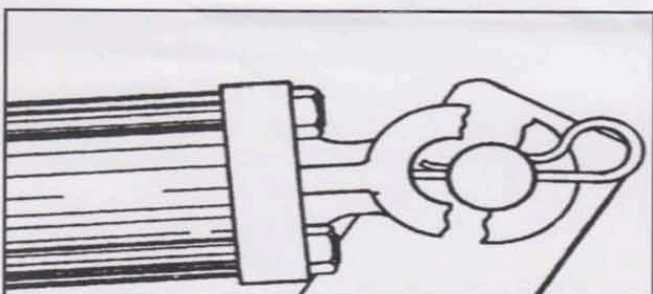
**STRETCHED TIE RODS BLOWN BODY SEAL**  
NORMALLY CAUSED BY: TOO MUCH PRESSURE.

Extruded static seal and possibly broken or stretched tie rods. To avoid this trouble check pressure rating of the cylinder against the pump pressure rating of the tractor, the cylinder is to be used on or with.



**BROKEN CLEVIS ENDS NORMALLY CAUSED BY:**  
IMPROPER CLEARANCE IN THE MOUNTING BRACKETS.

Clevis castings can be broken if clearances are not adequate to allow free movement of the cylinder when fully extended. Hydraulic cylinders exert a tremendous amount of force and if retarded before they reach the end of the stroke something has to give, often the clevis casting.



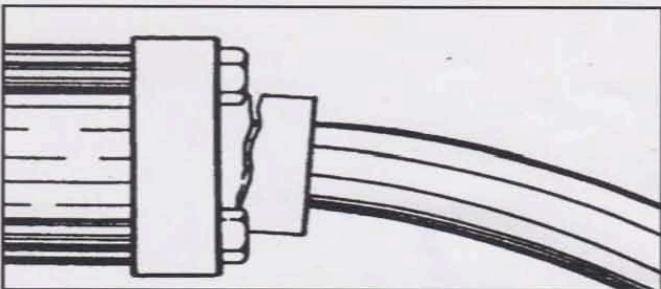
**ROUGH OR SCORED ROD.**

Tie rod cylinder rods are hard chrome plated and welded cylinders are chrome steel. They can be marked or scored. Protect the rods at all times and be sure that nothing hits or rubs it when it is extended. Rough places on the rod damages the seals and reduces their normal life, resulting in the necessity for frequent replacement.



**BROKEN HEAD CASTING NORMALLY CAUSED BY:**  
BENT PISTON ROD.

In case a rod becomes bent **DO NOT** attempt to pull the cylinder closed. To do so will almost invariably cause the head casting to crack or break.



**Greg** (Sales)

Mobile 0403 600 200

Email [sales@catfordhydraulics.com.au](mailto:sales@catfordhydraulics.com.au)

Web [www.catfordhydraulics.com.au](http://www.catfordhydraulics.com.au)

**Charles** (Sales/Technical)

Mobile 0418 641 566

Email [sales@catford.com.au](mailto:sales@catford.com.au)

Web [www.catford.com.au](http://www.catford.com.au)