Solutions that make you smile.



PARTS CATALOG 2026









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Welcome!

Welcome to our 2026 parts catalog. We hope this find you and your family active and healthy.

We thank God for the blessings He showers us with everyday. What would we have today if we were given only what we thanked Him for yesterday?

A hearty Thank You extended to all of our customers. We value your support and feedback as we continue to strive for excellence in innovation, quality, and service.

Blessings Wished!

The CMS Crew

About Us

A family owned and operated business since 1979, nestled in the heart of Lancaster County, Carriage Machine Shop manufactures quality carriages and parts, while offering friendly customer service.

Where to Find Us

Carriage Machine Shop, LLC 250 Maple Ave. Bird-in-Hand, PA 17505

717-397-4079 717-397-4085 (fax)

Terms & Conditions

RETURNS:

No returns will be accepted unless authorized by a representative of CMS LLC. Merchandise will be credited when it is in our warehouse. Return shipping costs must be prepaid. A 25% restocking fee applies to all returned or refused merchandise. No returns will be accepted after 30 days unless upon agreement. Items to be returned must be in original condition.

SHIPPING DAMAGES:

Shipping damages must be reported within 24 hours of delivery. Please keep your item and all packing materials for possible inspection. If the item returned under this clause is found to be perfect and in full working order, it will be returned to you and an administration fee of 15% of the purchase price plus the shipping cost back to you will be charged.

12 MONTH LIMITED WARRANTY:

Parts from CMS LLC are warranted for a period of 12 months from the date of manufacture, subject to the terms & conditions as follows:

- CMS LLC will repair or replace any part which is defective or becomes faulty within a period of 12 months from purchase, provided it is returned to us, shipping paid, and that the part has only been used in the normal and correct way. We reserve the right to change/improve specifications from time to time without notice. Any repairs or modifications performed by anyone other than CMS LLC automatically voids this warranty.
- Labor: The owner may at his option and with CMS LLC approval, have
 the defective part shipped to the shop for repair. All labor and material
 costs for repair at the shop will be borne by CMS LLC, but the owner
 assumes all shipping costs. Should the owner choose a source
 other than CMS LLC to repair the part, this warranty will be voided
 and CMS LLC no longer assumes responsibility for the part.
- Warranty applies to original owner only.
- Steel wheels have a 6-Year Pro-Rated Limited Warranty.
 See page 11 for details.

TERMS:

Wholesale accounts get 1% discount when paid in 10 days, net 30. Retail customers payment is due upon receipt.

NOTICE:

Carriage Machine Shop will not be liable or responsible for any type of accident that may arise from any of our products. Use all of our products at your own risk.



Improving Since 1979.

Carriage Machine Shop opened its doors in 1979 to begin manufacturing 2-wheeled carts for the pleasure driving market. As that market began to diminish around 2006, we shifted our focus to increase Amish and Mennonite buggy parts manufacturing. Since that time, we have spent considerable energy in developing and refining the steel wheel, undercarriages, and disc brakes. Enjoy a quiet drive through the history of CMS product improvements...



CMS Disc Brakes		CMS Steel Wheel & Undercarriages
CMS began manufacturing steel wheels & installing disc brakes on pleasure carriages.		CMS purchased Bellcrown Carriages who manufactured steel wheels in England for over 30 years for the pleasure carriage industry.
Installed an imported British disc brake system on an Amish carriage, which lasted only two years under rugged use.		Responding to requests for a quieter ride, CMS began developing a torsion axle undercarriage system with airbag suspension and steel wheels.
After extensive research, we partnered with an American company to design a disc brake system to fit Amish carriages.	2010	Strengthened the outside wheel channel to prevent flat spots. Tested the torsion axle w/ airbags, steel wheels & disc brakes on our personal carriages. Friends & neighbors began asking for a test drive which led to our first orders.
Stainless steel discs were getting hot and eating up the brake pads, so we switched from stainless steel to regular steel discs.	2011	Added a zinc-rich epoxy primer to the powder coating process to prevent rusting underneath the top coat.
Upgraded from 3/16" disc to 1/4" disc. The thicker disc eliminated some noise and had better wear.		Investigated and adjusted welding temperature and how it relates to occasional spoke breakage.
Switched pad material due to screeching brakes.	2013	Redesigned the regular long hub for a cleaner look & lighter weight.
To remedy issues with drag and rattle, CMS developed a 3 spring pad system. This helped, but didn't completely resolve.	2014	Modified our welding technique to remedy broken welds on the outside steel tire.
Added new style pull back springs to calipers which eliminated rattle & dragging brakes. Old disc covers trapped & amplified noise. We found that a more open design significantly reduced road noise.	2015	Developed NEW style torsion to allow about 200% more range of motion, which provides a smoother ride.
Changed caliper mount to eliminate movement on the axle caused by vibration and to make installation easier.	2016	Reduced weight by redesigning the torsion and the front fifth wheel.
Celebrated 40 years in business with gratitude to our customers!		Switched to Jasper rubber on all wheels with rubber tire, which is proving to be more durable.
		Started branding as CMS
	2020	Implemented Pivot Up Shaft Stop Started stamping date into to keep shafts from hitting carriage. Started stamping date into wheels for tracking purposes.
	2021	Switched to aluminum shaft fronts to reduce weight and prevent a price increase.
Switched to plastic disc covers to reduce weight & price.	,,,,	Introduced the new CMS Spring Tree.
	2024	Increased wall thickness by 30% on aluminum shaft fronts to improve durability.
Pivot Up Shaft receivers are now slotted to help make shafts easier to remove.	11111	Switched to aluminum alloy designed to flex under stress rather than crack.



(pictured) Gear w/ rubber torsion axle • 5200-AB Airbag Suspension • 5532 Disc brakes w/ 5100-P covers • 5300 Pivot-up steel shafts • 5502-RFR 36" x 40" steel wheels w/ rubber & flat steel rim • 409 lbs.

NOW STANDARD

Pivot-up Shaft Stop Now you can fold up your shafts without worrying that it will rub against your carriage top.

Rear Axle Set-ups:



5200-AB

Medium airbags in front & rear, choice of spindles. Most popular setup for most any size carriage or small surrey. Specify box length & width.

5200-RS Rubber shocks instead of airbags



5201-AB

Medium airbags in front & rear, choice of spindles. Rear airbags are set up wider for spring wagons, surreys, or pick-ups. Specify hub centers for length and rear airbag centers.

5201-RS Rubber shocks instead of airbags



5204-AB

Set-up for market wagons, spring wagons, or surreys. Spring in front, medium airbags in rear, choice of spindles. *Specify center of front spring to center of rear axle, and rear airbag centers.*

5204-RS Rubber shocks instead of airbags



(pictured) Gear w/ rubber torsion axle • 5200-RS Rubber Shock Suspension • 5532 Disc brakes w/ 5100-P covers • 5300 Pivot-up steel shafts • 5502-RFR 36" x 40" steel wheels w/ rubber & flat steel rim • 409 lbs.







Torsion Gear w/ Spring





USE PAGE 26 FOR

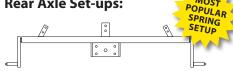


(pictured) Gear w/ rubber torsion axle • 5205 Spring attachment • 5532 Disc brakes w/ 5100-P covers • 5300 Pivot up steel shafts • 5502-RFR 36" x 40" Steel wheels w/ rubber & flat steel rim • Weight 465 lbs (weight includes springs)

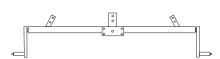
Pivot-up Shaft Stop Now you can fold up your shafts without worrying that it will rub against your carriage top.



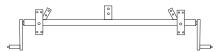




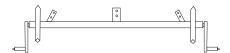
5205 Set-up for single or double carriage with springs (front & rear). Rear spring mounts behind the axle to shorten wheel base. Wooden block not needed to mount springs. Specify spring centers.



5206 Set-up for single or double carriage with springs (front & rear). Rear spring mounts on top of axle. Wooden block not needed for rear axle. Specify spring centers.



5207 Set-up for side springs on pickups, spring wagons, or surreys. Specify center of front spring to center of rear axle, and rear spring centers.



5208 Set-up for double half elliptic springs on market wagons. Specify center of front spring to center of rear axle.



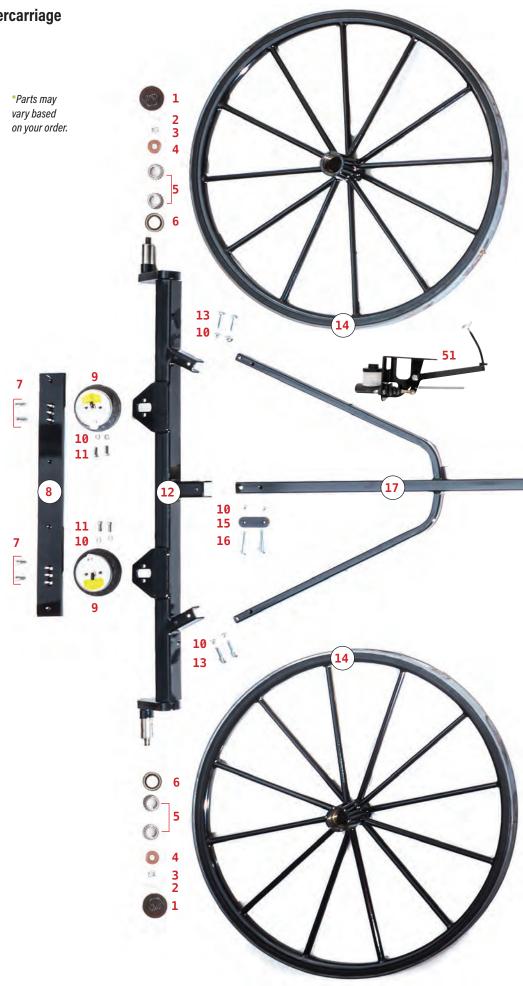
Custom Cart Axle w/Torsion 5214 Choose spindles, mounting brackets & axle length. Specify cart body width, wheel track width, and what type of attachment to mount body.

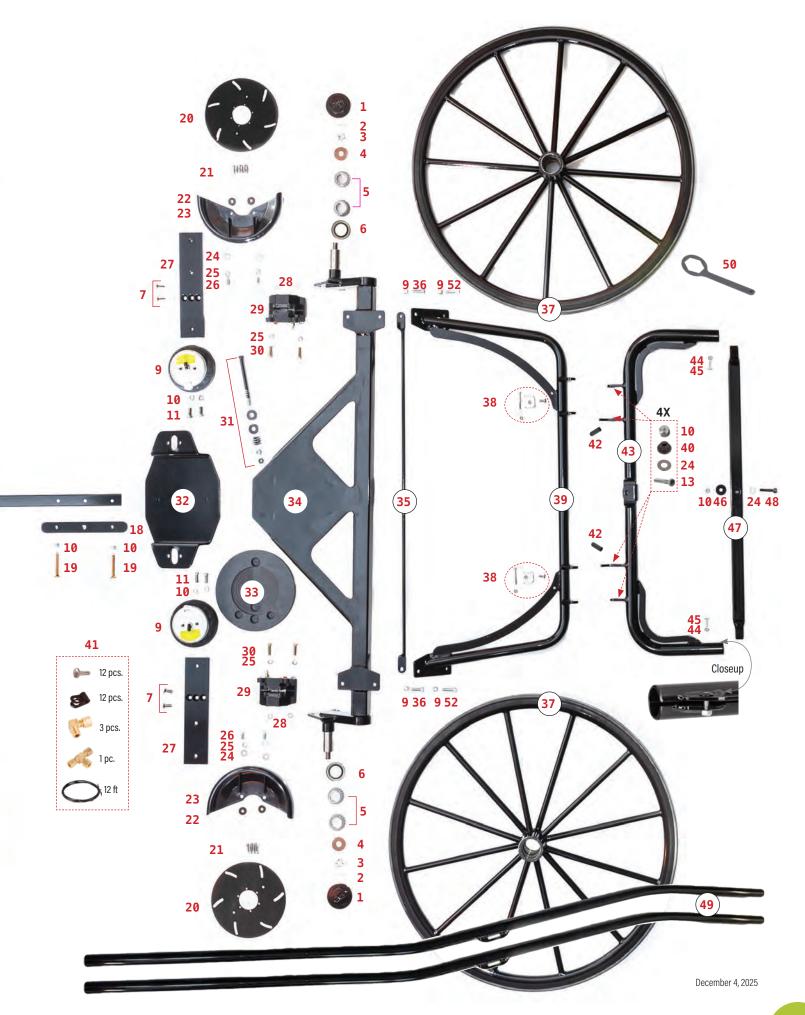
*NOTE: Spring Gears are made to fit 1 ½" springs. Springs are NOT included.



Parts List for: **5200-AB Torsion Axle Undercarriage** 5502-RFR 36x40 Steel Wheels, 5300 Pivot-up Shafts, 5532 Disc Brakes, 5100-P Disc Covers, 5559 Master Cylinder

ID	Part #	Description	QT
1	5017	Hubcap - CMS 1 1/4	4
2	5295	Cotter Pin	4
3	5168	Axle Nut for CMS 1 1/4" axle	4
4	5170	Axle Washer for CMS 1 1/4" axle	4
5	5283	Bearings for CMS 1 1/4" axle	4
6	5286	Oil Seal for CMS 1 1/4" axle	4
7	3034	Flat Socket Head Cap Screw 3/8 x 1"	8
8	5372	Aluminum Plate - Rear	1
9	5086	Airbag	4
10	3004	Stover Lock Nut 3/8-16 ZN	21
11	3023	Hex Bolt 3/8 x 1" SS	8
12		Rear Axle	1
13	3024	Hex Bolt - 3/8" x 1 3/4"	4
	5502-RFR	Rear Wheel	2
15	5227	Perch Plate Rear	1
16	3029	Hex Bolt - 3/8" x 2 ½"	2
17	5217	Perch	1
17 18	5217		1
		Perch Plate for Airbags	2
19 20	3025	Perch Bolt - 3/8" x 2 3/4"	⊢
20	5043	Metal Disc	2
21	3033	Socket Head Cap Screw 6mm x 3/4"	12
22	5186	Disc Cover - Rubber	4
23	5100-P	Disc Cover - Plastic	2
24	3102	Flat Washer 3/8"	8
25	3101	Split Washer 3/8"	4
26	3046	Hex Bolt 3/8" x 3/4"	4
27	5371	Aluminum Plate - Front	2
28	5097	Caliper Shim - 3/8" ID x .020" thick	4
29	5045	Caliper 1/4"	2
30	3028	Hex Bolt - 3/8" x 1 1/4" GR 8	4
31	5171	Kingpin Bolt	1
32	5224	Fifth Wheel Top Plate	1
33	5228	Fifth Wheel Wafer	1
34		Front Axle	1
35	5161	Mudsplasher Rod	1
36	3039	3/8" x 1-1/2" Hex Head Bolt GR 5	4
37	5502-RFR	Front Wheel	2
38	5236	Mudsplasher Hanger Bracket Kit	2
39	5034	Pivot-up Shaft Heel	1
40	5257	Pivot up Shaft Bushing	4
41	5425	Brake Tubing Kit	1
42	5187	Round End Cap - Rubber	2
43	5261	Pivot-up Shaft Receiver	1
44	3052	5/16" x 1" GR 5 Carriage Bolt Zinc	4
45	3006	Stover Locknut 5/16" Zinc	4
45 46	5262	Singletree Washer	1
47	5260	Steel Single Tree	1
48	3017	Single Tree Bolt	1
49	5302	Shaft Fronts - Aluminum	2
50	5080	Hubcap Wrench	1
51	5559	Master Cylinder	1
52	3038	Hex Bolt - 3/8" x 1 1/4" GR 5	2



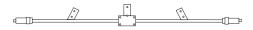




Brakes w/ 5100-P covers • 5300 Pivot-up steel shafts • 5502-RFR 36" x 40" steel wheels w/ rubber & flat steel rim • Weight 421.5 lbs

Not interested in torsion axle? ... but still want the benefits of CMS 1 1/4" hub system, pivot-up shafts, disc brakes, and steel wheels? This gear is for you!

Set-ups:



5210 Straight Axle Gear

Set-up for single carriage with springs. Specify spring centers.



5211 Straight Axle Gear w/ side springs in rear Set-up for side springs on pickups, spring wagons, or surreys. Specify center of front spring to center of rear axle, as well as rear spring centers.



5212-AB Straight Axle Gear w/ Airbags in rear

Set-up for market wagons, pickups, spring wagons, or surreys. Specify center of front spring to center of rear axle, as well as rear airbag centers.

Rubber Shock... 5212-RS





Comparing Weight to a Traditional Gear

Now you can fold up your shafts

without worrying that it will rub against your carriage top.

	TRADITIONAL	CMS UNDERCARRIAGE
suspension & axles	1" straight axles w/ EZ Ride Springs	CMS Straight Axle w/ 1 1/4" axle stubs & rolling & last longer leaf spring attachment • Larger bearings allow easier rolling & last longer • Eliminates need for axle clips
wheels	Wooden w/ channel rubber & flat steel	Steel w/ rubber & flat steel • Low maintenance & durable • Avoid annual re-hooping
brakes	7″ drum	Disc w/ covers • Smooth & consistent brake action • Uniform pad movement prevents wheels from sliding
shafts	Fiberglass	Pivot up steel • Eliminates downward pressure on horse's back (Testing has shown a 75% reduction) • Aluminum shaft fronts
TOTAL WEIGHT	405 LBS.*	421.5 LBS.*

*Weights INCLUDE EZ RIde Springs w/ mounting brackets, etc.

Disc Brakes

Installed on front axle (pictured). Also available on rear axle.

Find more **Gear Options** on p. 9









Rear Axle Spring Mount

Wooden block is NOT needed to mount spring.



Gear Options At-A-Glance = standard Torsion Torsion Straight Axle O = optional w/ Air Bag w/Spring w/Spring NA = not available Rubber torsion axle NA Straight back torsion 0 NA Regular angle torsion 0 NA Steel perch Air bags or rubber shocks (front & rear) NA NA Air bags or rubber shocks (rear, spring in front) NA 0 0 Heavy duty fifth wheel w/ nylon wafer Steel wheels 0 0 CMS 1 1/4" spindles (only fits the CMS 1 1/4" hub & disc brakes) 0 0 1 1/8" long spindles 0 0 NA 1 1/8" short spindles 0 0 NA CMS disc brakes 0 0 Disc covers 0 0 Hydraulic drum brakes 0 0 NA (only available on 1 1/8" long or short spindles) 0 0 Pivot up shafts Tabs for regular shafts 0 0 NA Pivot up shaft stop Custom shaft attachments 0 0 NA Attachment for side springs NA 0 0 Attachment for double half elliptic springs NA 0 NA

Made to fit any carriage top (Call us with specs)

Durable powder coating

5th Wheel Stop

Write your order notes here so when you re-order, it's easy!

0

0

0

Installation Tips:

Airbag Gear

- Recommended air pressure will vary due to weight and style of carriage top being used. 15 to 20 PSI is recommended for Lancaster County.
- When installing a #5200 gear, you
 will want to hook up the airbags
 side to side, meaning left rear and
 left front airbag to one gauge, then
 the same for the right side.
- Very important! Anytime you install airbags, be sure to cut the ends of the tubing straight. If they are not cut straight, they will leak!
- Use Loctite Thread Sealant 545
 (CMS part# 5451) on all air fitting
 threads.
- Check all wheel bearings installed by CMS for tightness to your specs.
 We tighten them at the shop, but as you know, wheel bearings can loosen once broken in.

Spring Gear

- When installing a #5205 gear or any of our gears with spring, you will need to supply your own springs, spring blocks, clip bars, bolts, and hangers.
- Check all wheel bearings installed by CMS for tightness to your specs.
 We tighten them at the shop, but as you know, wheel bearings can loosen once broken in.

Disc Brakes

- Use Loctite Thread Locker 263 (CMS part# 5450) on all disc brake bolts, especially on the disc and #5342 Caliper Braket. Use sparingly!
- Do NOT overtighten bolts when installing Disc Brakes. You will only stress the bolt and cause premature failure.
- CMS Disc Brakes work best when used with a Master Cylinder without a check valve. CMS #5559 already has the check valve removed. When using a master cylinder from a vendor other than CMS, please remove the check valve.



Rigorous powder coat process for maximum coating adhesion.

✓ Please specify wheel diameter when ordering.



PARTNER KEYSTONE KOATING KEEPS YOUR WHEELS PROTECTED

Every Carriage Machine wheel receives the same process at Keystone Koating.

They first blast the wheels using steel grit to ensure the metal is cleaned and ready for coating. The workhorse of protection is a zinc-rich epoxy primer coating applied to the wheel, creating a barrier from rust and other corrosive materials. This has been proven to greatly extend the life by up to 4 times!

Finally, a **top coat of polyester powder coating** is applied giving your wheels a beautiful highgloss finish with approximately **6-8 mils of protection** from the harsh elements.

Other services offered by Keystone Koating:

- Blasting
- Masking of parts to protect certain areas from powder
- Quality control personnel
- Value added services (i.e. packaging, minor assembly, etc)
- Delivery
- Environmentally responsible option vs. wet paint



Steel Wheel – Long Hub fits PA 1" or 1 1/8" long spindle axle		
5500-NONE	No Rubber or Steel	29 lbs
5500-ROH	1 ¼ Half Round Jasper Rubber	34 lbs
5500-ROF-J	1 ¼ Flat Top Jasper Rubber	34 lbs
5500-ROF-T	1 ¼ Flat Top TBP Rubber	34 lbs
5500-RFR	1 ¼ Flat Top TBP Rubber and 3/8 x 1 3/8" Flat Steel Rim	51 ½ lbs
5500-RFR-LP	Low Profile TBP Rubber and 3/8 x 1 3/8" Flat Steel Rim	51 ½ lbs
5500-RHR	1 ¼ Flat Top TBP Rubber and 1 1/8" Half Round Steel Rim	51 ½ lbs
5500-RHR-LP	Low Profile TBP Rubber and 1 1/8" Half Round Steel Rim	51 ½ lbs



Steel Wheel –	Flush Hub fits PA 1" or 1 1/8" short spindle axle	Weight
5501-NONE	No Rubber or Steel	29 lbs
5501-ROH	1 ¼ Half Round Jasper Rubber	34 lbs
5501-ROF-J	1 ¼ Flat Top Jasper Rubber	34 lbs
5501-ROF-T	1 ¼ Flat Top TBP Rubber	34 lbs
5501-RFR	1 ¼ Flat Top TBP Rubber and 3/8 x 1 3/8" Flat Steel Rim	51 ½ lbs
5501-RFR-LP	Low Profile TBP Rubber and 3/8 x 1 3/8" Flat Steel Rim	51 ½ lbs
5501-RHR	1 ¼ Flat Top TBP Rubber and 1 1/8" Half Round Steel Rim	51 ½ lbs
5501-RHR-LP	Low Profile TBP Rubber and 1 1/8" Half Round Steel Rim	51 ½ lbs



Steel Wheel – CMS 1 ¼" Hub		
5502-NONE	No Rubber or Steel	29 lbs
5502-ROH	1 ¼ Half Round Jasper Rubber	34 lbs
5502-ROF-J	1 ¼ Flat Top Jasper Rubber	34 lbs
5502-ROF-T	1 ¼ Flat Top TBP Rubber	34 lbs
5502-RFR	1 ¼ Flat Top TBP Rubber and 3/8 x 1 3/8" Flat Steel Rim	51 ½ lbs
5502-RFR-LP	Low Profile TBP Rubber and 3/8 x 1 3/8" Flat Steel Rim	51 ½ lbs
5502-RHR	1 ¼ Flat Top TBP Rubber and 1 1/8" Half Round Steel Rim	51 ½ lbs
5502-RHR-LP	Low Profile TBP Rubber and 1 1/8" Half Round Steel Rim	51 ½ lbs

CMS Channel Profile Rubber Rubber fits CMS steel

wheels only. Sold by the coil.



1 1/4" Flat Top 5189



1 1/4" Round Top 5190



1 ¼" Low Profile Flat Top 5191



Graber & Canadian custom hubs available upon request.

Weights based on 40" wheel with 12 spokes

Wheel Accessories



Hubcap Wrench 5080

For CMS 1 1/4" hubcap



O-Ring 5082

For CMS 1 1/4" hubcap



Hubcap - CMS 11/4"

Fits CMS 1 1/4" hub. Painted black.



Hub Cap - EZ Pin 5070

Fits PA long hub wheels. Powder coated black.



Hubcap - Flush 5076 Fits PA flush hub wheels. Painted black.



Oil Seal CMS 1 1/4"



Oil Seal Driver for CMS 1 1/4" oil seal



Bearing Race Driver w/ Handle for 11/4" Race 5288



for Fiberglass Wheel 5320

Raw steel. w/ hubcap



Oil Seal 52841" 52851 ¹/8"





Bearings

5282	small (A6075)
5280	1" (07093)
5281	1 ¹ /8" (07100)
5283	1 1/4" CMS



Bearing Races



For 11/4" bearing LM67010



5291 For 1 & 11/8" bearing 07196



For small bearing A6157



We are now using bearings from PEER BEARING. Extensive testing is showing improved performance.

Hub Cover 5294 for CMS 1 1/4" hub. Protects oil seal from horse hair, etc. Set of 2.



Axle Nut for CMS 11/4" Axle 5168



3/16" thick axle washer for CMS 1 1/4" axle 5170



Now using hardened steel to eliminate dishing which caused loose wheels.



Cenpeco Bearing Grease 5276



Axle nut for Regular Axle 5167



Axle washer for regular axle 5169



Cotter Pins

5296	For	1	1/8"	axle
5295	For	1	1/4"	axle





* PRO-RATED	
* WARRANTY *	

Time elapsed

2 yr24 month **FULL** 3 yr25-36 month **50%** 4 yr37-48 month 30% 5 yr49-60 month 20% 6 yr61-72 month 10%

2 yr24 month

Coverage

CMS Steel Wheel Coverage includes any defect found in the structural soundness of the wheel, under normal use (such as broken spokes, flat spots in channel, cracked hub, etc.) This does NOT include the outer rim, whether it be rubber or steel.

FULL

CMS Outer Rim Coverage on all rubber & steel rim (installed by CMS).





Powder coated black



For regular tab 5160



For pivot up shafts 5161



Mudsplasher, PVC 36" x 29" 5316 with Aluminum strips top & bottom



Steel Single Tree 5260

36" overall length. Stainless steel hooks. Powder coated black.

The CMS Spring Tree provides a soft start to your ride and reduces jerking while going uphill. This sleek style has very few components which eliminates rattle and rust. An adapter 5301 is available to mount on wooden or fiberglass shafts.



Please note: Warranty on spring trees may be voided if safety straps are not installed.

CMS Spring Tree w/ Black hooks 5298-B Stainless steel hooks. Powder coated black.

CMS Spring Tree w/ Chrome hooks 5298-C Electro-polished stainless steel hooks. Powder coated black.





Spring Tree Mounting Bracket - Bolt on 5301 Can be installed on wooden or fiberglass shafts.



Single Tree Washer 5262 Delrin plastic. For single trees on CMS pivot-up.



Singletree Bolt 3017



Lock Nut 3004



TG Fender Bracket 5304
Bolt-on



Pivot-up Plate w/ 1" Tabs 5037

Fits pivot-up plates welded to the axle. Allows easy conversion from pivot-up shafts to regular double hitch pole. Powder coated black.



Pivot-up Shaft Bushing 5257

Delrin plastic. Replacement part for the pivot point of your steel pivot-up shafts.



Brackets to install pivot-up on 1" or 1 1/8" regular axle 5263



1" Shaft Spacer 5259
Delrin plastic. %" hole.



TG Fifth Wheel Top Plate for Spring 5220



Fifth Wheel Wafer 5228



TG Fifth Wheel Top Plate for Spring w/ stops 5235



Kingpin Bolt 5171 For torsion gear

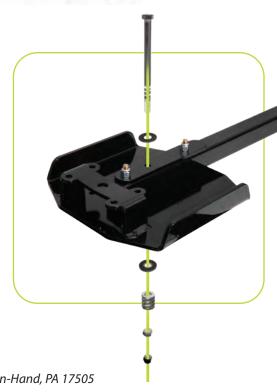


TG Fifth Wheel Top Plate for Airbag/Rubber Shock 5224



TG Fifth Wheel Top Plate for Airbag/Rubber Shock w/ stops 5234







Weld-on Pivot up Plate 6103 Raw steel



Weld-on Airbag Mount 5230 Raw steel



Rubber Shock Plate 1/4" 5159 to install rubber shock on #5200 gear.

Rubber Shock Plate 34"

5166



³/₈" x 1" Hex Bolt 3023 Stainless steel

3/8" x 1 3/4" Hexhead Bolt Grade 5 3024 For pivot up`



Socket Head Flat Screw - 3/8" x 1" 3034 Stainless



3/8" x 1½" Elevator Bolt Grade 5 3022 Stainless steel



3/8" x 1½" Socket Head Cap Screw Grade 8 3021



3/8" Fender Washer 3005 Zinc coated



³/₈"-16 x 1-¹/₄" Hex Bolt Grade 5 Plated 3038



³/₈"-16 x 1-¹/₂" Hex Bolt Grade 5 3039



3/8" x 3/4" Hex Bolt Grade 5 3037





30" x 3/8" Aluminum plate for Airbag/ Rubber Shock - Front split - Pair 5371-30



30" x 3/8" Aluminum plate for Airbag/Rubber Shock - Front 5370-30



30" x 3/8" Aluminum plate w/ 20" Airbag/ Rubber Shock centers - Rear 5372-30-20



1 1/8" long spindle 5270 Fits PA long hub. 1 1/8" short spindle 5271 Fits PA flush hub.

CMS 1 1/4" spindle 5010 For CMS hubs.



Pole 5140

Double hitch, aluminium with adjustable heel to fit shaft tabs from 44" centers to 42" centers. Powder coated black. Adjustable pole length to fit a variety of horses and ponies.

Total weight is 52 lbs.







Pole 5138 Double hitch, aluminium for pivot- up

> Emergency Kit 5480 Everything you need to make a small repair on the road to get home safely.

Air Bag Kit & Parts

Market Wagon / Spring Wagon Kits Reduce vibration and noise in a market wagon or spring wagon. Install on rear axles. Standard kit fits 1" and 1 $\frac{1}{8}$ " axle. Also available for 1 $\frac{1}{4}$ " axle. Specify axle size when ordering.



Kit with Airbags 5087-AB





Kit with Rubber Shocks 5087-RS



Spring Wagon Kit 5307 with 4 rubber shocks.



Air Bag Bracket

Powder coated black



Air Bag Bracket Adjuster 5089 Powder coated black



Air Bag Bracket Axle Mount Powder coated black



5400 1/4" poly tubing used on all CMS air bag systems.

Poly Tubing



Air Bag medium



Rubber Shock 5360



5200-ABKIT

This kit of items is used on our 5200-AB Torsion Gear, but can also be used on other gears. Check the list below to be sure this kit includes everything you need.

3023 Hex Bolt - 3/8" x 1" - stainless steel (8)

3034 Socket Head Flat Screw - 3/8" x 1" (8)

3101 Split Washer ³/₈" Stainless steel (8)

5028 Air pump (1)

5029 Air pressure gauge, bracket (2)

5086 Air bag, medium (4)

5390 Air pressure gauge 60 psi (2)

5398 Brass tee, 1/8" NPT (2)

5399 Watts Air fill valve (2)

5400 Poly tubing, 1/4" (per foot) (25)

5401 Legris tee, 1/4" poly (2)

5403 Legris elbow, ¹/₈" NPT x ½" poly (2)

5410 Legris elbow, 1/4" NPT x 1/4" poly (4)



Air Gauge 5390 60 PSI



Air Gauge Panel Mount 5392

100 PSI







Watts Air Fill Valve 5399 ¹/₈" NPT. Use with standard hand pump or tire chuck.



Brass Tee 5398 1/8" NPT



Reducing Bushing 5405 1/4" NPT x 1/8" NPT. Brass. Fits into airbags.



Legris Straight 5404 ¹/₈" NPT x 1/4" poly



Legris straight 5411 1/4" NPT x 1/4" poly



Union for 1/4" tubing



Legris Tee 5401 For 1/4" poly tubing



Legris Tee 5402 1/8" NPT x 1/4" poly



Legris Elbow 5410 1/4" NPT x 1/4" poly (fits into airbag)



Legris Elbow 5403 1/8" NPT x 1/4" poly



1/4" Tubing Clip 5183



Self Drilling Screw Panhead #8 x ½" 3035 Stainless steel



This kit of items is used on our 5200-RS Torsion Gear, but can also be used on other gears. Check the list below to be sure this kit includes everything you need.

3034 Flat Socket Head Cap Screw ³/₈" x 1" (8)

3021 Flat Socket Head Cap Screw 3/8" x 1 ½" SS (4)

3022 Elevator Bolt - 3/8" x 1 ½" Grade 2 (4)

5360 Rubber Shock (4)

5159 Rubber Shock Plate (4)

3018 Nylon Lock Nut - Zinc plated ³/₈" (16)

3005 3/8" Fender Washer (4)



Mounting Plate 5195 for panel mount gauge



Mounting Plate 5196 for air toggle switch





Air Manifold Assembly w/ 2 regulators w/ check valves and air compressor 5192

- Recommended for carriages, buggies, and spring wagons
- · Left side air bags go to left gauge & right side air bags go to right gauge. Or, front airbags to one gauge & rear to the other gauge.
- Simply adjust to preferred air pressure
- Regulators maintain air pressure in airbags and air compressor starts automatically when more air is needed and power is on
- · Backup manual air fill valve to charge air reservoir if needed



Aluminum Bracket to mount manifold under rear seat 5198



Shown with 5192 Manifold installed on 5198 bracket.



Air Manifold Assembly w/ 2 paddle switches 5194

- Recommended for carriages and buggies with equal weight front and back
- · Left side air bags go to left gauge
- Right side air bags go to right gauge
- Fill and release switch for easy air pressure adjustment
- When power is on, air compressor starts automatically when more air is needed
- · Backup manual air fill valve to charge air reservoir if needed



Inflator 5383 12 volt air compressor



Fixed Setpoint Pressure Switch, wire lead, 1/8 NPT Male Connection, 50 PSI Setpoint off 30 PSI Setpoint on





Pressure Regulator 5380 Clippard Pressure Regulator, #10-32 Mainfold Mount, Knurled Knob, 10-50 psig



SS Face Plate 5192A-1 16 ga #4 polish, for manifold w/ regulators.



Threaded Brass Bushing 5406 1/2 NPT male x 1/8" NPT female



Compression Straight 5431 w/ 1 nut. 1/8" NPT male to 3/16" tube



Compression Straight 5428 w/ 1 nut. 1/8" NPT female to 3/16" tube



Compression Straight 5429 w/ 1 nut. 1/4" NPT male to 3/16" tube



Plug 5432 w/ hex drive. 1/8" NPT w/ sealant.



Rubber Ball 5384 for manifold check valve, 5/16".



Compression Spring 5385 for manifold check valve, 1" long x 0.3 diameter.



SS Face Plate 5194A-1 16 ga #4 polish, for manifold w/ paddle switches.

Disc Brakes & Parts

Kits contain parts for 2 wheels. Order 2 kits for 4 wheels. Master cylinder is not included in kits, but can be purchased separately on page 20.

PLEASE NOTE: If you are mounting disc brakes on fiberglass or wooden wheels without channel, rubber, and steel, you can expect some rattle due to excessive vibration. Feel free to call with questions!

Disc Brake Kit w/ Covers for Regular Axles 5530-DC

Clamp-on bracket. Fits 1" or 1 1/8" axle.



Disc Brake Kit for Regular Axles 5530

Clamp-on bracket.
Fits 1" or 1 1/8" axle



Disc Brake Kit for CMS 1 1/4" Hub For gear with weld-on caliper bracket (not included).

.....5533 with covers......5533-DC



Disc Brake Kit for 8 Bolt Hub 5534

For gear with weldon caliper bracket (not included).



Also Available: Disc Brake Kits for Farmerstown Axle Systems

5535 Fits 1 ¼" Farmerstown Axle 5536 Fits 1 ½" Farmerstown Axle

Metal Disc 1/4" x 9 1/2". Zinc plated steel.







5043 For CMS 1 1/4" hub



Brakleen 5247 Used to clean brake rotors and calipers.



Aluminum Disc Mount 5048
For mounting discs to aluminum wheels.



Aluminum Disc Mount 5049
For mounting discs to metal, wooden & fiberglass wheels.



Disc Covers 5100-P High-gloss black plastic.



Disc Cover Rubber 5186 For #5100 disc covers.

CMS Disc Brakes now compatible with...

TROOPER by ROADEdge



Mounting holes in disc brakes are now provided for quick installation of the Trooper speedometer.



For more information, please contact Dashing Woodworks 717-808-4315 405 Cains Road Gap, PA 17527



Caliper - 1/4" 5045
Disc brake wheel caliper



Caliper Pads 5046 Set of 4



Brake Pad Shims 5098 Set of 4. Available in .025" or .050" thickness.

Caliper Brackets



Caliper Bracket 5340 For 1" and 1 1/8" axle. Powder coated black. Tightens against all 4 sides of the axle, creating less movement caused by vibration.



Caliper Bracket w/ Disc Cover Attachment 5342 For 1" and 1 1/8 " axle. Powder coated black. Tightens against all 4 sides of the axle, creating less movement caused by vibration.



5116 ³/₈" raw steel



5118 ³/₈" raw steel



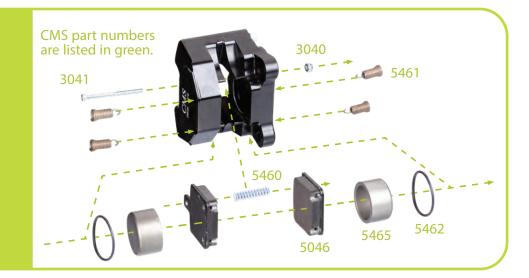
5113 For disc cover. ³/8" raw steel.



5343 For disc cover. 3/8" raw steel for torsion arm.



Rebuilding a CMS caliper? Here's what you need!



Helpful Tool

The perfect solution for installing pads in the CMS Caliper!



Disc Brake Caliper Pad Asembly Tool 5244



Put springs #5461 into holes in caliper.



2 Set caliper on assembly tool.



Push down on caliper & slide pad in until both springs hook into pad.



Repeat for second pad.







Brake Eyelette 5020 Brake pedal ball joint.



Pedal Cap 5127 Aluminum, ³/₈" thread hole



Hex Nut 3003 5/16 - 24. Zinc.



Master Cylinder Rebuild Kit 5561-RB



Master Cylinder Bracket Only 5566

Replacement Cap for MC 5564

Powder coated black







5561 1" w/o check valve (for disc) 5562 1 1/s" w/o check valve (for disc) 5563 1" with check valve (for drum)

These three items may be used to clean out disc bolt threads on CMS 1¼" hub wheels.



6mm-10 Tap 5439



6mm Thread Cleaner 5438



6M x 1.0 Thread Form 5440



Stainless Steel Bleeder Screw w/ Brass Bushing 5469



3/8" Nylon Lock Nut 3018 Zinc plated



#10-24 Nylon Lock Nut 3040



Bleeder Screw 5468 Stainless steel



Caliper Shim 5097 3/8" ID x .020" thick



Lock Nut 3040



Bleeder Screw Bushing 5467 Brass



Split Washer 5/16"
3100 Stainless steel



Caliper Spring 5461

Keeps tension on pads to eliminate rattle.

Caliper Spring 5460

3/8" x 11/4" spring goes between pads.



3/8" x 11/4" Grade 8 Hexhead Bolt 3028 For calipers



Split Washer ³/₈" 3101 Stainless steel



O-Ring 5462
Caliper piston O-ring



Socket Head Cap Screw Grade 5 -5/16" x 11/4" 3031



Flat Washer ³/₈" 3102 Stainless steel



Caliper Piston 5465
For ¼" caliper



Socket Head Cap Screw Grade 5 -5/16" x 3/4" 3032



3/8" x 3/4" Hex Bolt Grade 5 3037



O-Ring Lubricant 5463

Use on pistons and o-rings when rebuilding a disc brake caliper



Socket Head Cap Screw 6mm x ¾" 3033 Stainless steel



#10-24 x 2 ½" Hex Cap Screw Bolt Grade 5 3041

Brake Fittings



3/16" Brake Tubing High pressure brake tubing is available in 100, 500 & 2000-ft. rolls.

5420	per foot
5420-100	-
5420-500	500 ft. roll
5420-2000	2 000 ft roll



Loctite Thread Locker 263 5450 To be used on disc fasteners. 1.69 oz.



Loctite Thread Sealant 545 5451 Recommended for use on disc brakes or air bag fittings. Use in place of Teflon tape. 1.69 oz.



Compression Fittings

• Solid brass (no-rust)

· Fits hydraulic disc or drum brakes.

5421

Compression Elbow 5422 Fits master cylinder & disc brake calipers.

Compression Tee



Compression Straight 5423 Fits drum brakes.



Compression Nut 5424



Replacement Blade 5245



Self Drilling Screw Panhead#8 x ½" 3035 Stainless steel

3/16" Tubing Clip



Brake Fluid DOT 3 5277 12 oz.





Brake Lock Valve 5430



Mounting Bracket 5393 for Brake Lock Valve & Air Valve



Compression Elbow 5422





5422 Compression Elbows

Mounting Bracket

Items sold separately.
Shown assembled for reference.

Miscellaneous Buggy Parts



Light Bracket w/ Bridle Hook Powder coated black.

2004 black powder coated



Light Bracket for Buggy w/ Bridle Hook Powder coated black. 2260



Mirror Bracket

Powder coated black.

2148-5 short (4 ¹/₈") 2148-M..... medium (5 ¹/₈") 2148-L long (6 ¹/₈")



Mirror Bracket

Stainless steel

2235-M..... medium (5 ¹/₈") 2235L long (6 ¹/₈")



Window Holdup Powder coated black. Fits Amish carriage boxes. 2228-N narrow 1 1/4" 2228-W wide 2 1/4"



2228-N



top view



Window Holdup -Mennonite Style 2228-M

Powder coated black. Fits most Mennonite carriage boxes.



Roller Irons 5279

With nylon rollers. Very quiet & durable. Used for steel rims or rubber tire.



Mudsplasher Strips

¹/₈" x 1" aluminium strip. Specify length: 29 1/2", 32", 35", 37", 39"



Mudsplasher J-Clips Stainless, with bolts

51727/8"

Extra Bolts, Nuts & Washers for Mudsplasher J-Clips 5173-BP 50 pc. pack





Bio Plastic Eyelette 5174 For J-Clip



Spring Link 1/4" x 1" metal with radius ends. Raw steel.

2250 .. 1 1/4" hole center 2251 .. 1 ½" hole center 22522" hole center



Buggy Jack 2039 Black powder coated. Makes wheel washing a breeze.



HP662 DTA Black 2K Epoxy Primer HP662

Direct to anything application with excellent adhesion. 10 day topcoat window. Not a sanding primer. Direct to rust, has rust converter. 2 gal kit



DURAFLINT 9044 - Black Paint HC9044

Excellent gloss and color retention. 8 hour assembly time, 2 week full cure. 6 hour pot life. 10 year gloss. Can be used in direct to metal application. Comparable to U280. 1 gal kit

Automotive Paints & Primers



DTR & DTM Black Urethane Primer HP5311

Direct to rust / rust converter. Very high build acrylic urethane primer. Wood grain, etc. filler. Direct to metal application. 3-4 hour sanding time @ 80 degrees. 1 hour pot life. 4:1 mixing ratio w/ HH3100. 1 ½ gal kit



PENNSYLVANIA EXEMPTION CERTIFICATE

STATE AND LOCAL SALES AND USE TAX
STATE 6% AND LOCAL 1% HOTEL OCCUPANCY TAX
PUBLIC TRANSPORTATION ASSISTANCE TAXES AND FEES (PTA)
── VEHICLE RENTAL TAX (VRT)
ADDITIONAL LOCAL CITY COUNTY HOTEL TAY *

This form cannot be used to obtain a Sales Tax Account ID, PTA Account ID or Exempt Status.

(Please Print or Type)
Read Instructions
On Reverse Carefully

THIS FORM MAY BE PHOTOCOPIED - VOID UNLESS COMPLETE INFORMATION IS SUPPLIED							
CHECK ONE: — PENNSYLVANIA TAX UNIT EXEMPTION CERTIFICATE (USE FOR ONE TRANSACTION)							
PENNSYLVANIA TAX BLANKET	PENNSYLVANIA TAX BLANKET EXEMPTION CERTIFICATE (USE FOR MULTIPLE TRANSACTIONS)						
Name of Seller, Vendor or Lessor Carriage Machine Shop, LLC							
Street 250 Maple Ave	T T T T T T T T T T						
NOTE: Do not use this form for claiming an exemption on cle, trailer, semi-trailer or tractor with the PA Department of	the reg	gistration of a vehicle. To c portation, Bureau of Moto	claim an exem r Vehicles, us	ption from t e one of the	ax for a motor vehi- following forms:		
FORM MV-1, Application for Certificate of Title	(first-t	ime registrations)					
FORM MV-4ST, Vehicle Sales and Use Tax Re	eturn/A	pplication for Registration	n (other regist	rations)			
Property and services purchased or leased using this cert from the back of this form, check the corresponding block	tificate	e are exempt from tax bever and insert information re	cause: (Selec equested).	t the appro	priate paragraph		
1. Property or services will be used directly and predominately	by pure	chaser in performing purchaser	's operation of:				
2. Purchaser is a/an:		holding Sales Tax Ex	emption Number				
3. Property will be resold under Account ID (If purchaser does not have a PA Sales Tax Account ID, include a statement under Number 8 explaining why a number is not required).							
Property or services will be used directly and predominately by purchaser performing a public utility service. PA Public Utility Commission PUC Number and/or U.S. Department of Transportation MC/MX							
5. Exempt wrapping supplies, Account ID (If purchaser does not have a PA Sales Tax Account ID, include a statement under Number 8 explaining why a number is not required).							
 6. Canned computer software purchased by a financial institution subject to the Bank and Trust Company Shares Tax (Article VII) or the Mutual Thrift Institutions Tax (Article XV). 							
7. Canned computer software licenses that are billed to a PA address but used outside of PA. The total number of software licenses purchased for invoice # is The total number of users accessing and using the software outside PA is							
8. Other(Explain in detail. Additional space on reverse side).							
I am authorized to execute this certificate and claim this exemption. Misuse of this certificate by seller, lessor, buyer, lessee or their representative is punishable by fine and imprisonment.							
Name of Purchaser or Lessee	Signature EIN Date		Date				
Street	1	City		State	ZIP Code		

1. ACCEPTANCE AND VALIDITY:

For this certificate to be valid, the seller/lessor shall exercise good faith in accepting this certificate, which includes: (1) the certificate shall be completed properly; (2) the certificate shall be in the seller/lessor's possession within 60 days from the date of sale/lease; (3) the certificate does not contain information which is knowingly false; and (4) the property or service is consistent with the exemption to which the customer is entitled. For more information, refer to Exemption Certificates, Title 61 PA Code §32.2. An invalid certificate may subject the seller/lessor to the tax.

2. REPRODUCTION OF FORM:

This form may be reproduced but shall contain the same information as appears on this form.

3. RETENTION:

The seller or lessor must retain this certificate for at least four years from the date of the exempt sale to which the certificate applies.

MIMPORTANT: DO NOT RETURN THIS FORM TO THE PA DEPARTMENT OF REVENUE.

4. NONPROFIT EXEMPT ORGANIZATIONS:

This form may be used in conjunction with form REV-1715, Exempt Organization Declaration of Sales Tax Exemption, when a purchase of \$200 or more is made by an organization which is registered with the PA Department of Revenue as an exempt organization. These organizations are assigned an exemption number, beginning with the two digits 75 (example: 75000000).



METAL WHEEL

ORDER SHEET

CUSTOMER		ADDRESS	
PO#			
PHONE#			
ORDER DATE		SHIP VIA	
OMPLETION		_	
	#5500	BRAKES INSTALLED	
	REGULAR HUB, LONG SPINDLE	DISC ON FRONT	
	36"	DISC ON FRONT	
	38"	DISC ON REAR	
	40"		
	42"	DRUM ON FRONT	
	#5501	DRUM ON REAR	
	FLUSH HUB, SHORT SPINDLE		
	36"	RUBBER & RIM OPTIONS	
	38"		
	40"	FLAT RUBBER	
	42"	HALF ROUND RUBBER	
	#5502 CMS 1 ¼"	RUBBER & FLAT STEEL	
	36"	LOW PROFILE RUBBER	
	38"	& FLAT STEEL	
		RUBBER & HALF ROUND STEEL	
	40"	LOW PROFILE RUBBER &	
	42"	HALF ROUND STEEL	
		NONE	
TEC.		NONE	
/ I LJ			

Revised 4/26/2021



TORSION GEAR

ORDER SHEET

CUSTOMER			ADDRESS	
PO#				
PHONE#				
			CLUDA/IA	
ORDER DATE			SHIP VIA	
COMPLETION				
GEAR TYPE			BRAKES	
AIRBAG or RUBBER SHOCK	#5200	AB / RS	DISC ON FRONT	
AIRBAG or RUBBER SHOCK	#5201 _	AB / RS	DISC ON REAR	
AIRBAG/SPRING or RUBBER SHOC	к #5204 _	AB / RS	DISC COVERS	
EZ SPRING	#5205		DRUM ON FRONT	
EZ SPRING	#5206 _		DRUM ON REAR	
EZ SPRING	#5207 _			
EZ SPRING	#5208 _		NONE	
STRAIGHT AXLE	#5210 _			
STRAIGHT AXLE	#5211		MASTER CYLINDER	
STRAIGHT AXLE (AB or RS)	#5212 _	AB / RS	1" w/o CHECK VALVE (DISC) #5559	·
			1" w/ CHECK VALVE (DRUM) #5558	
WHEELS			OTHER	
36 X 40" METAL	_			
38" X 42" METAL	_			
NONE	_		AXLE SPINDLES	
CUSTOM SIZE	_		CMS 1 ¼"	
			LONG SPINDLE 1 1/8"	
WHEEL RIM OPTIONS			SHORT SPINDLE 1 1/8"	
FLAT RUBBER	_			
HALF ROUND RUBBER			ALUMINUM STRIP (AIR BAG ONLY)	
RUBBER & FLAT STEEL			REGULAR	
LP RUBBER & FLAT STEEL			SPLIT	
RUBBER & HALF ROUND STEEL	_			
LP RUBBER & HALF ROUND ST	EEL _		AIR MANIFOLD KIT	YES NO
			Fill out Manifold order sheet.	
SHAFTS				
PIVOT UP METAL	_		BODY BOX SIZE (AIRBAG)	
SINGLE TREE	Y	ES NO	SPRING CENTERS (EZ SPRING)	
SPRING TREE CHROME	BLACK _		5TH WHEEL STOP	YES NO
			WELD ON TABS FOR AXLE LIGHTS	YES NO
SHAFT ATTACHMENTS				
PLATE FOR PIVOT UP	_			
TABS FOR REGULAR SHAFTS	_			
CUSTOM ATTACHMENT	_			
IOTEC.				

Revised 11/1/2023



Stainless Steel Face Plate

MANIFOLD

ORDER SHEET

CUSTOMER		ADDRESS				
PO#						
PHONE# ORDER DATE		SHIP VIA				
COMPLETION	-					
	Gear #					
	Manifold Type					
		A. #5192 Clippard Regulators with check valves				
		B. #5194 Paddle Switches X 2 without check valves				
		C. #5193 Paddle switches X 4 without check valves				
	Gauges					
		A. Mounted in Manifold				
		B. Remote Gauges				
	Mounting Position					
		A. Top Shelf				
		for wooden face plate	YESNO			
		B. under Dash				
		C. Under Back seat				
	Fittings					
		A. ¼" legris				
		B. Compression				
	Air Line Hooku	p to Airbags				
		A. 2 Airlines, left side – right side				
		B. 4 Airlines, one to each airbag				

YES NO



CARRIAGE PARTS

ORDER SHEET

PO# PHONE# ORDER DATE COMPLETION				
QTY	PART#	DESCRIPTION	PRICE	TOTAL
-				

Revised 12/11/20

ASK for these products at your local coach shop.





250 Maple Ave. Bird-in-Hand, PA 17505

Please call for technical questions. Wholesale accounts: Call for quantity pricing.