Conveyor

Service Manual

COLEMAN HANNA CARWASH SYSTEMS LLC

AN O'HANRAHAN COLEMAN COMPANY

5842 W 34th St, Houston, TX 77092
1.800.999.9878 • 1.713.683.9878
www.colemanhanna.com

Find us on Facebook: /ColemanHannaCarwash

Hanna RCV Conveyor

Table of Contents

INTRODUCTION

PURPOSE OF EQUIPMENT

The HANNA RCV Conveyor gently eases vehicles forward through the carwash brush package and dryer area.

The RCV Conveyor is available in both a left and right hand drive model making it the obvious choice for worldwide applications. Ease of operation, low maintenance cost and reliability make the RCV Conveyor the best in the industry.

DESIGN FEATURES

HANNA manufactures the RCV Conveyor of 3/8" thick steel for strength and long life. Entrance and exit sections have noise reducing trap doors, making the RCV Conveyor one of the quietest in the industry.

Tapered guide rails and roll-bar assemblies ensure a safe and easy entrance for vehicles, giving your customer a very pleasant wash experience.

The Hannatron guide rail protects wheels while the high-density polyethylene chain guides reduce maintenance costs and chain wear.

PRINCIPLE OF OPERATION

The RCV Conveyor features "Roller-on-Demand" controls that allow the operator to choose when rollers are needed. The patented 6-wheel roller assembly moves vehicles safely through the wash.

1. BASIC COMPONENTS

A. Entrance Section
B. Center Section(s)
C. Exit Section
D. Chain with Roller Assemblies
E. Conveyor Roller Control

2. ENTRANCE SECTION

The Entrance Section comes in 10” lengths, containing sprocket and bearings on a sliding mount with an adjustable tension spring. It also contains a roller raiser assembly controlled by an air cylinder.

3. CENTER SECTION (S)

The standard Center Section is 15” long. Shortened sections will be furnished when required.

4. EXIT SECTION

The Exit Section is 10’ in length and contains a hydraulic gearbox and motor as well as the conveyor chain drive sprocket.

FIGURE 1

INSTALLATION

Before starting installation, check the concrete slab using the appropriate HANNA-S1 drawing. Pay particular attention to the driver side wall of the conveyor pit, check it for straightness by stretching a string line from entrance to exit and observe any bow in the concrete wall. This is significant because in ideal conditions the conveyor is placed hard against the driver's side wall from one end to the other. However, very few concrete pores of this length are perfectly straight. By using the string line you will be able to determine where the conveyor will set tight against the wall and where it will need to be moved away to maintain a straight conveyor. Use the string line for the left to right placement of each section during installation.

1. Place the conveyor into the pit and on the conveyor shelf.
2. Move the entire conveyor tight to the entrance end and up to the pit wall. Any deviation in length can be compensated for by trimming off or adding to the 18" makeup plate on the exit section.
3. Have two pieces of 4" X 4" aluminum tubing cut (one 5-1/4" long and the other 6" long). Drill two holes on opposite sides 1/2" from one end of each tube. Place the 5-1/4" tube (holes up) in the center of the top deck of the conveyor and the other 5' over on the slab or where the passenger side tire will run. Put a 6' level on top of the tubes and secure the level to the tubes with a wire tie using the two drilled holes. ***This procedure is used for a rear wheel push conveyor where the driver's side tire is 3/4" higher than the passenger side tire. Reverse the tubes (6" tube on the conveyor) for a front wheel push conveyor to make the drivers side tire 3/4" lower then the passenger side tire.***
4. Use two small hydraulic jacks (one on each end just inside the conveyor) to raise the conveyor until each end is level. Move the level and tubes from one end to the other to check for level. Use a torpedo level to make sure the top deck is level left to right.
5. Now move the conveyor side to side to run it parallel with the string line. Use a torpedo level across the top deck to determine level of the surface the tire will roll on. Conveyor needs to be straight end to end and touching the pit wall whenever possible.
6. Weld 2" X 2" X 1/4" – 3" long angle iron legs (supplied by the installer to each leg. Welding the legs to the in-bed steel will be done after all the sections have been aligned.
7. Move the next section of conveyor up to entrance section and raise both ends to level. Install a bolt and nut on each side to loosely hold the two sections together. Again use the torpedo to level the top deck, check level across to passenger side tire area, align with string line and weld on legs. Be careful that the existing aligned section is not moved while raising and attaching the new section.
8. Continue with remaining sections in this manner to complete alignment.
9. Now pull a string line down the center of the top deck to check for straightness from one end to the other. This method will keep the string from touching any

part of the conveyor but close enough to each section of the top deck that misalignment is easy to spot. Move side to side if adjustment is needed. Double check each section with the torpedo level and 6' level and tubes.

10. Weld legs to in-beds and use additional 2" X 2" X 1/4" –3" long angle to weld top of conveyor to top outside edge of pit. ***CAUTION: USE AN ALTERNATING PATTERN WHEN WELDING TO PREVENT WARPING OR PULLING OF THE CONVEYOR. AS YOU MOVE DOWN THE CONVEYOR MAKE SURE THE MIDDLE AND LOWER DECKS ARE THE SAME HEIGHT AND EVEN WHERE THEY MEED ON THE SIDES. IF THEY ARE NOT, PUSHERS COULD JAM OR WEAR EXCESSIVELY.***
11. Entrance section needs to be welded to the 3" X 3" X 3/8" angle between the correlator pit and the conveyor pit.
12. Cut the exit end make up plate so that it fits from the conveyor to the exit conveyor pit wall. Support the plate by welding a 2" X 2" X 1/4" – 18"

FIGURE 2

NOTE: The Deck Plates And Both Chainways Must be Accurately Aligned At Joints To Function Properly.

INSTALLATION OF ENTRANCE ROLL BAR ASSEMBLY

(1) Roll Bars with shafts are provided, refer to Figure 3 and install guide rails starting with left hand rails.

FIGURE 3

1. Establish conveyor centerline at concrete apron
2. Mark off Dim. 'A' on back side of center line
3. Cut to appropriate length on C-3 Correlator.
4. Use as is-Do not Cut-C-4 Correlator.
5. Fit up guide rail and lock down bolt on shaft.
6. Lag hold down bracket to concrete with expansion bolt

Correlator	Dim 'A'
None	20-1/4"
C-3	20-1/4"
C-4	23-0"

ROLL BAR ASSEMBLY PARTS BREAK DOWN

ITEM	PART#	DESCRIPTION
1	804172	Roller Assembly SS C3/C4
2	804452	Outside Entrance Roll Bar Weldment SS
3	804453	Inside Entrance Roll Bar Weldment SS
4	804174	Roll Bar Shaft SS C3/C4"
5	623041	Washer SS Flat 3/4"

6	622833	Scr Set SS Sq. Cup Pt 3/8” X 1”

CONVEYOR ELEVATION INFORMATION

FIGURE 4

Note: Shims used on rear wheel push to Raise conveyor level.

Figure 4 depicts the correct installation for the pit cover plates which span between a notch in the concrete and key stock placed on passenger side guide rail surface. These 3/16" diamond plates should not be ordered pre-cut until conveyor is set and anchored in place. Refer to S1 sheet.

CONVEYOR ELEVATION INFORMATION (Continued)

Rear Wheel Push

For a rear wheel push conveyor, it is recommended that the top deck of the conveyor be shimmed 3/4" higher than the level of the concrete for the tire on the passengers side of the car wash bay. This is a recommended starting point for installation, and due to the local conditions and actual pour of the concrete the distributor or installer will correct as needed. The actual shim height has varied around the world from approximately 0” to 1.5”. Concrete is not an exact science and may vary plus or minus 1/8” easily; this is why the installer must make the final decisions on the concrete elevations.

Front Wheel Pull

For a front wheel pull conveyor, it is recommended that the top deck of the conveyor be shimmed 3/4" below the level of the concrete for the tire on the passengers side of the car wash bay. This is a recommended starting point for installation, and due to the local conditions and actual pour of the concrete the distributor or installer will correct as needed. The actual shim height has varied around the world from approximately 0” to 1/5”. Concrete is not an exact science and may vary plus or minus 1/8” easily; this is why the installer must make the final decisions on the concrete elevations.

Conveyor Remodels

During times of remodeling existing sights, when the conveyors are replaced as is or when they are actually changed from front wheel pull to rear wheel push the offset in grade may even vary more as you must set your conveyor from the worst elevation dimension in the concrete.

HYDRAULIC INSTALLATION

FIGURE 5

Drive for the RCV Conveyor is a Char Lynn 2000 Series hydraulic motor coupled to a planetary gearbox; the drive sprocket is attached directly to the gearbox output shaft. Pressurized oil is from either an independent pump/motor/reservoir unit or one bank of a system proportionator. In either case 6 to 7-1/2 GPM of pressurized oil must be delivered to the drive unit from pump or proportionator location. Use 1/2" black iron pipe, schedule 80 for the pressure run and 3/4" minimum black iron pipe, schedule 40 return line, both lines are usually attached to the wall and run to the exit end of the conveyor. Mounted on the wall at the exit end of conveyor is the speed control unit; both pipe runs terminate here. (Refer to Figure 5) Plumb to speed control unit, then hydraulic drive motor. 1/2" hydraulic hose is used to plumb from the speed control valve to hydraulic drive motor. The run is to a chase way in concrete slab, which runs into the conveyor pit. The pressure and return hoses are routed through the chase way, as well as the case drain tubing. The pressure line should be connected to the motor or closest to the drive sprocket for proper rotation. The 3/8” tubing case drain is connected to a fitting on the side of the planetary Gearbox, and should run back to a fitting located on the hydraulic tank for optimum performance. A small clamp on fuel filter may be used to insure the quality of the oil return to tank. The hydraulic hose runs (pressure and return) should be 15 foot long maximum.

SPEED CONTROL VALVE
-8 Gal. Spool
-12 Gal. Spool

The speed control valve is a priority type, pressure compensated flow control unit. The 3 ports are marked Pressure-"in", Controlled Flow-"CF" and Excess Flow-"EF". CF Port is always connected to motor inlet; EF Port is plumbed to tank return.

An Adjustable pressure relief is built into the unit; the vendor presets this relief at 1500 PSI, use & time may change this setting to a lesser pressure. The adjustments screw is beneath the cap; turning the screw clockwise increases pressure setting. Adjust in one-fourth turn increments.

This unit is to be located at chest height on a wall & within 15 feet of the hydraulic drive motor. Field servicing of the speed control valve, other than the pressure relief, is not recommended.

FIGURE 6

Item#	Part#	Description	Qty
1	365666	Priority Valve, Brand, 1/2" 8 GPM	1
1a	320796	Priority Valve, Brand, 1/2" 16 GPM	
2	365667	Spool, Brand Priority Valve 8 GPM	1
2a	365668	Spool, Brand Priority Valve 16 GPM	
2c	365669	O-Ring Kit, Brand Priority Valve 1/2"	1
3	245761	Mounting Plate	1
4	040493	Nut – ESNA 1/4" NC	2
5	089631	SCR Hex 1/4" NC x 2-1/2" Lg.	2
6	015412	Washer 1/4" Flat	6
7	014852	Ftg. Hyd. Elbow 90° 1/2" x 1/2"	1
8	035758	Ftg. Hyd. Tee 1/2"	1
9	018648	Ftg. Hyd. Conn 1/2" x 1/2"	1

HYDRAULIC TAKE-UP INSTALLATION

A hydraulic chain tensioner is provided on those conveyors 150 ft. or longer, and is an air/oil closed circuit arrangement. The system includes a cylinder, oil pot, flow control valve, air pressure regulator and tubing. Refer to Figure 76 in installing and note that oil pot, valve and air pressure regulator are mounted on the wall adjacent to the take-up end of conveyor.

FIGURE 7

Item#	Part#	Description	Reqired
1	717884	Cylinder Assy. Take-Up Air/Oil	1
2	344069	Washer – Stl. 2-5/8” OD x 1” ID x 1/4" Thk	1
3	055244	Nut – 1” – 8-UNC	1
4	055236	Nut – Jam – 1”-8-UNC	1
5	313361	Elbow – Poly Flo – 1/2" PF x 3/8” NPT 90°	1
6	024604	Tubing – 1/2" Nylon	20 ft.
7	037002	Tubing – 1/4" Nylon	40 ft.
8	058131	Valve – Flow Control – F30B	1
9	058073	Oil Pot – 1 Qt. Monier 2-1750	1
10	029413	Air Regulator - 1/4" Mini	1
11	800974	Mounting Bracket – Oil Pot	1
12	307165	Connector – Poly Flo – 1/4" x 1/4" NPT	3
13	313452	Connector – Poly Flo – 1/2" x 1/2" NPT	3

ELECTRICAL CONTROLS

Conveyor electrical controls are provided to call up a pusher assembly from the second level to the tire rolling surface on-demand. Also to cancel the command after two pusher assemblies are at the tire rolling surface. Refer for Figure 9 for placement and installation of roller cancel switch, also the optional automatic roller raiser switch.

Figure 8 is a wiring diagram in and out of control unit, also a schematic of the arrangement. Note the 120V AC is required at the control unit; locate this unit on the wall at a suitable spot. The air trio (filter, regulator and lubricator) is also wall mounted, as is the 4-way solenoid valve. Wire and plumb the units in accordance with Figure 8.

FIGURE 8
WIRING DIAGRAM

Installation – Roller Switch & Automatic Roller Up

FIGURE 9
COMPONENT LOCATION

Installation – Roller Raiser Control Kit – Conveyor

FIGURE 10

FIGUIRE 11
ROLLER CANCEL SWITCH

Parts Break Down
Installation Roller Cancel Switch & Automatic Roller Up

Item#	Part#	Description	Qty
23	021998	Bell Box – Single – 3 Hole # 250	1
22	229252	Roller + Auto Roller Push Button Station	1
21	229286	Limit Switch Assy. W/3'-0" SO Cord & 18" Wand	1
20	717520	Static Hose Treadle Assy	1
19	323626	Pressure Switch – N.C. Master Signal #32	1
18	024505	Tubing – Nylong – 1/4"	50 ft.
17	028746	Cover – Single Gang Bell Box	1
16	019109	Wire Connector – Yellow Scotch Lock	3
15	189902	Connector – Strain Refief – 3/8"	4
14	017178	Cap Screw – Hex ¼ - NC x 1" Long	8
13	016022	Hex Nut – 1/4 - 20 Unc	8
12	015412	Flat Washer – 1/4"	8
11	111633	Valve – Exhaust Control – 1/4" MV – 10	1
10	018812	Fitting – Nylon #268P	5
9	027904	Fitting – Poly Flo # 269P	2
8	024612	Tubing – Poly Flo 3/8"	100 ft.
7	133520	Limit Switch Assy. W/3'-0" SO Cord & 8" Wand	1
6	022004	Bell Box – Single	1
5	365108	4-Way Sol. Valve-24V Coil-RexRoth P69294-1 3/8" PF	1
4	028084	Air Trio – Mini	1
3	341875	Fork Cylinder – 1-1/2" Dia. 4-1/2" Stroke	1
2	229260	Roller Push Button Station	1
1	229245	Roller Control Unit	1

Parts Break Down
Installation – Roller Raiser Control Kit – Conveyors

Item#	Part#	Description	Qty
6	016295	Nut – 1/4" NF Hex	2
5	017178	Cap Screw – ¼ - 20 UNC x 1" Long	2
4	309898	1/8" Dia. X 8" Long Wire Wand	2
3	171421	Limit Switch Assembly w/o Wand	1
2	176818	1/8" Dia. X 24" Wire Wand	1
1	229286	Limit Switch Assembly	1

INSTALLATION OF PULSE SWITCH KIT
ASSY. # 755579

BEFORE INSTALLING: Make sure the circuit breaker(s) that furnishes power to the conveyor is turned off and locked out.

Apply thread dressing and lock washer to the 1/2" UNF x 7” hex bolt. Insert into the center of the magnet disk face, head of bolt on magnet side. Next spindle plastic roller 2” x 5-3/4” on bolt. Disk assembly in hand, magnets facing away from conveyor, place hex bolt into threaded center hole of driver motor shaft. Turn hex bolt clockwise until wrench tight, centering plastic roller.

Apply thread dressing to the 3/8” x 3-3/4” hex bolt. Insert bolt through leg side of pulse switch holder (See Figure 14). Spindle Plastic roller 2-1/2” x 2-3/4” on hex bolt. Insert threads of hex bolt through one of two slots in upper frame re-enforcement. Place 3/8” cut washers and ESNA nut on hex bolt and tighten.

WARNING!
KEEP HANDS, FEET, TOOLS AND CLOTHES OUT OF DRIVE GEAR AND PATH OF CONVEYOR

READ ABOVE WARNING. Run conveyor. Check to see if magnet disk is running true with the sprocket. Disk should not wobble. If wobbling, lock out breaker. Loosen 1/2" x 7” UNF hex bolt and rotate magnet disk. Tighten and repeat process until disk runs true.

Start 1/4" x 3/4" hex cap screw into one of the two holes that hold the magnet switch. Slide magnet switch into pulse switch holder between the protective brackets. Tighten the 1/4" x 3/4" hex cap screw to hold magnet switch. Insert 1/4" x 1” hex cap screw into second hole and tighten to secure magnet switch. Magnet switch should be set 1/4" to 3/8” between face of magnet switch and magnets. Pull wire cable to P.C.U. or J box, making sure the cable is clear of running parts and conveyor. Connect the two wires; Black to pulse switch terminal ch. #2 and Red to 24 volts. Install cover plates and test pulse switch. The computer Pulse switch L.E.D. should flash once for each magnet per revolution.

For installations where there is no setback on the conveyor slab for the above mounting, turn pulse switch holder around and mount without the plastic roller to the inside of frame gusset. Use 2” x 1-3/8” boss behind magnet disk. Use the 1/2" UNF x 2-3/4” hex bolt to mount magnet disk.

INSTALLATION OF PULSE SWITCH KIT (Continued)
ASSY. #755579

FIGURE 12

INSTALLATION OF PULSE SWITCH KIT (Continued)
ASSY. #755579

FIGURE 13

ASSEMBLY OF CHAIN AND PUSHERS

Chain is shipped in sections consisting of a given number of pitches. The number of pitches in a section vary according to the roller spacing purchased D88K – 7'4" is standard.

Chain	Roller Spacing	Pitches/Section
D88K	7'4"	32
D88K	3'6"	16
667XC	7'4"	38
667XC	3'6"	19

Each pusher has (2) triangular attachment links in its assembly; place open end of one chain section onto attachment links and pin in accordance with Figure 15. When assembling the chain care must be exercised to mount pusher assemblies right side up and in proper direction. The chain must be oriented so that sprocket teeth bear against the outside of the formed barrel rather than the pin. See Figure 14.

When the chain is assembled, pull through conveyor by a rope, feed half the chain through the entrance end of the conveyor. The pusher assemblies can ride the tire rolling surface as if pushing an auto.

Feed the remaining half of the chain around the drive sprocket. Chain can be assembled at both ends. After chain is assembled, the compression nut on the spring shaft can be loosened to apply tension to the chain.

FIGURE 14

CHAIN ATTACHMENT INFORMATION

FIGURE 15

SHAFT ADAPTER INSTALLATION

The conveyor is shipped with the planetary gearbox factory assembled along with the drive sprocket and properly aligned. The hydraulic motor is not coupled to the gearbox for shipping and handling reasons.

A Sun Gear Kit (input shaft adapter) and motor bolt/seal kit are provided. The Sun Gear Kit includes the steel shaft adapter and a bronze bushing.

To install motor shaft adapter first remove plastic shipping cap from gearbox, insert the shaft adapter into gearbox male teeth first until it bottoms. The teeth engage a planet gear, so rotating shaft until the teeth mesh is usual practice. The opposite end of shaft has female splines cut to receive motor shaft splines. Slide the bronze bushing over the end; wipe the “O” ring gland clean and apply a thin coat of Vaseline to gland. Install “O” ring from motor bolt kit, insert motor shaft into female spline end of adapter and bolt up with fasteners provided.

FIGURE 16

FINE TUNING ADJUSTMENT

A. Roller Raiser

The roller raiser fork assembly has means to adjust the fork position along the conveyor center line as well as side to side. The side to side adjustment is to center the fork weldment and the pusher assembly. A cap screw and jam nut is located on either end of the fork bushing plate to accomplish this see Figure 17.

The longitudinal adjustment properly positions the fork as it is pushed against the underside of tire rolling surface. Incorrect positioning of the fork can result in a pusher assembly hang-up as it exits the trap door. This adjustment is accomplished by loosening the two nuts, which secure the fork busing plate to conveyor. If the bushing plate is moved the length of the cylinder clevis must also be adjusted. A nut is located on the cylinder rod so this adjustment can be made.

If fork is not tight against underside the tire rolling surface, due either to adjustment or lack of air pressure to cylinder, the pusher assembly will jam.

B. Chain Tension

The adjustment for the main driving chain is on the entrance section of the conveyor. It consists of a spring-loaded carriage, which supports the main idler sprocket, tension spring, an adjusting rod attached to the carriage, and a spacer tube over the adjustment rod. (See illustration below)

A hydraulic cylinder is provided for conveyors 150’ or longer. The conveyor arrives with a shipping nut on the adjusting rod. Remove this nut before tensioning chain.

Tighten the chain until spring is compressed on to spacer tube and connect chain.

The gearbox and sprocket are factory assembled and aligned. If no factory assembled, the sprocket must be positioned on gearbox at the center line of conveyor and alignment checked.

This is accomplished by placing a 5-foot long straight edge against the sprocket face. Measure distance from straight edge to conveyor structure at sprocket face. Also measure distance at end of 5-foot straight edge. If measurements do not agree, place shims between conveyor structure and motor mount plate until the measurements are the same.

FIGURE 17
ROLLER RAISER FORK ASSEMBLY

MAINTENANCE PROCEDURES

During the first four weeks, the wear of the conveyor chain is more abrupt. It should therefore be checked and links removed as stretching takes place. Thereafter, the chain should be checked every month. In checking the chain, be sure that the take-up nut has not bottomed against guide brackets. This prevents the spring from automatically adjusting for wear.

See Page 28, Figure 19 for lubrication points.

AIR TRIO (See Figure 18)

This unit consists of a filter, pressure regulator and oiler; the unit is installed on all Hanna equipment that uses air cylinders or valves. Its purposes are to filter the air, regulate its pressure and furnish oil in quantities necessary to lubricate the moving parts in an air cylinder or 2 and 4-way valves.

The filter unit requires daily draining of water accumulated in bowl. The regulator can be set for the pressure necessary to operate the valves or cylinders properly. The oiler can be regulated as to the amount of oil required. The oil level in its reservoir must be checked daily.

The amount of oil injected into the system is determined by counting the drops of oil falling in the sight gauge. Normally one drop of oil per cycle is sufficient. An adjusting screw governs the amount of oil feeding in. To increase the oil flow, turn in the direction of arrow on adjustments screw. To decrease the oil flow turn the adjustment screw in the opposite direction.

Norman operating pressure is 45 – 60 PSI on the gauge.

FIGURE 18
AIR TRIO

CONVEYOR TAKE-UP
Bushing Style
(current production)

FIGURE 19

CONVEYOR TAKE-UP PARTS BREAK DOWN
Bushing Style
(current production)

Item #	Part #	Description
1	742882	RCV Take Up Weldment
2	341876	Air Cylinder With Clevis
3	170167	RCV Hinge Weldment
4	164129	RCV Trap Door Pin 5/8” x 12’
5	805822	Entrance Trap Door
6	803942	RCV Roller Fork Weldment
7	253427	RCV Fork Bushing
8	254276	RCV Fork Bushing Plate
9	254268	RCV Slide Weldment
10	4253435	RCV Take UP Shaft
11	756056	Sprocket 12T Bushing Style Take UP
	733369	Sprocket 14T Bushing Style Take Up
12	253393	Take Up Drum Bushing
13	254946	RCV Slide Rail
14	720417	Spring Retainer
15	055269	RCV Spring 6” x 18”
16	801133	All Thread 1” x 24”
17	273847	Spring Travel Stop

CONVEYOR DRIVE ASSEMBLY

FIGURE 20

CONVEYOR DRIVE ASSEMBLY PARTS BREAKDOWN

Item#	Part#	Description	Qty
1	742841	Drive End Weldment	1
2	314989	Heco Model 16 Wheel Drive w/12.2” Char Lynn 2000	1
		(106-1034-006)	
3	231696	Motor Mounting Plate	1
4	068643	1/2" ESNA Nut	10
5	015453	1/2" Flat Washer	10
6	017483	1/2" Cap Screw Hex Nut HD x 2” lg. N.C.	8
7	017459	1/2" N.C. 1-1/4” lg. Cap Screw Hex HD	2
8	320101	Hyd. Ftg. HECO	2
9	231415	Sprocket – 12 Tooth 2-1/4” Bore	1
10	269910	Sprocket – 14 Tooth 2-1/4” Bore	
11	158436	1/2" x 1/2" x 2-7/8” lg. Key	1
12	192997	3/8” – 16 N.C. x 1-1/2” Cap Screw Sq. Set SS	2
13	256008	Drive End Cover Plate with Hinge	1
14	273839	Shaft	2
15	177873	Wheel	1
16	177881	Axle	1
17	017285	3/8” N.C. x 1 Cap Screw	2
18	015986	3/8” Lockwasher	2
19	722207	Trap Door	1
20	339853	Hair Pin Cotter	1
Alt.	231423	Sprocket – 12 Tooth – 2-7/16” Bore	
Alt.	269860	Sprocket – 14 Tooth – 2-7/16” Bore	
Alt.	275495	Sprocket -12 Tooth – 1-1/2” Bore	
Alt.	275297	Sprocket – 14 Tooth 1-1/2” Bore	

Pusher Assemblies – 6 Wheel Pusher

Low profile pushers are designed to ride approximately ½" lower than standard pushers. This design eliminates wear on tire brushes. Larger thrust wheels are designed to fit current production HIS pushers.

RCV6 Low Profile Pusher Assemblies

Part No.	Description
737122	C188 side plate, small thrust wheel
737130	C188 side plate, large thrust wheel
737148	D88K side plate, small thrust wheel
737155	D88K side plate, large thrust wheel
737163	667XC side plate, small thrust wheel
737171	667XC side plate, large thrust wheel
750372	D88K M-2 Att. large thrust wheel
750364	D88K M-2 Att. small thrush wheel

RCV6 High Profile Pusher Assemblies

Part No.	Description
717074	C188 side plate, small thrust wheel 2-1/14" Th
717082	C188 side plate, large thrust wheel 2-3/4" Th
717090	D88K side plate, small thrust wheel 2-1/14" Th
717108	D88K side plate, large thrust wheel 2-3/4" Th
717116	667XC side plate, small thrust wheel 2-1/14" Th
717124	667XC side plate, large thrust wheel 2-3/4" Th
717104	D88K M-2 Att. large thrust wheel
717033	D88K M-2 Att. small thrush wheel

Plastic Pusher Replacement Wheels

Item	Part No.	Description
1	270991	RCV Pusher Wheel 2.25 Dia. X 4.00LG (6-4 Pusher Only)
3	265827	RCV Thrust Wheel 2.50 Dia. X 2.75LG
3	249151	RCV Thrust Wheel 2.25 Dia. X 2.25LG
2	716977	RCV Pusher Wheel 2.00 Dia. X 3.38LG
1	716985	RCV Pusher Wheel 2.00 Dia. X 4.00LG

Pusher Assemblies – 4 Wheel Pusher

RCV-4 Heavy duty 4-Wheel Pusher Assemblies feature construction that facilitates grease retention in order to reduce wear.

RCV 4 Standard 4-Wheel Pusher Assemblies

Item	Part No.	Description
	803386	C188 Side Plates
	803387	D88K Side Plates
	803388	667XC Side Plates
	803400	Log Chain Attachment
2	289850	Wheel, Outboard – Steel 3-5/8” x 11/16”
3	286476	Axle, Pusher 5/8” x 9-3/4”
3	182303	Bearing, Ball 5/8” ID
4	291070	Roller, Inboard-Plastic 3-1/4” x 3-1/8”

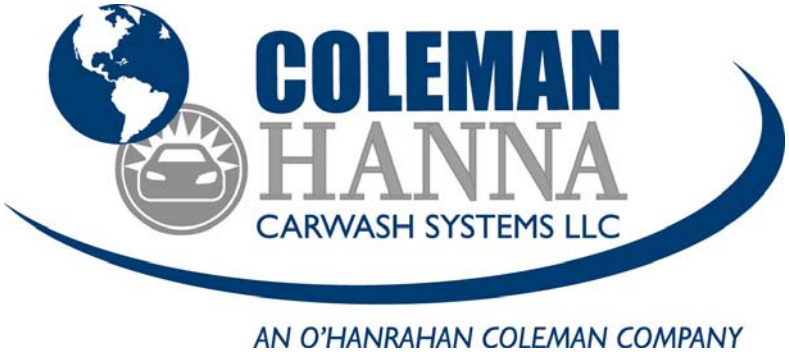
RCV4 Heavy Duty 4-Wheel Pusher Assemblies

Item	Part No.	Description
	803390	C188 Side Plates
	803391	D88K Side Plates
	803392	667XC Side Plates
	803394	Log Chain Attachment
1	283580	Pusher Body Weldment
2	146217	Wheel, Outboard – Steel 3-5/8” x 1-1/2”
3	286476	Axle, Pusher 5/8” x 9-3/4”
3	182303	Bearing, Ball 5/8”
4	144147	Roller, Inboard – Plastic 3-1/4” x 3”

Attaching Links for both RCV4 and RCV6 Pushers

Item	Part No.	Description
5	249425	Link attach for RCV C188, with 7/8 axle
5	270660	Link attach for RCV D88K, left hand
5	270652	Link attach for RCV D88K, right hand
5	270686	Link attach for RCV 667XC, left hand
5	270678	Link attach for RCV 667XC, right hand

Notes:



Coleman Hanna Car Wash Systems
Main Office
5842 West 34th Street
Houston, TX 77092
800-999-9878 ● 713-683-9878 ● Fax: 713-683-9624
www.colemanhanna.com