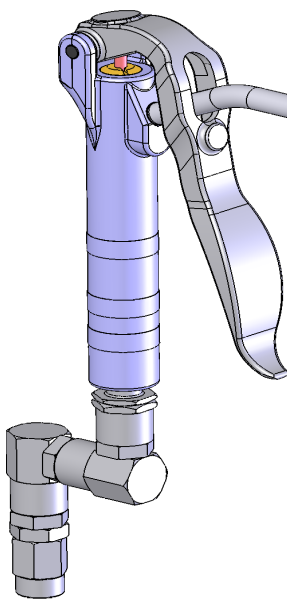


# **Balcrank**<sup>®</sup>

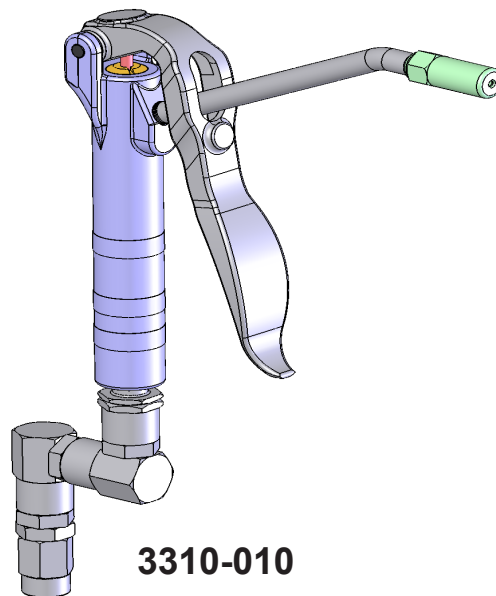
## Premium Series Grease Dispensing Handle One and Two Piece Body Styles

Models:

Handle w/Swivel and 36" Whip Hose	3310-020
Handle w/Swivel and 18" Whip Hose	3310-025
Handle w/Swivel and Rigid Lance	3310-010
Handle Only	3310-008



**3310-025**



**3310-010**

Thoroughly read and understand this manual before installing, operating or servicing this equipment.

Operation, Installation,  
Maintenance and Repair Guide

# General Safety

Thoroughly read and understand this manual before installing, operating or servicing this equipment.

## Guide to Safety Comments:

**NOTE:** Gives more explanation of a procedure, or a helpful hint.



**CAUTION:** Alerts user to avoid or correct a condition which may or could cause damage and/or destroy the equipment.



**WARNING:** Alerts user to avoid or correct conditions which could cause bodily injury.

Because this Grease Control Handle can be incorporated into pressurized systems, the following safety precautions should be observed:

- Check equipment regularly and repair or replace worn and damaged parts.
- Release pressures built up in the system before any service or repair is begun. See *pressure relief procedure*.
- Never alter or modify any parts of this product; doing so may cause damage and/or personal injury.
- Never aim a dispensing valve at any person. Personal injury may result.
- Do not operate this product above 5000 PSI (345 BAR) grease supply pressure (limited by the whip hose rating).
- Always read and follow fluid manufacturers' recommendations regarding proper use of protective eyewear, clothing and respirators.
- Observe all limitations which apply to selection of fluids which may be pumped by this product.



**WARNING:** Fluid emitted under high pressure from leaks and/or ruptured components can penetrate the skin and cause extremely serious bodily injury. If any fluid appears to penetrate the skin, apply emergency medical care at once. Do not treat the penetration as a simple cut. Tell your physician exactly what type of fluid was injected into your skin.



**WARNING:** Do not place your hand or fingers over the dispensing nozzle and/or aim the nozzle at a person at any time. Personal injury may result.



**WARNING:** Always use the following **Pressure Relief Procedure** whenever shutting off, cleaning, or in any way checking or servicing the control handle:

- (1) Disconnect air at the supply pump.
- (2) Point control handle outlet away from yourself and others.
- (3) Open dispensing valve until pressure is relieved.



**WARNING:** Never attempt to force lubricant into a fitting! If the lubricant is not flowing, stop dispensing immediately. Forcing lubricant into a fitting may cause excessive back pressure in the flexible extension. High back pressure could cause the extension and/or other components of the system to rupture, causing serious bodily injury.



**WARNING:** High Pressure. Keep clear of nozzle. 7,500 psi maximum inlet pressure



**NOTE:**

**BEFORE 3/07 - Two Piece Body Style**  
**AFTER 3/07 - One Piece Body Style**

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## Product Description and Specifications

The Premium Series High Pressure Grease Control Handle is designed for the following intended service:

- Single or multiple shot dispensing of automotive and industrial grease into standard ball coupling type grease fittings.
- Flow dispensing of automotive and industrial grease onto open surfaces for lubrication purposes.
- Operation with any hand operated grease pump up to a working pressure of 5000 PSI (limited by the whip hose rating).
- Operation with pneumatic grease pumps with a ratio of 50:1 or less, and used with supply air pressure of 100 PSI or less (limited by the whip hose rating).

The handle body is made of high strength steel. An attached whip hose allows flexible positioning of the hose end coupler for hard-to-reach grease application points. A z-swivel adapter allows freedom of motion of the handle relative to the high pressure supply hose.

## Installation

- Relieve system pressure. Use the pressure relief procedure on page 2.
- Attach the handle to the hose end thread, size 1/4 NPT(M).

- Pump grease through the grease feed line until all air is purged.
- Adjust the control handle trigger as described below. **(Two Piece Body Style Only)**
- The handle is ready for operation.

## Operation

The control handle is hand held and is operated by depressing the valve trigger. Grease is propelled by cycling the crank of a hand pump, or by the pumping pressure from an air-operated supply pump. Grease flow is proportional to the distance of movement of the trigger.

A trigger stop adjustment and a valve plunger adjustment allow calibration of handle operation for best response and ease of operation. **(Two Piece Body Style Only)**

### Lubricant Flow Adjustment (Two Piece Body Style Only)

Refer to product illustrations, page 7. Loosen the locking nut (15), then turn the adjusting screw (14) in or out to obtain the best trigger position. Lock the adjustment by tightening the nut (15).

### Trigger Adjustment (Two Piece Body Style Only)

Refer to product illustrations, page 7. To improve angular operating position of the trigger, turn the adjusting screw (16) to modify the trigger home stop position.

# Trouble Diagnosis and Remedy

Symptom	Probable Cause	Corrective Action
<ul style="list-style-type: none"> <li>■ Grease continues to flow after the trigger is released.</li> </ul>	<p><b>Two Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Adjusting Screw (14) may be out of adjustment.</li> <li>■ Valve Ball (8) or seat (10) may be obstructed or worn, or spring may be weakened.</li> </ul> <p><b>One Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Valve Ball (4) may be obstructed or worn, or spring may be weakened.</li> </ul>	<p><b>Two Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Adjust Lubricant Flow, see procedure on page 3.</li> <li>■ Service and Replace the valve ball &amp; seat, see procedures on page 4.</li> </ul> <p><b>One Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Service and Replace the valve ball or spring, see procedures on page 5.</li> </ul>
<ul style="list-style-type: none"> <li>■ Grease leaks around the valve plunger (6) two piece body style or (5) one piece body style.</li> </ul>	<p><b>Two Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Valve plunger (6) or U-Packing (5) may be worn or damaged.</li> </ul> <p><b>One Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Valve plunger (5) or V-Packing (6) may be worn or damaged.</li> </ul>	<p><b>Two Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Service and Replace u-packing, see procedures on page 5.</li> </ul> <p><b>One Piece Body Style</b></p> <ul style="list-style-type: none"> <li>■ Service and Replace V-packing, see procedures on page 5.</li> </ul>
<ul style="list-style-type: none"> <li>■ Grease is leaking from swivel assembly.</li> </ul>	<ul style="list-style-type: none"> <li>■ Swivel Packing may need to be tightened.</li> <li>■ Swivel Packings have failed.</li> </ul>	<ul style="list-style-type: none"> <li>■ Adjust collar/retaining nut. Tighten collar/retaining nut on swivel approximately 1/8 turn at a time and check for leaks again. Refer to SB5001 for High Pressure Z-Swivel.</li> <li>■ Replace Swivel Assembly.</li> </ul>

**NOTE:** Clean all parts thoroughly when disassembling. Check the parts carefully and replace worn or damaged parts.

## Repair Procedures

### Two piece body style

Refer to illustrations and parts list, page 6.

### Control Handle Disassembly

- Place the control handle in a bench vise, with the vise gripping the control handle body (1).
- Using a pair of adjustable open end wrenches, remove the whip hose (23) and coupler (24).
- Using an adjustable open end wrench, unscrew and remove the z-swivel (20).
- Using an adjustable open end wrench, unscrew and remove the whip hose fitting (22). Using a small pipe wrench, unscrew and remove the extension tube (21).
- Using a mallet and pin, remove the trigger pin (3).

Remove the trigger subassembly (12), (14), (15), (16), (17), (18), (19) and set aside.

- Using pliers, remove the valve plunger (6). Using a screwdriver, unscrew and remove the packing nut (4). Remove the packing seal (5).

- Using a strap wrench, unscrew and remove the hand grip (2). Then remove the following from the cavities in the body and hand grip: back-up washer (13), spring (11), gasket (7, two req'd), ball guide (9) and ball (10)

- If needed, disassemble parts from the trigger (12). Using pliers, remove the retaining ring (22). Then remove the adjusting spring (17), adjusting washer (18), and adjusting screw (16). Using a screwdriver and an open end wrench, remove the set screw (14) and hex nut (15).

### Control Handle Assembly

- Assemble parts from the trigger (12). First install the adjusting spring (17), washer (18), and adjusting screw (16). Using pliers, install the retaining ring (22). Using a screwdriver and wrench, install set screw (14) and hex nut (15).

- Place the control handle body (1) in a bench vise and clamp securely.

- Install the following in the cavities of the body and hand grip: back-up washer (13), spring (11), gasket (7, two req'd), ball guide (9) and ball (10). Using a strap wrench, install the hand grip (2).

- Install the packing seal (5). Using a large blade screwdriver, install and tighten the packing nut (4). Using pliers, install the valve plunger (6).

- Place the trigger subassembly (12), (14), (15), (16), (17), (18), (19) in position on the control handle. Using a small mallet and drive pin, install and center the trigger pin (3).

- Using a pipe wrench, install the extension tube (21). Using an adjustable open end wrench, install and tighten the whip hose fitting (22).

- Using an adjustable open end wrench, install and tighten the z-swivel (20).

- Using a pair of open end wrenches, install and tighten the whip hose (23) and coupler (24).

## Valve and Trigger Adjustments

Refer to **Operation** section, page 3 for valve and trigger adjustment procedures.

## U-packing Replacement

- Follow **Control Handle Disassembly** procedure steps, page 3, until u-packing is removed.

- Replace packing and follow appropriate sections of the **Control Handle Assembly** procedure, pages 3-4.

## Ball & Seat Replacement

- Follow **Control Handle Disassembly** procedure steps, this page, until ball and seat are removed.

- Replace ball and seat, then follow appropriate sections of the **Control Handle Assembly** procedure, this page.

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## Repair Procedures

### One piece body style

Refer to illustrations and parts list, page 7.

### Control Handle Disassembly

- Place the control handle in a bench vise, with the vise gripping the control handle body (1).

- Using a pair of adjustable open end wrenches, remove the whip hose (14 or 15) and coupler (9).

- Using an adjustable open end wrench, unscrew and remove the z-swivel (10).

- Using an adjustable open end wrench, unscrew and remove the whip hose fitting (16). Using a small pipe wrench, unscrew and remove the extension tube (8 or 13).

- Using a mallet and pin, remove the trigger pin (12). Remove the trigger (7) and set aside.

- Using pliers, remove the valve plunger (5). Using a screwdriver, unscrew and remove the packing nut (11). Remove the packing seal (6).

- Using a screwdriver, unscrew and remove the spring retainer (2). Then remove the spring (3) and the ball (4) from the body cavity.

## Control Handle Assembly

- Place the control handle body (1) in a bench vise and clamp securely.

- Install the ball (4) followed by the spring (3) into the cavity of the body. Using a screwdriver, install the the spring retainer (2) and tighten until snug.

- Install the V-packing seal (6). Using a large blade screwdriver, install and tighten the packing screw (11). Install the valve plunger (5).

- Place the trigger (7) in position on the control handle. Using a small mallet and drive pin, install and center the trigger pin (12).

- Using a pipe wrench, install the extension tube (8 or 13). Using an adjustable open end wrench, install and tighten the whip hose fitting (16).

- Using an adjustable open end wrench, install and tighten the z-swivel (10).

- Using a pair of open end wrenches, install and tighten the whip hose (14 or 15) and coupler (9).

## V-packing Replacement

- Follow **Control Handle Disassembly** procedure steps, this page, until V-packing is removed.

- Replace packing and follow appropriate sections of the **Control Handle Assembly** procedure, this page.

## Ball Replacement

- Follow **Control Handle Disassembly** procedure steps, this page, until ball is removed.

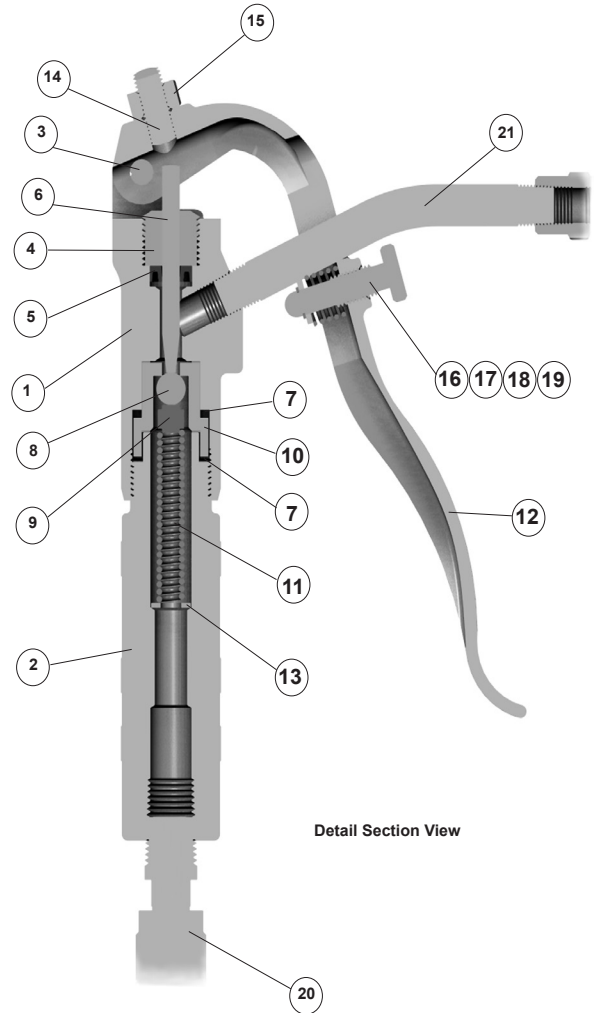
- Replace ball, then follow appropriate sections of the **Control Handle Assembly** procedure, this page.

# Grease Control Handle (2 Piece Body - Before 3/07) Parts List

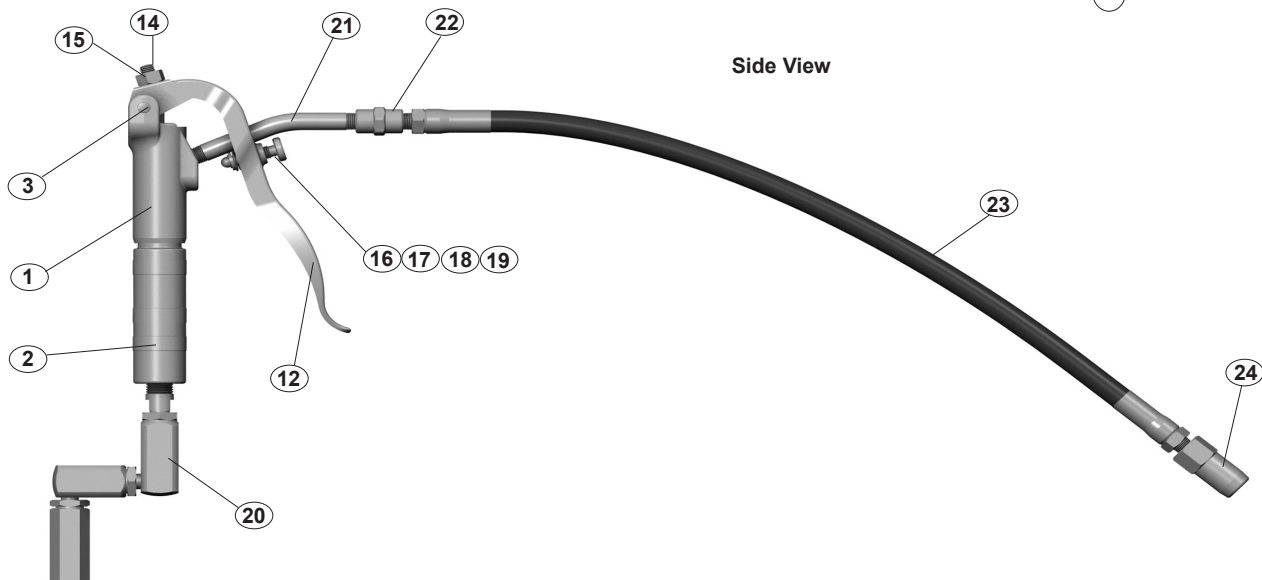
Handle Only 3310-008  
 Handle w/Swivel and Rigid Lance 3310-010  
 Handle w/Swivel and 36" Whip Hose 3310-020  
 Handle w/Swivel and 18" Whip Hose 3310-025

Note: Repair Kit 811310 is available for standard repairs, consisting of one set of star (\*) items.

Item	Part Number	Description	3310-020	3310-008	3310-010	3310-025
1	808217	Body	1	1	1	1
2	807979	Hand Grip	1	1	1	1
3	819484	Trigger Pin	1	1	1	1
4*	808218	Packing Screw	1	1	1	1
5*	806473	U-Packing	1	1	1	1
6*	808215	Valve Plunger	1	1	1	1
7*	808056	Gasket	2	2	2	2
8*	805791	Ball, 5/16" Dia	1	1	1	1
9	807609	Ball Guide	1	1	1	1
10*	807610	Ball Seat	1	1	1	1
11	806495	Valve Spring	1	1	1	1
12	808054	Trigger	1	1	1	1
13	807980	Back-up Washer	1	1	1	1
14	806497	Set Screw	1	1	1	1
15	806647	Hex Nut	1	1	1	1
16	807612	Adjusting Screw	1	1	1	1
17	807939	Adjusting Screw	1	1	1	1
18	807650	Adjusting Screw	1	1	1	1
19	808065	Retaining Ring	1	1	1	1
20	5310-018	Z-Swivel	1		1	1
21	806195	Extension Tube, Short	1			1
	806197	Extension Tube, Long		1	1	
22	830045	Fitting, Whip Hose	1			1
23	8390-003	Whip Hose, 36 Inch	1			
	8390-002	Whip Hose, 18 Inch				1
24*	5310-020	Hydraulic Coupler	1	1	1	1



Detail Section View



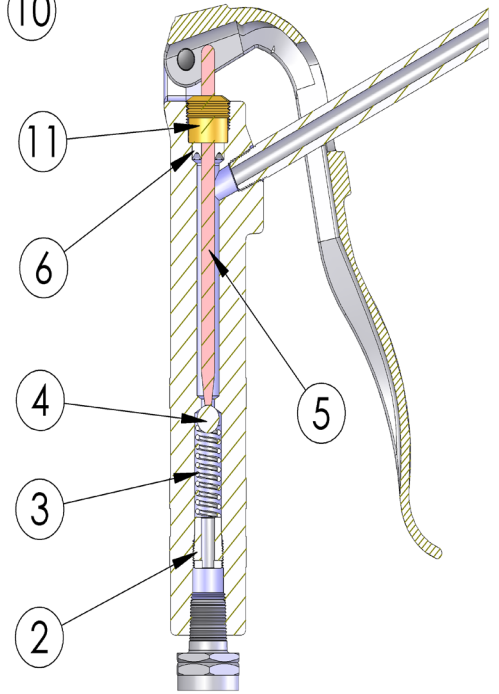
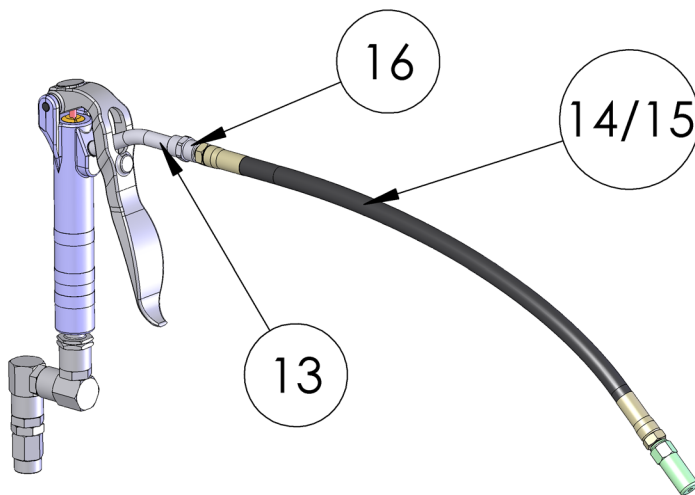
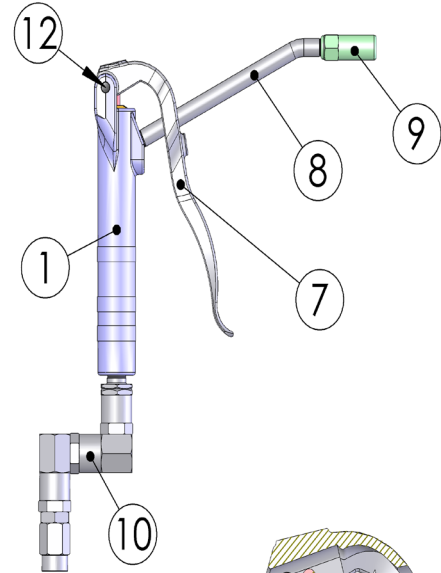
Side View

# Grease Control Handle (1 Piece Body - After 3/07) Parts List

Handle Only  
 Handle w/Swivel and Rigid Lance  
 Handle w/Swivel and 36" Whip Hose  
 Handle w/Swivel and 18" Whip Hose

3310-008  
 3310-010  
 3310-020  
 3310-025

ITEM	PART	DESCRIPTION	3310-008	3310-010	3310-020	3310-025
1	832216	BODY/HP. CONTROL HANDLE	1	1	1	1
2	832217	RETAINER/SPRING	1	1	1	1
3	808216	SPRING	1	1	1	1
4	805791	BALL - 5/16	1	1	1	1
5	832218	PLUNGER/HP. CONT. HDLE	1	1	1	1
6	806473	V-PACKING	1	1	1	1
7	832219	TRIGGER/HP. CONT. HDLE	1	1	1	1
8	806197	TUBE, LONG	1	1		
9	5310-020	SUPER GRIP HYD COUPLER	1	1	1	1
10	827642	SWIVEL-Z/H.P.		1	1	1
11	808218	SCREW/PACKING	1	1	1	1
12	819484	PIN, DRIVE	1	1	1	1
13	806195	TUBE, SHORT			1	1
14	832225	HOSE, WHIP, HP, 36"			1	
15	832226	HOSE, WHIP, HP, 18"				1
16	830045	FITTING, ADAPTER			1	1



Detailed Section View

## Balcrank Lubrication Equipment Warranty Statement

All Balcrank equipment sold by authorized Balcrank distributors is warranted to their original customer to be free from defects in materials and workmanship for a period of one year from the date of sale to that customer. Selected Balcrank equipment carries warranty terms for a more extended period as defined in the Balcrank Lubrication Equipment & Accessories User Price List, wherein a "lifetime" warranty represents a warranty period of thirty years. Within the initial one-year warranty period, Balcrank will repair or replace all Balcrank equipment determined by Balcrank to have defective materials or workmanship. For equipment carrying more extended warranties, Balcrank will repair or replace the product including parts and labor during the first full year and will provide parts only for the remainder of the warranty period.

This warranty applies only to equipment installed and operated according to applicable Balcrank Service Bulletins and Installation Instructions.

Any equipment claimed to be defective must be returned, freight prepaid, to an Authorized Balcrank Service Center (ASC). Upon receiving candidate warranty equipment from a customer, ASC will: 1) diagnose to determine the warrantable condition of the equipment, 2) submit, prior to repair or replacement, a request to Balcrank for warranty authorization, then 3) in cooperation with Balcrank, proceed with repair locally or forward the equipment to Balcrank and obtain replacement. If the part(s) or equipment items are found defective upon inspection by Balcrank, they will be repaired or replaced, and then will be returned to the ASC. If Balcrank finds the claimed part(s) or equipment not to be defective, the ASC will receive written authorization from the original customer, and then repair them for a reasonable charge to the customer, which will include all applicable parts, labor, and return transportation costs.

Optionally, the customer may submit certain eligible products directly to Balcrank for warranty return by using Balcrank Lubrication Equipment Direct Service Warranty Procedure. Eligible products are defined in the Balcrank Lubrication Equipment & Accessories User Price List. Refer to the Balcrank web site [www.balcrank.com](http://www.balcrank.com) for a copy.

Any equipment returned to Balcrank must have the Warranty Service Claim number (WSC#) clearly marked on the outside of the carton. Balcrank's sole responsibility is for defects in material and workmanship, and Buyer's sole and exclusive remedy hereunder, shall be limited to repair or replacement of the defective part or equipment.

This warranty does not cover, nor shall Balcrank be liable for repair or replacement of parts or equipment resulting from general wear and tear through use, or damage or failure caused by improper installation, abuse, misapplication, abrasion, corrosion, insufficient or improper maintenance, negligence, accident, alteration, or substitution of non-Balcrank parts.

Furthermore, the Warranty for Lubrication Equipment and Accessories does not cover the following specific conditions:

- Failure or damage to equipment caused by dirt or debris in compressed air lines and fluid lines. This includes, but is not limited to, clogged inlet filters, strainers, or regulators; fluid meters; control handles; fluid tips; and valves.
- Failure of normal wear parts including but not limited to: o-rings, packings, seals and valves unless originally improperly installed by the factory.
- Products placed in applications for which their use was not intended. Examples include but are not limited to Lubricant pump being used to pump solvents, or placing equipment intended strictly for indoor use outdoors
- Damage to equipment resulting from operation above and beyond Balcrank's recommendations.
- Leaks at air and fluid fittings and connections.
- Damage caused by thermal expansion whenever adequate pressure relief was not included in the system.
- Loose suction tubes on pumps.
- Incorrect hose reel spring tension, requiring adjustment.

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BALCRANK BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, OR OTHER DAMAGES OF SIMILAR NATURE, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST PRODUCTION, PROPERTY DAMAGE, PERSONAL INJURY, WHETHER SUFFERED BY BUYER OR ANY THIRD PARTY, IRRESPECTIVE OF WHETHER CLAIMS OR ACTIONS, LEGAL OR EQUITABLE, FOR SUCH DAMAGES ARE BASED UPON CONTRACTS, WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE. ANY CLAIM OR ACTION FOR BREACH OF WARRANTY MUST BE BROUGHT WITHIN TWO (2) YEARS FROM THE DATE OF SALE TO THE ORIGINAL CUSTOMER.

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