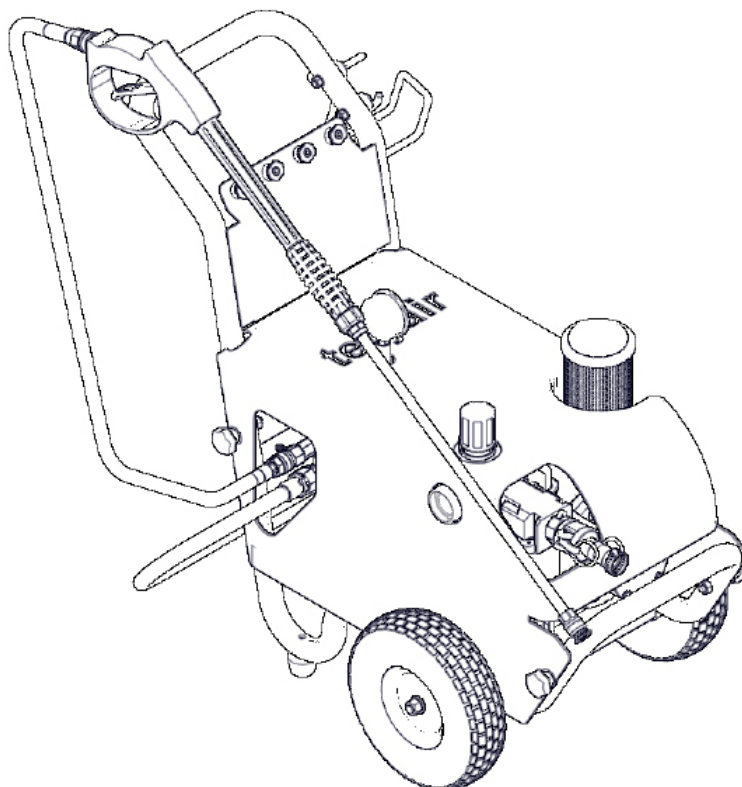




## Operation and Maintenance Guide



PW - 200

Models	Descriptions	IMPA Number
PW-200	Pneumatic Pressure Washer - 200 Bar	59 08 51

Read this manual carefully before installing, operating or servicing this equipment. It's the responsibility of the employer to ensure this manual is read by the operator. Please preserve this manual.

## Table of Contents

3	Introduction
3	Technical Data
3	Operating Instructions
5	Un Packing
6	Assembly & Diassembly
7	Safety checks before and after operating the High Pressure Washer
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## Introduction

Teryair Pneumatically Operated High Pressure Cleaners are designed for heavy duty cleaning operations in hazardous environments. These Pneumatic High Pressure Cleaners ensure safe cleaning of hazardous areas where inflammable gases & liquid exists. These heavy duty high pressure cleaners are used for removing Dirt, salt, rust deposits from Ship Decks / floors, Paint & graffiti off walls, Oil & Grease off engines.

## Technical Data

Model	Pneumatic Motor			Water Pressure generated		Water Flow rate		Air supply recommended		Dimensions L X W X H	Weight
	HP	kW	Speed	PSI	Bar	Gpm	LPM	Bar	PSI	mm	Kgs
PW-200	9	6.6	1500	2900	200	3.3	15	7	100	1000x520x750	75

### Intended Use

- Biological growth from concrete or steel constructions
- Hard caked mud from construction machinery like dozer tracks.
- Paint, dirt, mud from walls and floors
- Oil and grease from High Pressure Washer.
- Dirt, paint from sea going vessels.

### Prohibitive use

- Any use in an explosive atmosphere is prohibited
- Use on materials containing asbestos is prohibited
- Use by an underage, untrained or operator who is under the influence of drugs or alcohol.
- Use with non genuine spare parts or accessories is prohibited
- Use with safety devices un functional or in need of service is prohibited
- Do not use with hot water, this High Pressure Washer is for use with cold water.

## Operating Instructions

Following symbols are used through out this manual.



### Warning

This manual must be read and the operating instructions carefully followed, because of the high pressure developed, severe injuries can be caused by negligent operation



### Warning

Do not run the high pressure washer without a proper and adequate supply of potable water connected. Insufficient water supply will cause damage to the seals in a few minutes of use.



### Caution

Operators under 18 not allowed to operate this Pneumatic Needle Scaler. Operators must be made familiar with the instructions in this



### Warning

Operators under 18 not allowed to operate this High Pressure Washer. Operators must be made familiar with the instructions in this manual before attempting to operate the High Pressure Washer. Ensure that job site is clear of bystanders. The high pressure jets are capable of causing serious injury do not direct spray on people or animals. Do not spray electrified equipment.



### Caution

Use only genuine Teryair or Teryair approved accessories.

**Warning**

Use only for high pressure cleaning, do not use for any other application.

**Warning**

Safety and protective clothing, eyewear, headgear, ear protection, gloves and footwear to be worn during operation of this High Pressure Washer. Please see Table C at end of this section.

**Warning**

While starting operation and also during operation there is a considerable kickback force from the lance due to the high energy generated, be aware of this at all times and keep a firm control on the direction of the spray jet. Always use both hands to operate the gun.

**Warning**

This High Pressure Washer is not designed for use in an explosive environment.

**Warning**

Medical attention

Personnel who sustain injuries caused by high pressure jets **MUST** be given immediate hospital attention. It's important to apprise the medical attendants of the manner in which the injury has been caused, namely a high pressure jet.

**Caution**

Keep the gun trigger locked when not operating.

**Warning**

Completely turn off the machine and disconnect air supply line before attempting any service. Read Assembly and Dis assembly instructions.

**Warning**

Take care not to exceed the maximum 7 bar (100 psi) supply air pressure. Use a filter and regulator and lubricator as close to the equipment inlet as operation will allow to ensure a clean and regulated and lubricated air flow.

Safety wear mandatory while operating high pressure washer

**Warning**

Eye and face and ear protection must be worn at all times during operation of the High Pressure Washer. There is a chance of flying debris from the jobsite and the quality of wear should be such to protect against such flying debris such as flakes of the removed layer.

**Warning**

Eye and face and ear protection must be worn at all times during operation of the High Pressure Washer. There is a chance of flying debris from the jobsite and the quality of wear should be such to protect against such flying debris such as flakes of the removed layer.

**Warning**

Suitable heavy duty gloves must be worn at all times during operation.

**Warning**

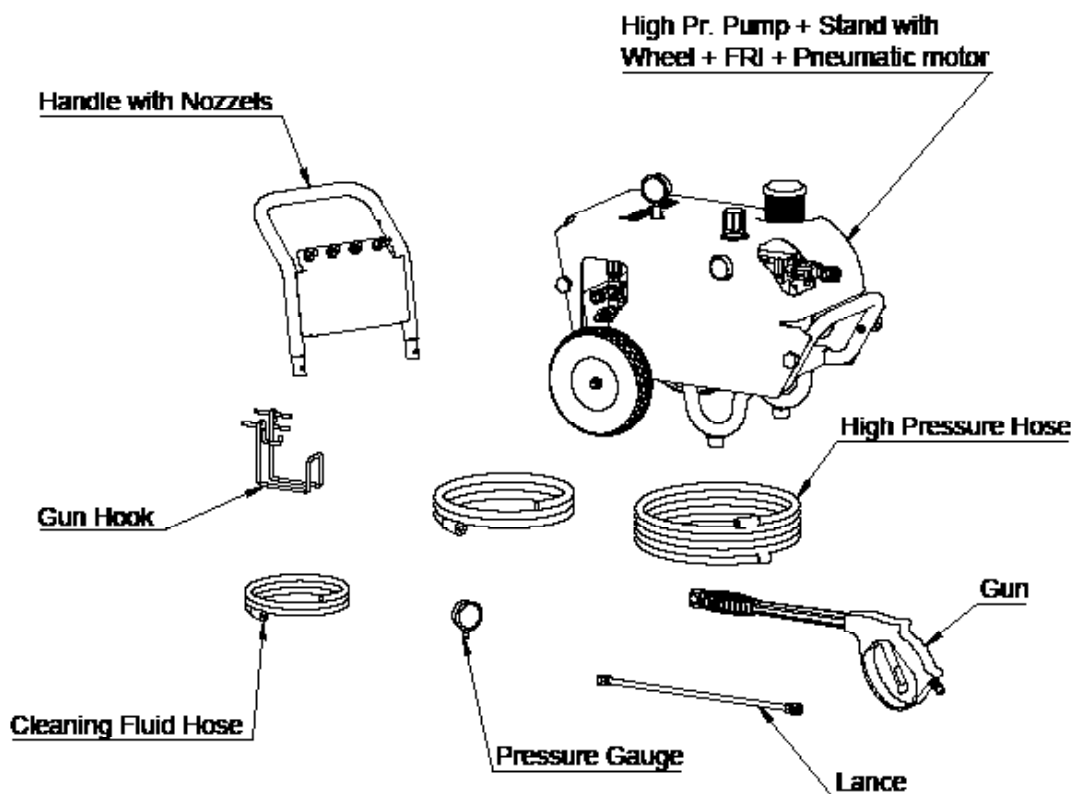
Suitable heavy duty gloves must be worn at all times during operation.

## Un Packing

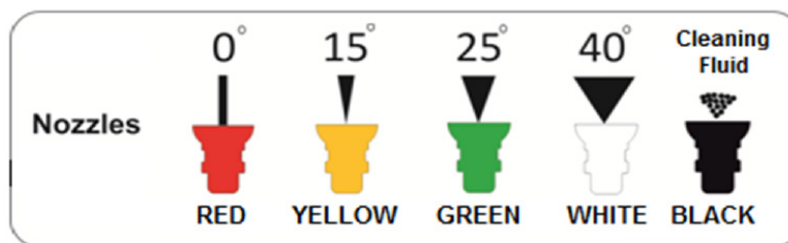
Identify all the components as shown earlier, contact your supplier if any parts are missing or damaged.

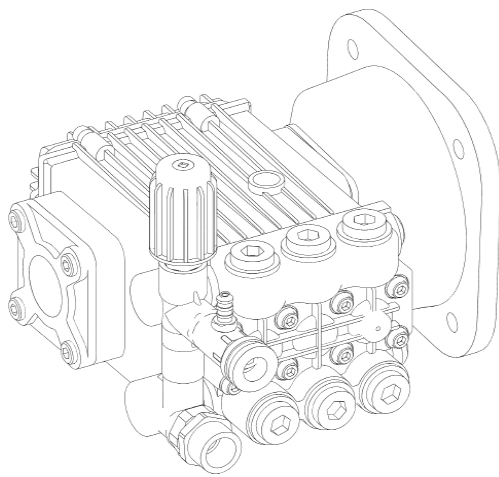
Be aware that minor visual differences may be noticed between actual motor/frame/pump and High pressure hoses because this components vary depending on the model ordered. This illustration is for identification only.

Unless specially requested the motor, pump and frame are factory fitted to each other.

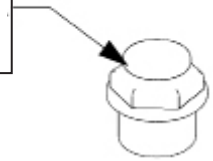


### Spray Tip detail

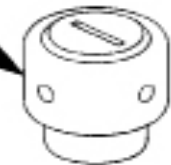




Plug (Red Colour) For Transportation Purpose Only To Replace With Breathing Cap (Shown As Above)



Breathing Cap



## Fill lubricating oil

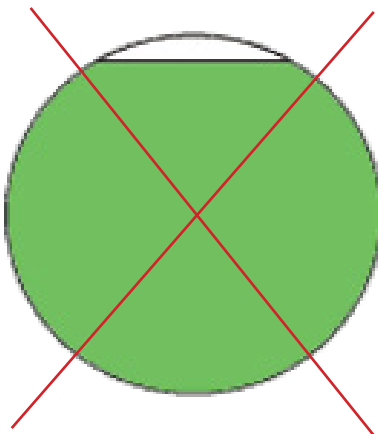
Make Sure to fill Oil in the pump as shown below before start.

Make Sure that the fitted oil plug is removed. Fill lubricating oil 10W15 up to half way mark of Oil Indicating Glass window.

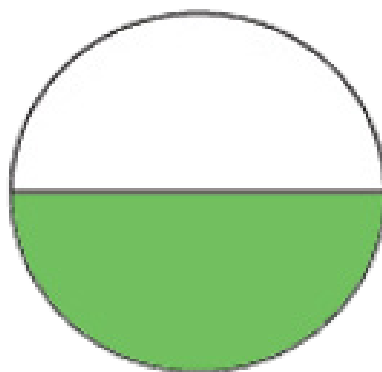
And Fit Breathing cap provided with pump. Do not fit Oil Plug.

Caution – a) If oil plug fitted after filling oil instead of breathing cap- Pump will over heat during use and will damage all internal parts of pump and machine will stop working / developing pressure.

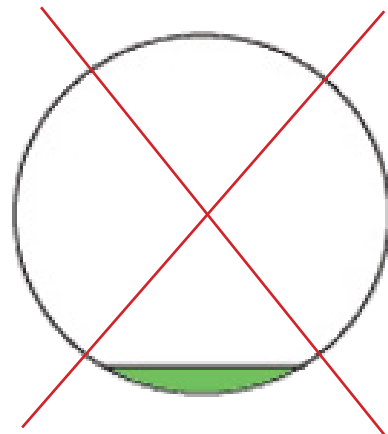
b) If oil is filled fully in pump up to top / maximum level of Oil indicating window, there will be no space for breathing of oil during use and pump will be over heated which will damage pump internal parts.



Excess Oil Level



Ok Level



Low Oil Level

## Safety checks before and after operating the High Pressure Washer

### Air Supply.

- Ensure that an adequate pressured air supply is available at 6 bar and at least 250 cfm.
- PW200 is supplied with a FRL unit. Always make sure to top up lubricator with specified oil grade \_\_\_\_\_. Failed to do so will cause pre-mature failure of air motor.

### Lubrication.

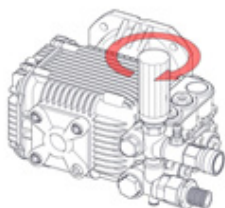
- The oil sump in the Pump unit should contain SAE15W40 grade oil.
- Ensure that the oil is at the half level by looking at the transparent window.
- If the number of hours has crossed fifty, drain out the oil by opening the Oil drain plug (4) at the side of the pump housing. Re fix the plug and open the Vented oil cap (4) to top up oil to the correct level (Refer fig on page 11). Thereafter repeat after every 500 hours of use or whenever the level of oil has dropped or looks contaminated.

### Check list before starting the High Pressure Washer.

- Check safety wear mentioned earlier in warnings.
- Check the hoses, especially the high pressure hoses for damage or leaks.
- Make sure that the air supply is maintain by a pressure regulator.
- Make sure that pneumatic hoses are not damaged and all the connectors between gun, lance, hoses and pump are secure.
- Make sure that the filter cone on the water supply in in place.
- Turn on the water supply.

### Starting the High Pressure Washer

- Hold the gun securely with both hands, ( the gun will kick back when first started )
- start the air supply, and depress trigger of the gun to start the jetting.
- Adjust the output pressure as required by the pressure regulator.



**⚠ Warning**  
keep distance from gun tip to job at least 8 inches.

**⚠ Warning**  
This high pressure washer is a high powered High Pressure Washer and it is imperative that it must be operated by a competent and trained operator. See warnings.

**⚠ Warning**  
The high pressure washer needs a constant supply of water during operation, any starvation of water to the High Pressure Washer will result in overheating and quick damage to High Pressure Washer.

**⚠ Warning**  
With the motor running and the jetting off, the high pressure water circulates in the circuit. DO NOT pause jetting for more than TWO minutes. Instead shut down the high pressure washer see "Shutting down" later in this section

### Changing spray nozzle tips

- Choose appropriate nozzle.
- Engage the trigger lock
- Pull back the collar
- Remove spray tip
- Install desired tip,
- Release collar
- Tug on tip to ensure proper seat

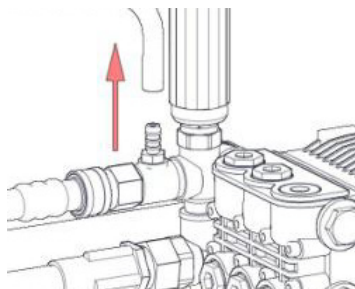
### Cleaning solution injection

All Teryair high pressure washers have a facility of injection of Cleaning Fluids to aid in the cleaning process. There are several brands & types of cleaning solutions available in the market today. Whichever you choose make sure it designed for use in high pressure washer. It should say so on the level, if it does not say it, don't use it.

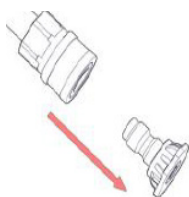
**Warning:** Never use bleach or bleach based products as they can damage the pump.

- Once you have your cleaning solution is ready to go, check to make sure that injector tube is securely attached to the pump as shown.





- Then insert the other end into the cleaning solution.
- A pressure washer will only siphon cleaning solution when in low pressure mode. So a low pressure soap nozzle must be used on the gun + lance (Refer Spray tip detail).



- **Caution**

After cleaning Fluid application it is recommended to disconnect the injection system to allow clean water to rinse through the system for few minutes.

## Shutting down

- DO NOT turn off water source before switching off the motor.
- Switch off the air supply and disconnect the air hose.
- Turn off the water source.
- Pull the lance trigger to relieve any residual water pressure.

## Storage

- Disconnect the gun from the high pressure hose and the hose from the pump.
- Hold gun vertically and depress trigger to remove all residual water from the gun and lance.
- Drain the hose too in a similar way.
- Remove the water supply hose and drain.
- Run the pump for ten seconds to eject any residual water that may have remained in.
- Store in a clean and dry place.
- Store under a tarpaulin is recommended.



## Troubleshooting

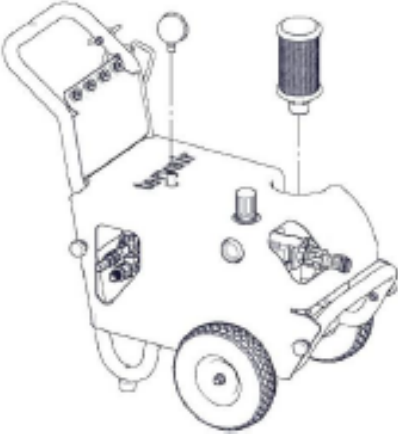
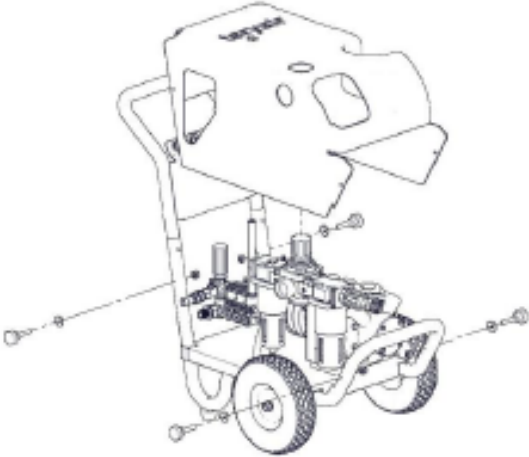
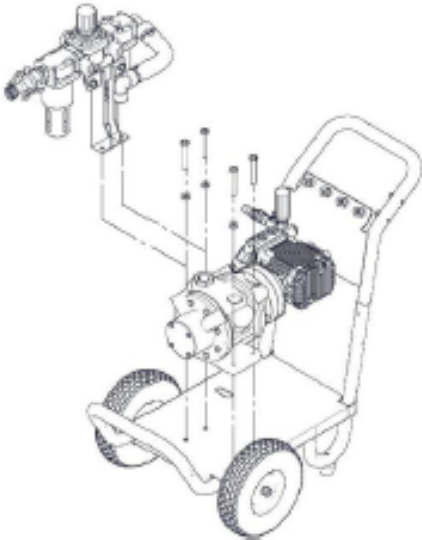
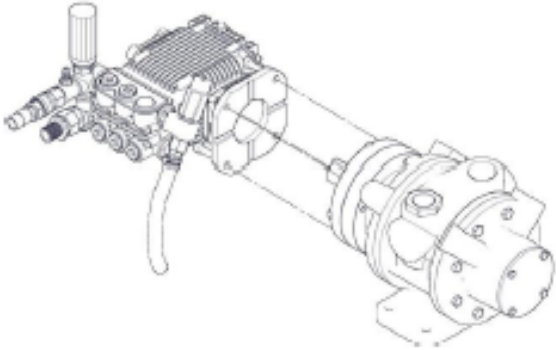
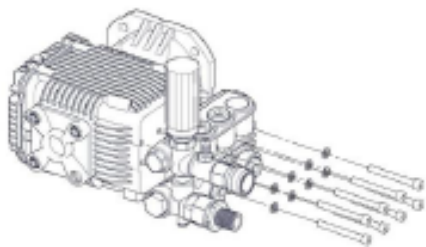
Serial No	Causes	Remedial Action
1	The motor does not turn after energizing	A loose connection Check connections and retry
2	The motor hums but does not turn	Low voltage Check voltage and verify correct and re try
		Pump is stuck Service Pump see Maintenance section
3	Pump is noisy	Pump is sucking air along with water Check hose fittings
		Valves are tight Service pump
		Bearings worn Service Pump
4	Low pressure when new	Water supply not adequate 20 litres per min at 20 PSI recommended
		Leak in high pressure hose fitting Check use sealant tape if needed.
		Nozzle obstructed Clean Nozzles, see maintenance section
		Water filter is clogged Clean and ensure clean supply
		Defective un loader valve Service Pump
		Air in hose Switch off motor, disconnect water hose from pump inlet and allow water to flow removing air bubbles, reconnect.
5	Cleaning solution not getting sucked	Cleaning solution filter clogged Clean or replace
		Wrong Cleaning fluids See section
		Cleaning solution residue clogging the pump Service pump
6	Low pressure after normal use	Pump needs service Service Pump
7	Water leaking at Gun	Check hose fittings Use sealant tape or replace fittings
8	Water leaking at Pump	Check fittings Use sealant tape or replace fittings
		If not solved Service Pump
9	Oil Leaking at Pump	Seals or O rings worn Service Pump
10	Pump pulsates	Clogged nozzle Clear nozzle

## Maintenance

### Servicing the Pump

Follow instructions in “Shutting Down” section earlier in the manual.

Dis assemble the hoses and the air hose from the High Pressure Washer and Air motor respectively.

<p>❖ Dis assemble the Muffler &amp; pressure gauge</p>  <p>❖ Remove the cover as shown</p>  <p>❖ Dis assemble the air hose conn. from the air inlet of Air motor.</p> 	<p>❖ Dis assemble the air hose conn. from the air inlet of Air motor.</p>  <p>❖ Dis assemble the un loader valve assembly from the pump.</p> 
--	--

## Diassembly and Re-assembly for PW-200

- a. Shut off air supply and allow residual Pressure to bleed off.
- b. Unscrew Camlock Coupling (33) from FRL Unit (10) & unscrew Inlet Filter with Pipe (23) & Discharge Hose (24) from High pressure pump (3).
- c. Take out Nozzle (5) from Gun (25) to replace it with new one. (If found damaged/worn-out)
- d. Unscrew High Pressure Gauge (22) from Extension Pipe (21) & unscrew Muffler (9) from Air Motor (2).
- e. Unscrew Knobs (27) with Washers (29) on Cover (26) & remove the cover (26) from Trolley (1).
- f. Loosen Jubilee clips (32) to remove Hose (11) from Hose Nipples (31) & Unscrew Elbow (7) from FRL Unit (10) then unscrew Hose Nipple (31) from Elbow (7)
- g. Unscrew Hex bolt (17) with Washer (18) from Bracket for FRL (8) to remove FRL Unit (10).
- h. Unscrew Hex bolt (19) and Hex bolt (20) with Washer (18) from Air Motor (2) & remove Air motor and High pressure pump assembly from Trolley (1)
- i. Unscrew Extension pipe (21) & Unloader Valve Kit (34) from High Pressure pump (3) & Loosen Jubilee Clip (36) to remove Hose (37) from Unloader Valve Kit (34).
- j. Unscrew Allen bolt (13) with Spring Washer (12) from High Pressure pump (3) to replace it with new one. (If found damaged/worn-out)
- k. Unscrew CSK Screw (13) & Allen Bolt (15) from coupling (4) & unscrew Allen Bolt (15) with Spring Washer (35) from Coupling for motor (5) to replace it with new one. (If found damaged/worn-out)

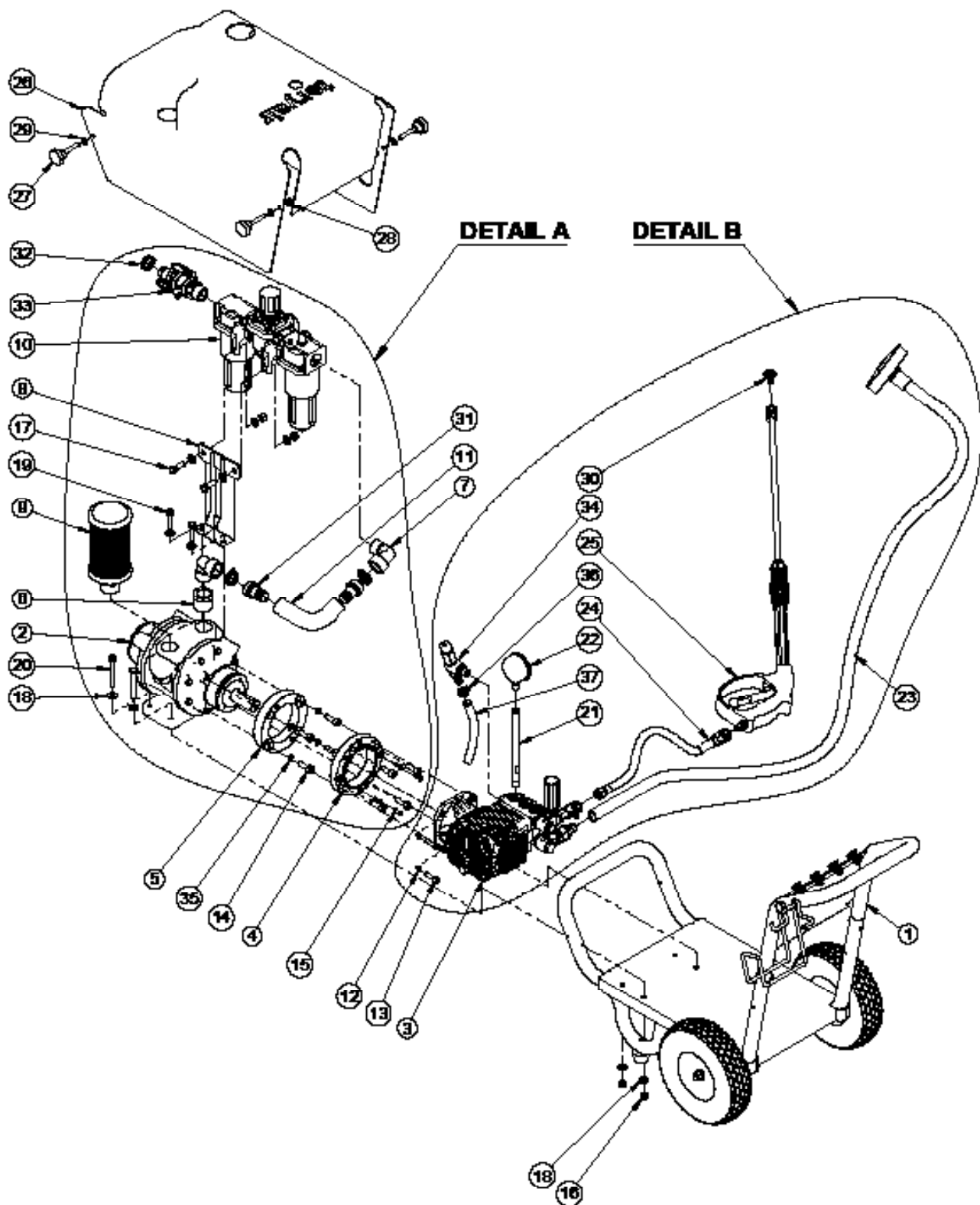
### High Pressure Pump:

- a. Replacement of Seal Kit:
  - Unscrew Allen Bolts (13) with Washers (12) from Pump Housing (10) & remove Pump Housing assembly from Pump Body (1).
  - Remove Seal Kits (17) from Pump Housing (10) and replace it with new one.
- b. Replacement of Valve Kit:
  - Unscrew Plug (14) (3nos on front side & 3 on top side) from Pump Housing (10) & remove Valve kit (15) from Pump Housing (10) and replace it with new one.
- c. Examine for any wear or damage to components and replace it if required. Now follow the above steps in reverse manner to reassemble the PW200.

## Bill of Materials for PW-200

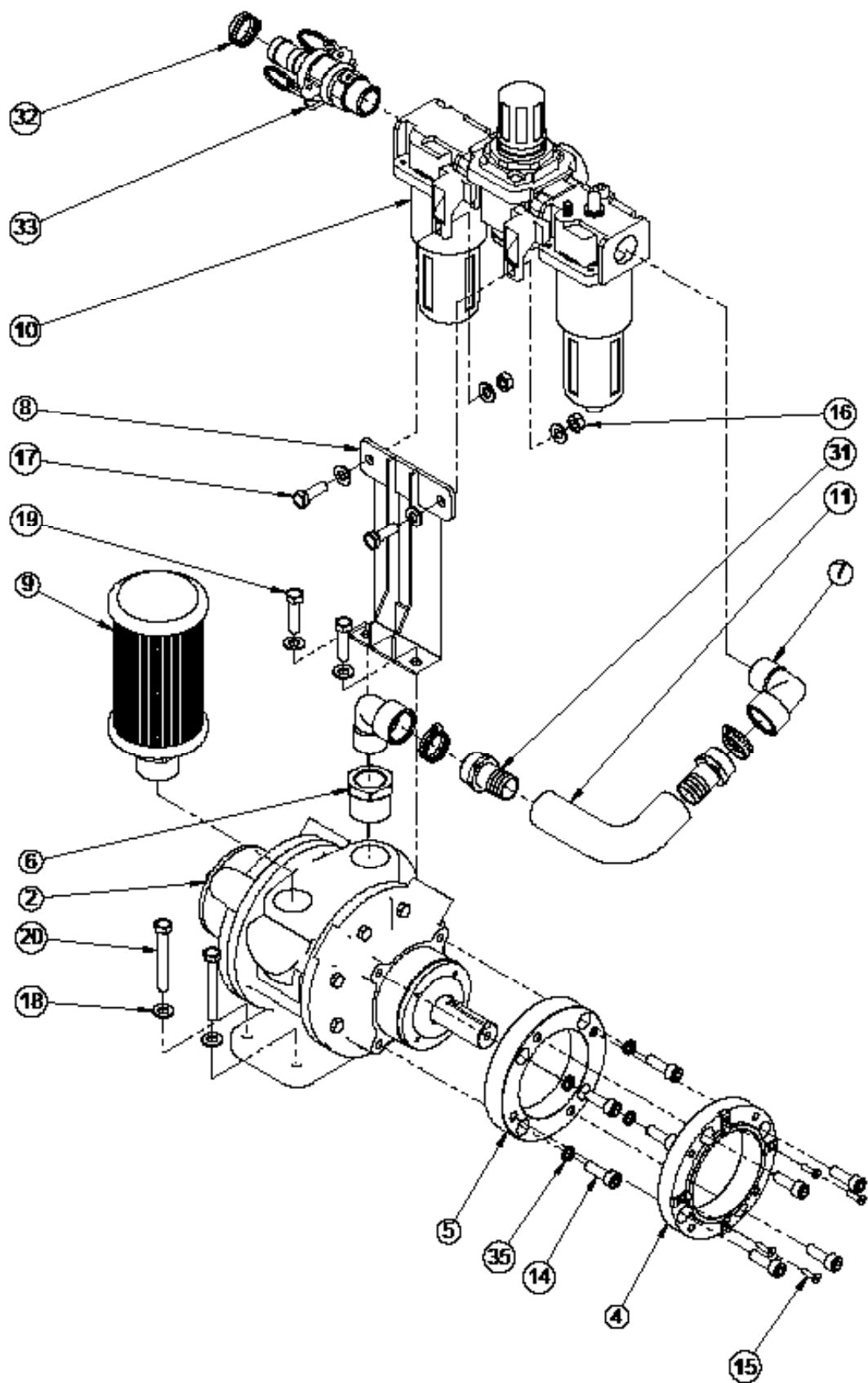
Illustration Number	Part Number	Description	PW-200
1	637 98 11	TROLLEY COMPLETE	1
2	637 98 24	AIR MOTOR	1
3	637 98 25	HIGH PRESSURE UNIT	1
4	637 21 04-R	COUPLING	1
5	637 21 03	COUPLING ON MOTOR	1
6	637 25 33	ADAPTOR	1
7	637 25 08	BRASS ELBOW	2
8	637 31 12	BRACKET FOR FRL UNIT	1
9	637 40 30	MUFFLER	1
10	FRL-25	FRL UNIT ASSLY.	1
11	637 40 14	HOSE	1
12	637 27 67S	SPRING WASHER	4
13	637 27 68S	ALLEN BOLT	4
14	637 27 19S	ALLEN BOLT	8
15	637 90 18	CSK SCREW	4
16	637 27 69S	HEX NUT	6
17	637 27 70S	HEX HEAD BOLT	2
18	637 27 71S	PLAIN WASHER	12
19	637 27 72S	HEX HEAD BOLT	2
20	637 27 73S	HEX HEAD BOLT	2
21	637 23 06	EXTENSION PIPE	1
22	637 90 17	HIGH PRESSURE GAUGE	1
23	637 97 26	INLET FILTER WITH PIPE	1
24	637 97 38	DISCHARGE HOSE	1
25	637 97 61	GUN	1
26	637 40 35	COVER	1
27	637 08 02	KNOB	4
28	637 27 74S	HEX NUT FOR KNOB	4
29	637 27 37S	WASHER FOR KNOB	4
30	637 97 60	QUICK CONNECT NOZZLE (5 PIECE SET)	1
31	637 25 34	HOSE NIPPLE	2
32	637 27 63S	JUBILEE CLIP	3
33	637 97 64	CAMLOCK COUPLING	1
34	637 97 62	UNLOADER VALVE KIT	1
35	637 27 75S	M10 SPRING WASHER	4
36	637 27 65S	JUBILEE CLIP	1
37	637 40 66	HOSE FOR UNLOADER VALVE KIT	1

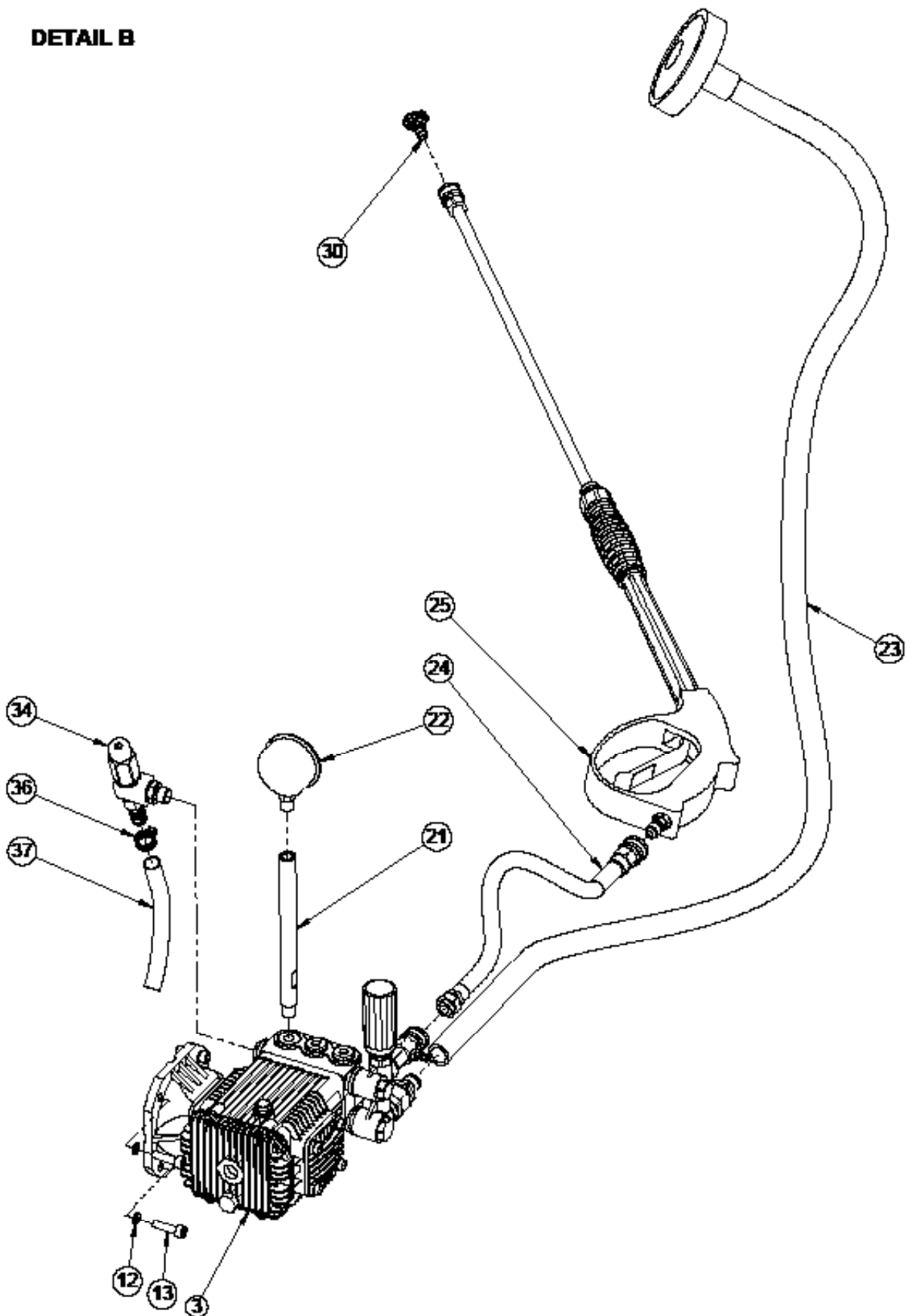
## Exploded View for PW-200



Exploded View Detail-A for PW-200

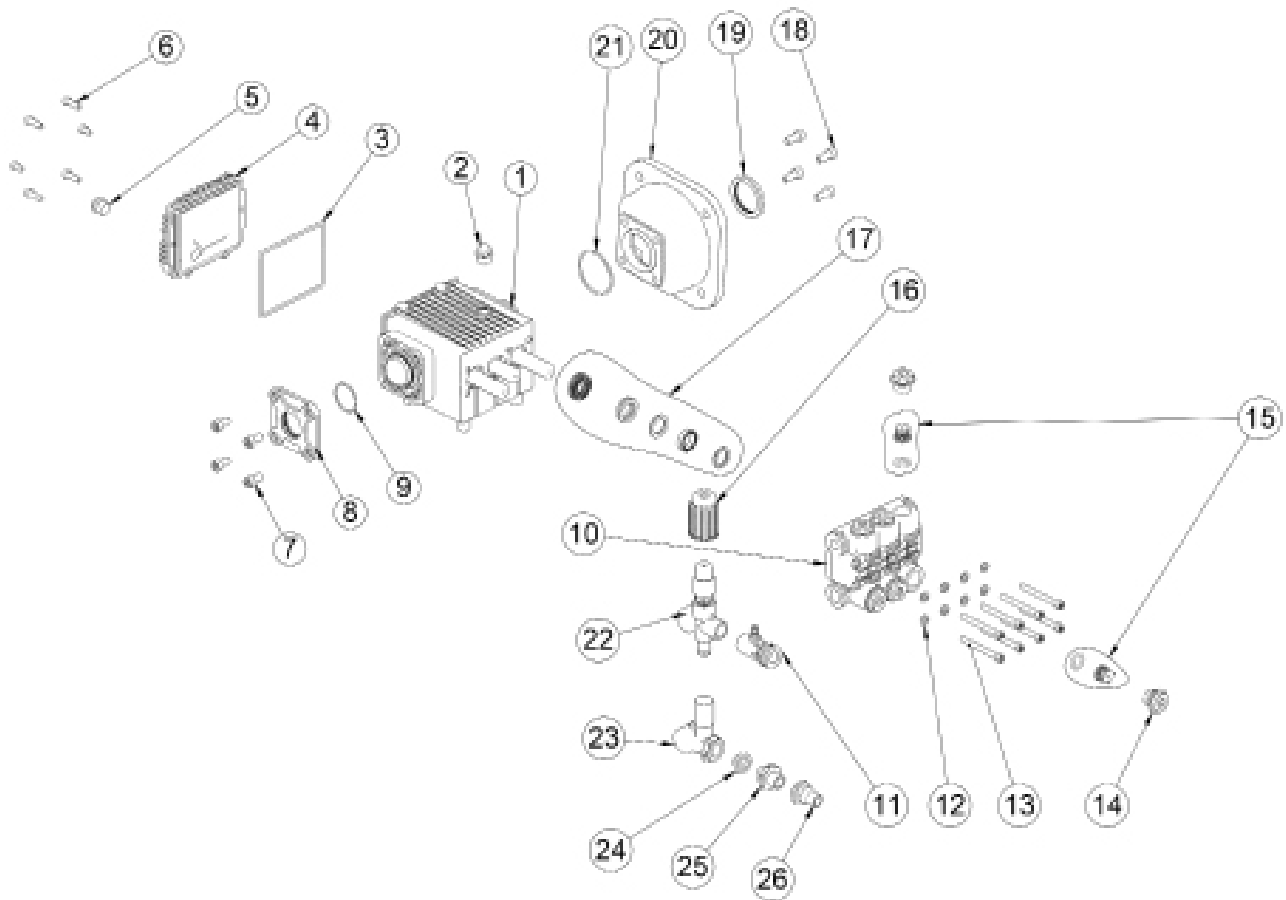
DETAIL A



**Exploded View Detail-B for PW-200****DETAIL B**



## Exploded View pf High Pr. Pump PW200 Bar



## Bill Of Material High Pressure Pump - PW200 Bar

Illustration Number	Part Number	Description	Qty
1	6429501	PUMP BODY	1
2	6429502	PLUG (RED) WITH O-RING	1
3	6429503	O- RING FOR END COVER	1
4	6429504	END COVER	1
5	6429505	DRAIN PLUG	1
6	6429506	BOLT FOR END COVER	4
7	6429507	BOLT FOR SAID COVER	4
8	6429508	SAID COVER	1
9	6429509	O-RING SAID COVER	1
10	6429510	PUMP HOUSING (BRASS) 110BAR	1
11	6429511	QC WITH CHEMICAL INJECTOR	1
12	6429512	WASHER FOR PUMP HSG.	8
13	6429513	BOLT FOR PUMP HSG.	8
14	6429514	PLUG WITH O-RING FOR PUMP HSG	6
15	6429743	VALVE REPLACEMENT KIT	6

Illustration Number	Part Number	Description	Qty
16	6429515	CAP FOR PRESSURE REGULATOR	1
17	6429742	SEAL REPLACEMENT KIT	3
18	6429516	BOLT FOR FLANGE	4
19	6429517	OIL SEAL FOR FLANGE	1
20	6429518	FLANGE	1
21	6429519	O-RING FOR FLANGE	1
22	6429520	UNLOADER VALVE ASSY	1
23	6429521	INLET ASSY	1
24	6429522	INLET STRAINER	1
25	6429523	INLET ADOPTER	1
26	6429524	INLET NIPPLE	1

## EU DECLARATION OF CONFORMITY

We hereby certify that the Listed Product stipulated below comply with all relevant provisions of the machinery directive (2006/42/EC) and the national laws and regulations adopting this directive.

**Description** : **Pneumatic High Pressure Washer**

**Model Number** : **PW-200**

Is in conformity with the provisions of the following European Directives: (2006/42/EC) Machinery Safety and Harmonized standards

ISO 12100-1: 2010: Safety of Machinery –general Principles for Design –Risk Assessment and Risk Reduction.

Registered Office : TERYAIR EQUIPMENT PVT. LTD.  
A-1, Tirupati Udyog Nagar, Sativali Road,  
Vasai(E), Palghar – 401 208. Maharashtra, India

Web site : [www.teryair.com](http://www.teryair.com)

Works : A-1, Tirupati Udyog Nagar, Sativali Road, Vasai East,  
Palghar – 401208, Maharashtra, India.

CE certification registration no – C E 16831

Issued by – BMQR Certifications Pvt Ltd.  
[www.cemarking-india.com](http://www.cemarking-india.com)

Valid Till – 03/11/2025

Signed for and on behalf of

  
TERYAIR EQUIPMENT PVT. LTD.

Place of Issue : Vasai



# Warranty Certificate

Every product manufactured by Teryair  
is built to meet the highest standards of quality.

Teryair warrants that the Products, accessories and parts manufactured or supplied by the company be free from defects in material and workmanship for a period of six months from date of Teryair authorized dealer invoice to customer, or one year from date of Teryair invoice to dealer, whichever is earlier. Failure due to normal wear, misapplication, or abuse is, of course, excluded from this warranty.

Since the use of Teryair products and parts is beyond our control, Teryair cannot guarantee the suitability of any product or part for a particular application and Teryair shall not be liable for any consequential damage or expense arising from the use or misuse of its products on any application.

Teryair does not warranty bought out products or components such as electric motors and hardware but will assist in directing warranty queries to the dealer/manufacture responsible. Teryair responsibility is limited solely to replacement or repair of defective Teryair products or components.

Dealer/End User shall have no right or remedy and Teryair shall have no liability or obligation under the warranty, if: (i) a Product is altered, changed, modified or tampered with in any way; (ii) a Product is damaged after deposit with the transporter for shipment; (iii) a Product is not properly preserved, packaged, stored, processed or handled after receipt; (iv) a Product is not used and maintained in accordance with Teryair's recommended operating and maintenance manuals, instructions and procedures, if any; (v) a Product is not properly incorporated or installed in, or not properly combined with, an Other Product; (vi) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, a failure, substandard performance or other issue with another product, material, component or part not supplied by Teryair; (vii) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, compliance with any design, specification or other specific requirement of Dealer/End User; (viii) a Product is used in a manner, with a substance or for a purpose other than the normal manner, substance and purpose for which it is intended or is otherwise subjected to abnormal use or service; (ix) a Product is subjected to a power surge, brown out or other similar occurrence; (x) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, normal wear and tear of such Product (including, without limitation, things such as worn seals, diaphragms, balls, O rings, gaskets, chisels, cutters, hoses and other such wearing components; (xi) the issue with a Product is directly or indirectly.

Model Number : PW Series

M. Yadav, Q.A. Manager  
(Company Seal)

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