

<sup>®</sup>  
**TUNDRA**

# 75 TONNE



## TUNDRA SHOP PRESS



**WARNING!**

Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating.  
Failure to follow the safety rules and other basic safety precautions may result in serious personal injury

## 1. OPERATION MANUAL

### Important Information.

#### Hazard Symbols Used in the Manuals.

This manual includes the hazard symbols defined below when the operations or maintenance job involves a potential danger. These symbols describe the level of danger involved in performing a job on the tool and the precautions to take to avoid the hazard.



Danger Labels indicate an imminently hazardous situation that if not avoided, **WILL** result in death or serious injury.



Warning Labels indicate a potentially hazardous situation, which if not avoided, **COULD** result in death or serious injury.



Caution Labels indicate a potentially hazardous situation, which if not avoided, **MAY** result in minor or moderate injury.

### Safety Requirements

#### Important

Make sure to read, understand, and strictly follow all safety related instructions before operation or maintenance of this equipment.

#### Intended Users

This manual is to be made available to all persons who are required to install, configure or service equipment described herein, or any other associated operation.

#### Application Area

The machinery described is intended for machinery production and assembling spare parts. It is used to press, size, assemble, rivet small parts in process and not for other use.

#### Personnel

Installation, operation and maintenance of the equipment should be carried out by qualified personnel. A qualified person is someone who is technically competent and familiar with all safety information and established safety practices with the installation process, operation and maintenance of this equipment; and with all the hazards involved.

#### Hazards



Personnel safety must have top priority. Thoroughly read the operation manuals to completely understand proper procedures before maintenance or inspection work.

**DANGER**

**Basic Safety Instructions**

Failure to comply with the following could result in serious injury or death.

- Periodic inspections or maintenance work must be carried out by two or more persons.
- Read and understand the safety manual.
- Read and understand all the attached manuals.
- Attach visible signs on the equipment so that anyone recognises and understands that maintenance or inspection is on going.
- Post a list with emergency phone numbers nearby the working area.
- Operator should be aware of what to do in case of an emergency (**refer to the Procedures for Emergency Situations**); know the location of the first-aid-kit, and the location of the fire extinguisher. Also learn how to use a fire extinguisher.
- Alert anyone around the Tool whenever planning to operate it during maintenance or inspection work.
- Always use proper hand tools and jigs during maintenance or inspections. Before operating the machine, check for any hand tools or jigs left inside it. For your own safety, NEVER try to remove them with the machine under operation. Consider SAFETY FIRST.
- The operator must wear protective clothing, gloves, safety helmet, shoes and ear protection during operating.
- To prevent back injury, heavy parts (or units), must be moved by two persons or more.
- Before powering the machine, alert the persons around it.
- Be careful not to be pinched by motion parts.
- Use ONLY CARRIER specified for the tool, and set it in a correct position.
- To avoid accidents, always be aware of any on-going work on the machine. Also, always stay focused on the job to be done.

**Safety Instruction**

**DANGER**

Before maintenance on pressured parts in the machine, you MUST release the pressure in the pressured system. At the same time, **DO NOT** stand in the direction facing the charger, the operator should be on the opposite side and remember **DO NOT** strike, press or transfer until it is discharged.

When it is necessary to exchange die after running, operators should wear glove or use tools to operate avoid being hurt. NOTE: Immediately stop operating the equipment if not working properly. Contact a certified technical support engineers for repair. The equipment must not be operated without approval from the certified technical support engineer.

Be careful when you are near the caution signs.

**CAUTION**

Safety for material used in the machine

The MSDS (Material Safety Data Sheet) information document of lubricant oils offered by supplier should be placed at the convenient place.

**Prohibited Dangerous Actions**

This section describes examples of dangerous actions not only during equipment operation, but also during maintenance and inspections. To avoid accidents, thoroughly read and understand the instructions below regarding dangers related to each mechanism prior to any maintenance or inspection work.

If the substances you use come under the ordinances concerning environmental pollution, follow the ordinances to discharge and dispose of such substances. If you commission industrial waste companies, you should confirm the way of final processing. Check for the security of people working around the Tool, before powering it back.

## 1. OPERATION MANUAL (Cont.)

Warning Label

**WARNING**

Below drawing show warning labels attached on the machine.



Hand crush force from above



Read operator's manual



Consult technical manual for proper service procedures



Must wear protective clothes



Must wear protective gloves



Must wear safety helmet



Must wear protective shoes



Must wear ear protectors

## Compliance with standards

European Community Directive	Manufacturer's Assurance	Harmonized Standards
Machinery Directive 98/37/EC	Declaration of Incorporation	Annex I of Machinery Directive 98/37/EC

## 2. SPECIFICATION

### Application Area

The machinery described is intended for machinery production and assembling spare parts. It is used to press, size, assemble, rivet small parts in process and not for other use.

### Dimension & Weight

Main body dimension: 800x1146x1925mm

Weight: 451kg

### Environmental conditions

Operating Temperature	-5C to +40C
Storage Temperature	-25C to +55C
Shipping Temperature	-25C to +70C (not exceeding 24 hours)
Altitude	-Equipment should be installed at an altitude of max 1000m.
Humidity	-Maximum 85% relative humidity at 40C non-condensing
Atmosphere	-Non-flammable, corrosive and dust free.
Ambient light	>300LUX
Noise	-85dB(C)

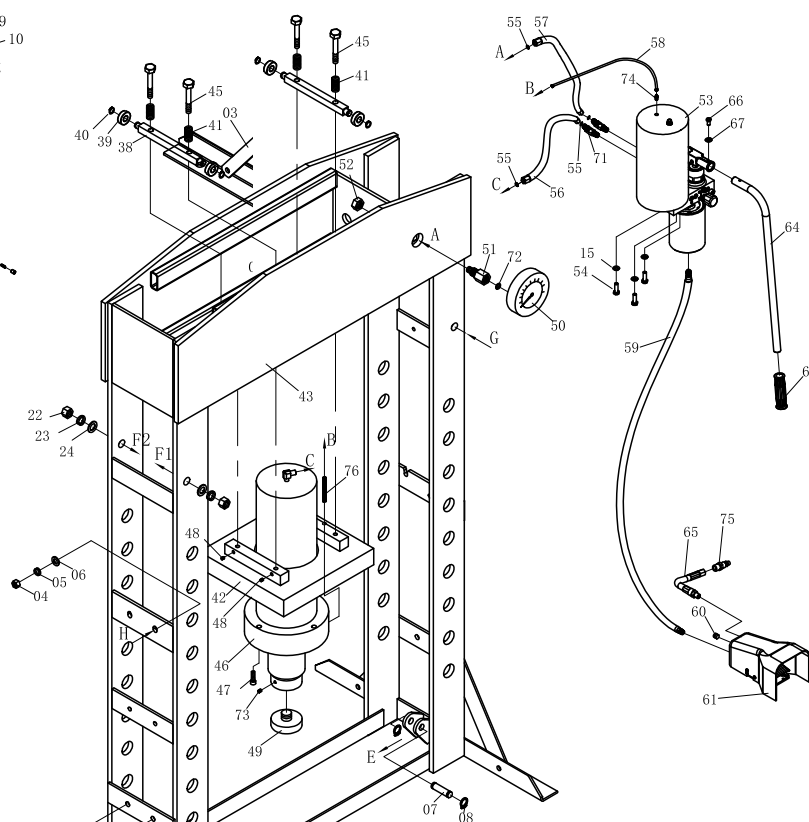
### Technical Capacity

#### Mechanical part

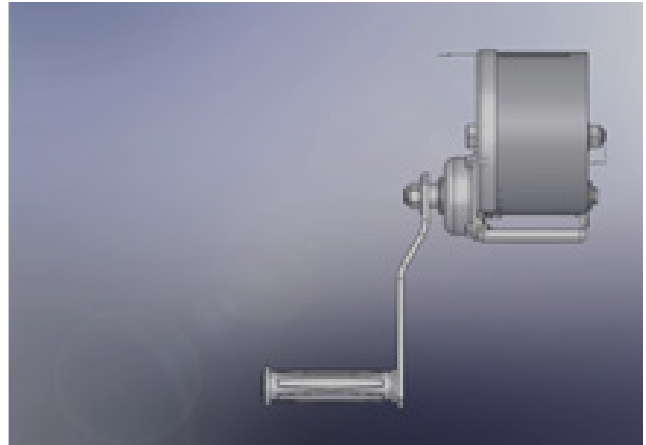
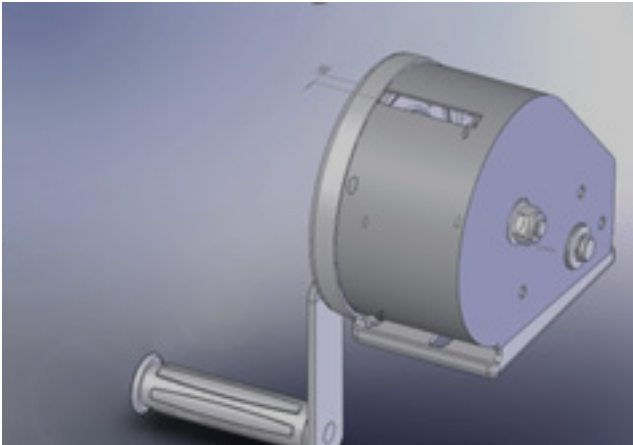
No.	Item		Unit	Value
1	Capacity		Ton	75
2	Stroke		mm	250
3	Pressure of Hydraulic System		MPa	59.92
4	Working Range		mm	170~884
5	Air Inert Fitting		NPT	1/4"
6	Air Pressure		MPa	0.75-0.85
7	Bed Size	Width	mm	800
8	speed		mm/s	1.2
9	Height above floor		mm	1925
10	Covered area	Width	mm	800
		Length	mm	1146
11	Gross weight		Kg	498

This diagram is an exploded view of a mechanical assembly, likely a piece of industrial machinery. It features numerous numbered components and several labeled points of interest. The parts are distributed across the frame, with lines indicating their relative positions and assembly paths. Key components include a large central frame (31), a motor or actuator (12), a control panel or housing (32), and various structural beams and supports (e.g., 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). Labels A, B, C, D, E, F1, F2, G, and H indicate specific points of interest or assembly points. The diagram is a technical drawing, likely a patent illustration, showing the exploded view of a mechanical assembly. The assembly includes a main frame (31) with various components mounted on it. Key parts include a motor or actuator (12), a control panel or housing (32), and various structural beams and supports (e.g., 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). Labels A, B, C, D, E, F1, F2, G, and H indicate specific points of interest or assembly points. The diagram is a technical drawing, likely a patent illustration, showing the exploded view of a mechanical assembly.

NO.	DESCRIPTION	Q'TY	NO.	DESCRIPTION	Q'TY	NO.	DESCRIPTION	Q'TY
01	Base	2	27	Cover	1	53	Pump Assembly	1
02	Bolt	14	28	Cover	1	54	Bolt	5
03	Support Bar	4	29	Screw	4	55	O Ring	4
04	Nut	14	30	Roller Pin	2	56	Oil Hose	1
05	Lock Washer	14	31	Working Bed	1	57	Oil Hose	1
06	Flat Washer	14	32	Steel Block	2	58	PU Hose	1
07	Roller Pin 2	2	33	Screw	8	59	Air Hose	1
08	Circlip	4	34	Spring	8	60	Plug	1
09	Big Roller	2	35	Small Roller	1	61	Air Valve	1
10	Cover 1	2	36	Cover 3	1	62	Cable Seelve	3
11	Cover 2	2	37	Cover 4	1	63	Steel Ball	8
12	Hand Winch	1	38	Tube	2	64	Handle	1
13	Plate	1	39	Roller	4	65	Air Hose	1
14	Bolt	3	40	Circlip	4	66	Bolt	1
15	Flat Washer	6	41	Spring	4	67	Flat Washer	1
16	Lock Washer	3	42	Mounting Plate	1	68	Handle Seelve	1
17	Nut	3	43	Frame	1	69	Cable	1
18	Pin	4	44	Lifting Bar	2	70	Cable	1
19	Circlip	8	45	Bolt	4	71	Fitting	2
20	Tube	4	46	Ram Assembly	1	72	Nylon Ring	1
21	Bushing	2	47	Screw	4	73	Screw	9
22	Nut	4	48	Screw	4	74	Hose Fitting	1
23	Lock Washer	4	49	Saddle	1	75	Fitting	1
24	Flat Washer	4	50	Pressure Gauge	1	76	Spring	1
25	Circlip	8	51	Gauge Fitting	1			
26	Roller 3	1	52	Nut	1			



### Fixed guards



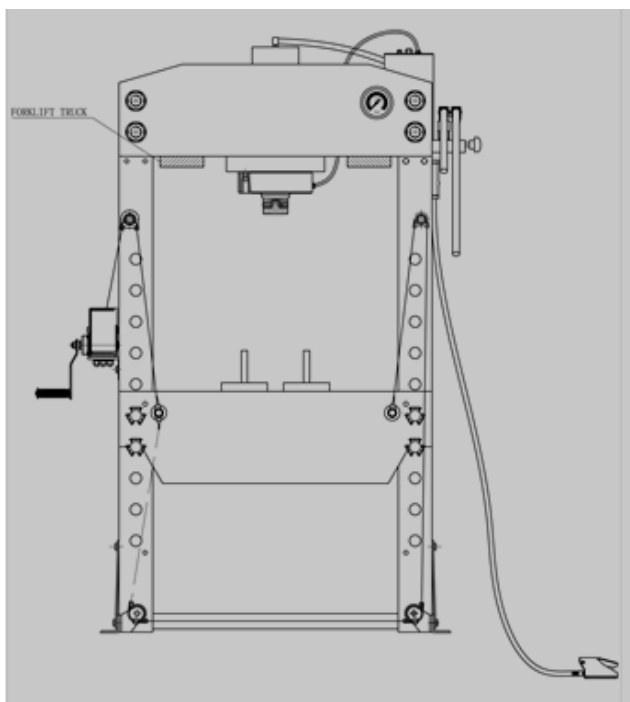
## 3. PREPARE BEFORE USING

### Transport

#### **WARNING**

The units are generally too heavy to be moved by hand. Therefore, use the correct transport and lifting equipment. The weights and dimensions of this machine (unit) are shown on the label in clause 2. During moving the machine, please make sure to use the proper lifting equipment and follow the instructions as follows.

### FORKLIFT TRACK



### Hydraulic part

#### 3.2 Working Area Conditions

Users should provide enough space for the equipment and the environment should be clean, non-flammable, corrosive and dust free.

#### **CAUTION**

A working area of 1,000mm is to be kept free both in front of and behind the machine while it is in operation so that it is always easily accessible.

## Unpacking & Check

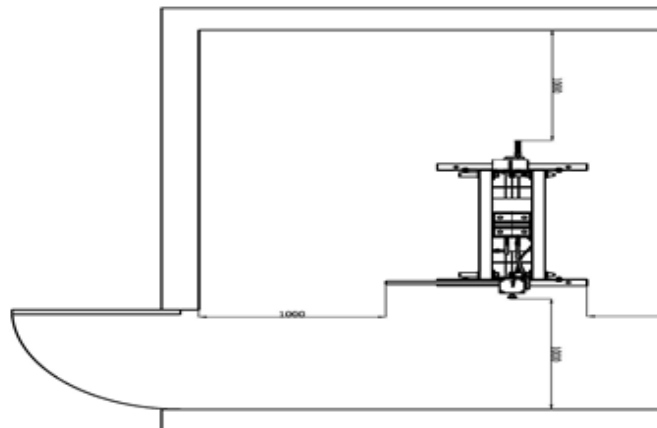
### CAUTION

When opening the packaging, please make sure to use the proper tools, wear protective clothes, gloves, safety helmet

Make sure that the product and parts are included in the box and are identical with the part list. If not, please contact the manufacturer in time.

Disposal of the packaging.

The packaging of these machines consists of PVC film and polywood case. The proper disposal of the packaging is the responsibility of the customer.



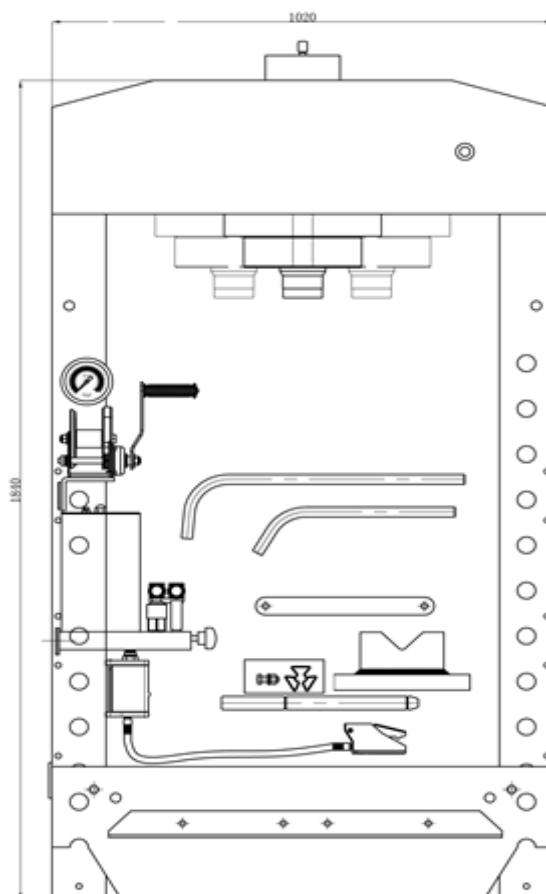
## Installation

### CAUTION

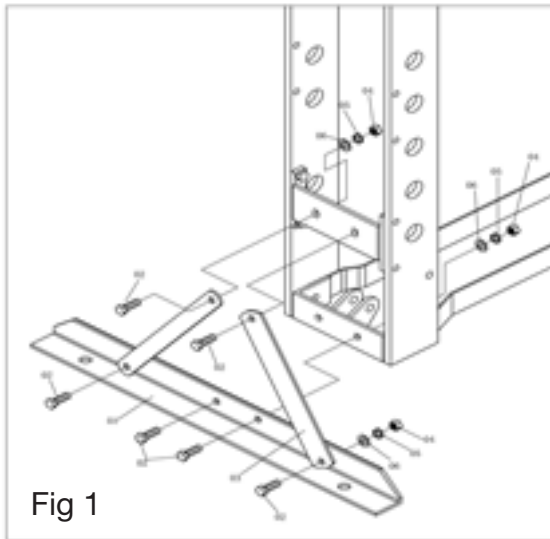
The machine must only be installed and commissioned by qualified personnel! All relevant safety regulations must be strictly adhered to!

## Packing Condition

The bed frame(31) is put in the bottom in order to convenient for package and transport, then fixed on the post by two bolts M12







Attach the base section (01) and support (03) to left and right connecting plate using bolt (02), washer (06), lock washer (05) and nut (04)

Assemble the nylon ring (72) to gauge fitting (51), then put the pressure gauge (50) and twist tight. Remark: twist as tight as possible, otherwise it will be leak.

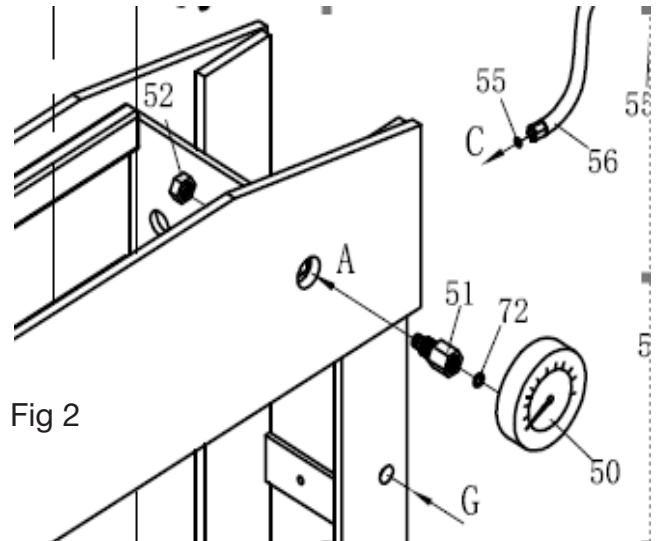


Fig 3

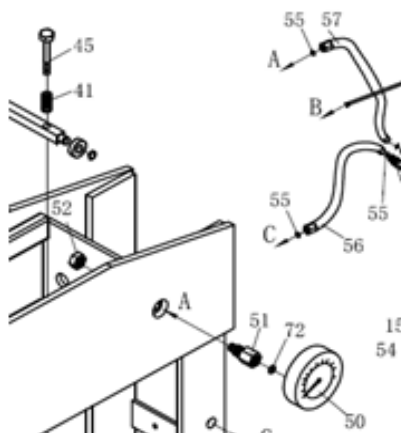
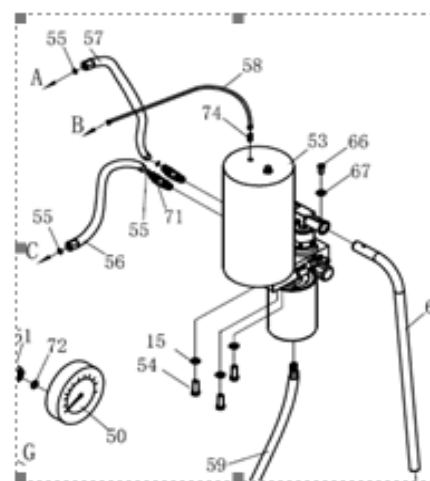
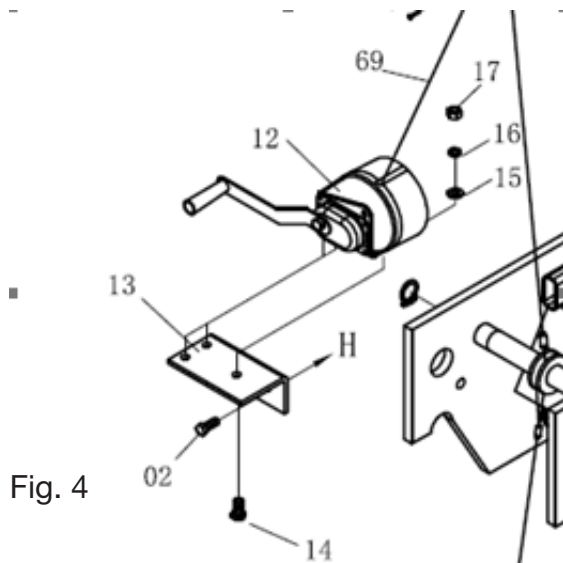


Fig 4



Oil hose 1 assemble: Dismantle the plug from oil hose 1 (56) then assemble the o-ring(55), also dismantle the plug from ram assy'(46), connect the oil hose 1 (56) to ram assy'(46) and twist tight.

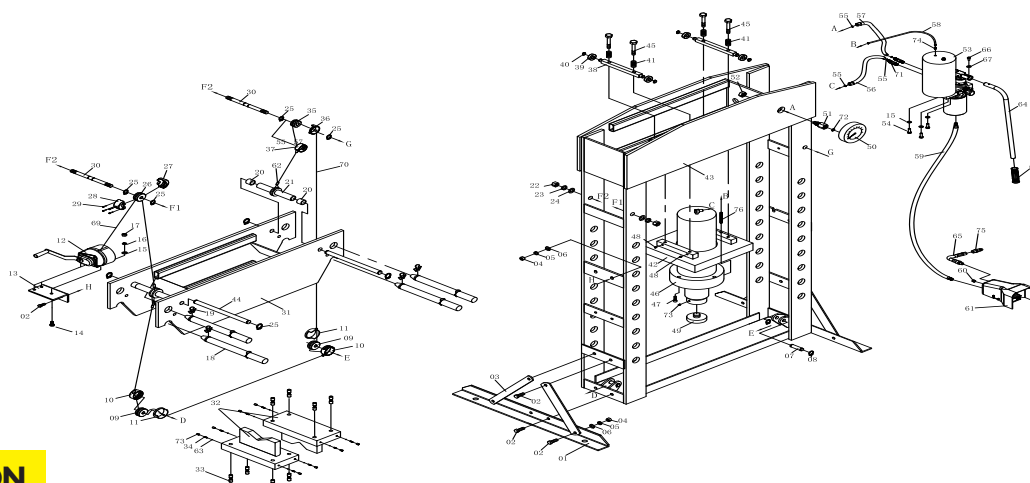
Oil hose 2 assemble: Attach the o-ring (55) to gauge fitting (51), then put the oil hose 2 (57) into the gauge fitting (51) and twist tight, connect the PU hose (58). Attach the handle (64) to the pump pin by using bolt (66) and flat washer (67) and twist tight.



Move the hand winch (12) to the outside of the post, then use bolt (02), washer (06), lock washer (05), and nut (04) which were dismantled just now to twist tight and fix to the relevant roller.

Fig. 4

## Commissioning the machine



### CAUTION

#### Before the commissioning

Before the first use, please fix the machine to the floor by anchor pole. It must be ensured that the standing surface of the machine site is firm and horizontal, and that sufficient lighting is provided for.

- Purge away air from the hydraulic system.
- Manual operation system: open the release valve (50) by turning it counterclockwise. Pump several full strokes to eliminate any air in the system.
- Air operating system: open the release valve (50) by turning it counterclockwise. Connect the quick coupler-male into the air supply hose quick coupler-female, then turn on the air valve(52) letting the pump work for several times to eliminate any air in the system.
- Check all parts and conditions, if there is any part broken, stop using it and contact your supplier immediately.

#### 4. OPERATION

Ensure bed frame is at proper position and lock the bed frame by pins (12) firmly.

Place the heel block (24) on bed frame (23), then insert work piece onto the heel block.

Note: The steel block must be used by pair, not by piece!  
The steel block can be used by both sides.

Close the release valve (50) by turning it clockwise until it is firmly closed.

Connect the quick air valve (52) into the junction of air source, turn on the air valve(52) to let the pump work until serrated saddle(40) nears work piece, then turn off the air valve. When air source is unavailable, pump the handle(49)until serrated saddle (40) nears work piece.

Align work piece and ram to ensure centre loading.

Turn on air valve (or pump handle) to apply load onto work piece (please see numeration in pressure gauge). When work is done, turn off the air valve (or stop pumping handle), slowly and carefully remove load from work piece by turning the release valve(50) counterclockwise in small increments.(must turn with the small angle, the biggest is two circles)

Once ram has fully retracted, remove work piece from bed frame.

Disconnect the air inlet fitting from the air source.



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## 5. TROUBLE SHOOTING

No.	Fault	Cause	Remedy
1	The pump is working, while the ram can't work.	The oil pipe loosed the ram is leaking.	Check the connecting situation of oil pipes replace the oil seals.
2	When open release valve, the ram can't reset.	The oil pipe is loose. Not enough space in pump. The ram become invalid.	Check the connecting situation of oil pipes. Open the exhaust valve. Replace the ram.
3	Manual normal, while ram can't work.	Release valve not complete closed. Air in system.	Check the release valve. Purge away the air according to manual.
4	Sound from air motor but ram can't work.	Release valve not complete closed. Air in system.	Check the release valve. Purge away the air according to manual.
5	The ram can't fully work.	Not enough oil.	Add oil.
6	The air motor can't work.	Air press is not enough and overload the capacity. Air motor is broken.	Check the air press and capacity. Replace the air motor.
7	Oil leaking.	Seal kits broken. Screw parts loosed.	Replace the seal kits. Tighten the screw parts.

## 6. MAINTENANCE

Maintenance should be carried out daily before use.

Clean the outside of the press with dry, clean and soft cloth and periodically lubricate the hoist, wheel shaft assembly, the joints and all moving parts with a light oil in normal service.

DO NOT apply lubricant to heel block or frame of shop press.

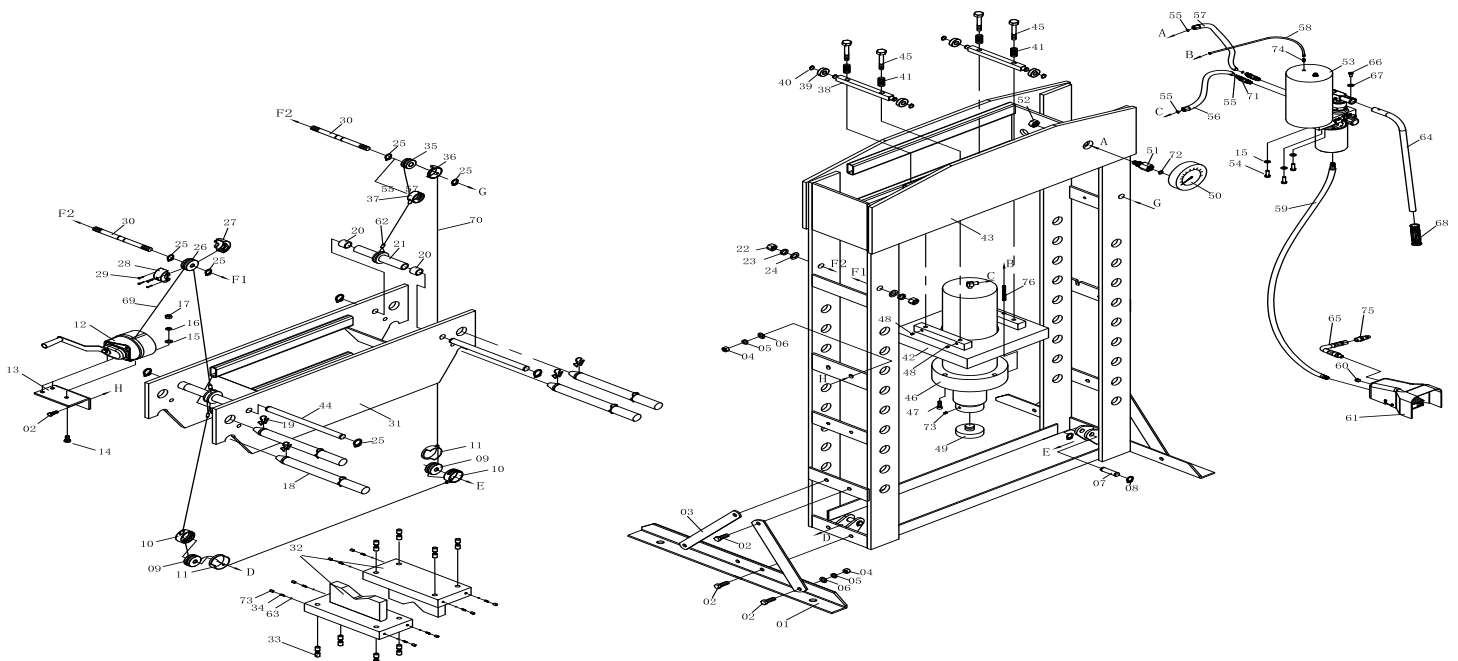
When not in use, store the press in a dry location with ram and piston fully retracted.

When press efficiency drops, purge away air from the hydraulic system as described before.

Check the hydraulic oil: remove the oil filler nut (49) on the top of the reservoir, if the oil is not adequate, fill with 22 ISO6743 hydraulic jack oil as necessary, then replace the oil filler nut, purge away air from the hydraulic system as described before.

The equipment must not be repaired or changed spare parts by whom without approval from the certified technical support engineer.

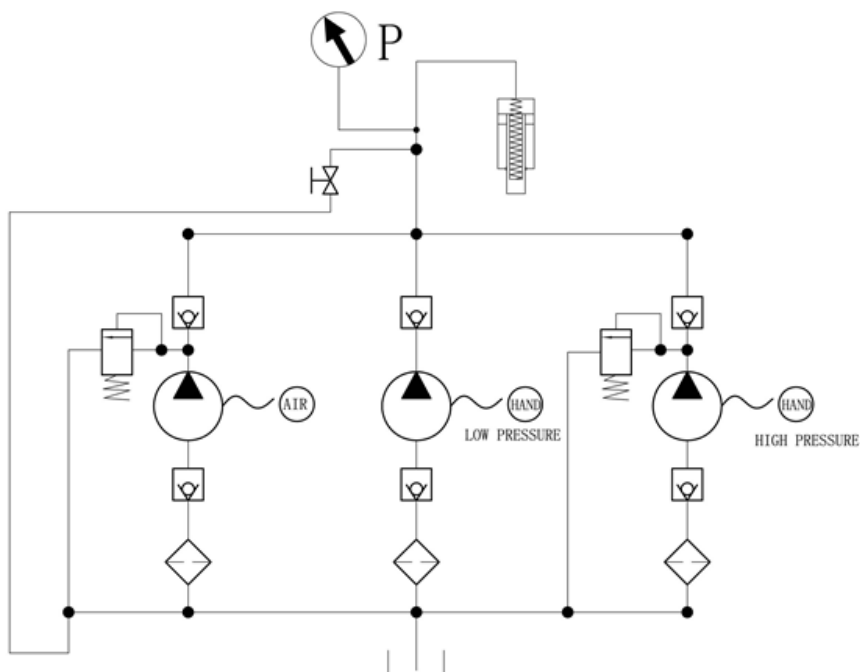
### Annex A: Overall drawing of machine



## WHOLE MACHINE PART LIST

NO.	DESCRIPTION	Q'TY	NO.	DESCRIPTION	Q'TY	NO.	DESCRIPTION	Q'TY
01	Base	2	27	Cover	1	53	Pump Assembly	1
02	Bolt	14	28	Cover	1	54	Bolt	5
03	Support Bar	4	29	Screw	4	55	O Ring	4
04	Nut	14	30	Roller Pin	2	56	Oil Hose	1
05	Lock Washer	14	31	Working Bed	1	57	Oil Hose	1
06	Flat Washer	14	32	Steel Block	2	58	PU Hose	1
07	Roller Pin 2	2	33	Screw	8	59	Air Hose	1
08	Circlip	4	34	Spring	8	60	Plug	1
09	Big Roller	2	35	Small Roller	1	61	Air Valve	1
10	Cover 1	2	36	Cover 3	1	62	Cable Seelve	3
11	Cover 2	2	37	Cover 4	1	63	Steel Ball	8
12	Hand Winch	1	38	Tube	2	64	Handle	1
13	Plate	1	39	Roller	4	65	Air Hose	1
14	Bolt	3	40	Circlip	4	66	Bolt	1
15	Flat Washer	6	41	Spring	4	67	Flat Washer	1
16	Lock Washer	3	42	Mounting Plate	1	68	Handle Seelve	1
17	Nut	3	43	Frame	1	69	Cable	1
18	Pin	4	44	Lifting Bar	2	70	Cable	1
19	Circlip	8	45	Bolt	4	71	Fitting	2
20	Tube	4	46	Ram Assembly	1	72	Nylon Ring	1
21	Bushing	2	47	Screw	4	73	Screw	9
22	Nut	4	48	Screw	4	74	Hose Fitting	1
23	Lock Washer	4	49	Saddle	1	75	Fitting	1
24	Flat Washer	4	50	Pressure Gauge	1	76	Spring	1
25	Circlip	8	51	Gauge Fitting	1			
26	Roller 3	1	52	Nut	1			

Annex C  
Hydraulic circuit diagram



## Declaration of Conformity.

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We, Tundra Industrial, as the authorised European Community representative of the manufacturer, declare that the following equipment conforms to the requirements of the following:

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**Machine Tools Safety:**

EN ISO 16092-1:2018  
EN ISO 16092-3:2018

**Product Name:**

Tundra 75T Shop Press  
TUNSHPR75

**Notified Body:**

TUV Rheinland LGA Products GMBH,  
Tillystrabe 2, 90431, Nurnberg Germany

**Signed by:**

Stephen McIntyre



29 June 2023

Operations Manager

**Name and address of manufacturer or  
Authorised representative**

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## TUNDRA SHOP PRESS

