

# Customer Information Workbook

**CONGRATULATIONS** on your purchase of a TOSHULIN VTL.

It is my pleasure to present you with this pre-Installation workbook.

This workbook contains items that Pilsen Imports, Inc. and TOSHULIN

find to be useful and important for the installation of

**your new Vertical Turning Center.**

**Tabs are at the bottom of this workbook for the following items:**

- 1)      **Intro**                      This page introduces the workbook contents
- 2)      **Requirements**            This is a list of the recommended items that you should supply to assist in the installation of your machine
- 3)      **Mach Weights**            This lists the various weights of the shipping containers for use by your rigging crew to remove the machine from shipping trucks.
- 4)      **Oil Chart**                    This is a cross reference chart of the Oils and Greases that will be required for the installation of your machine.
- 5)      **Installation Cycle**        This is a chart giving time estimates and showing how the machine installation should progress. Very helpful for setting up timeline information.

To print the entire Workbook, click on File on the main Menu bar, then click on Print, then in the Print What box click next to Entire Workbook, then click OK to start printing.

If you have any questions about this workbook please call me at 513-271-3380.  
Once again Congratulations on your new addition to your production force.

Sincerely,

Blake Brown - Customer Support Specialist  
PILSEN IMPORTS, INC.

# POWERTURN 4000

## Estimated machine component Weights for Shipment

	<b>Dimensions mm</b>	<b>Weight NTTO/BTTO, kg</b>
1 Column right	4500 x 2100	11100/11800
2 Column left	4500 x 2100	11100/11800
3 Cross rail	9500 x 1400	14500/15500
4 Bed	6400 x 4100 x 1250	21500/23000
5 Crossbeam	5000 x 2000	5600/6300
6 Hydraulics + el. cabinet	3000 x 1500	1600/1800
7 Guards	6600 x 2200	4000 x 4700
8 Guards	6600 x 2200	3000 x 3700
9 Guards	6600 x 2200	2500 x 3200
10 Guards	5000 x 2200	2200 x 2900
11 Ram	4000 x 1400	2400 x 2800
12 Tool magazine	3200 x 2000	1800 x 2100
13 Cooling Tank	3000 x 1000	500 x 600
14 Belt conveyor	10000 x 1000 freely	1000 x 1000
15 Table (chucks)	4600 x 4200 x 800	12000 x 13500
16 Covers (gate, sides)	4300 x 2900 x 2400	2000 x 3500

### **Lodgment:**

#### **3 cases:**

- 1 Bed
- 2 Table
- 3 Covers – gate, sides

#### **6 containers 1AA:**

- 1 Column right + Guards
- 2 Column left + Guards
- 3 Cross rail
- 4 Crossbeam + Guards
- 5 Belt conveyor + Hydraulics + el. cabinet + Ram + Cooling Tank
- 6 Guards + Tool magazine

## **Requirements for Customer to PROVIDE during Installation**

- 1) Rigging crew or cranes, straps, chains, shackles, (come along) sufficient to move machine. An inside storage capability for all the machine components.
- 2) The foundation poured and cured before machine arrival.
- 3) Grout for the anchor bolts. ( should be a non-shrinking type grout)
- 4) Approximately 1 gallon of two part epoxy for concrete (Unisob or Hilti)  
10 small lag downs
- 5) Air and electricity to hook up to the machine at the start of the installation.
- 6) Require a working assistant(s):
  - a. To be available for the entire machine installation (approximately 4-5 weeks)
  - b. To have access to tools and be able to run a fork truck and crane systems
  - c. To be able to provide any materials and service of riggers, electrical power and hook-ups
- 7) Disposal and shipping packing and skids
- 8) Forklift with operators available. (minimum of 15,000 pound fork truck lift capacity)
- 9) A minimum 20' x 20' cleared space near the machine installation area for organizing the assembly of components
- 10) Cleaning solvents, clean-up towels or rags
- 11) Oils and grease for the machine, please refer to the recommended Oil and grease chart
- 12) A facility area for changing clothes, preferably a locker room with lockers available.  
Rest room facilities
- 13) Some form of work piece to do turning, facing and boring operations, preferably mild steel
- 14) Supply a secure platform in front of the machine for operators.

## Recommended Oil and Grease Cross Reference Chart

Overseas Manufacturer Names	Overseas Oil and Grease Brand Types				
	Table & Aux. Sp Bearing Oil	Gear Bearing Oil	Hydraulic Oil	Grease	Lubricating Way Oil
Benzina	OL - J22	Mogul Glison 100	OH - HM 46	LV 2-3	Mogul Glison 46
BP	Energol CS 22 Energol HP 22	Maccurat 110	Energol HLP 46	Energrease LS 3	Maccurat 68
Mobil	Velocite Oil 10	Vactra Oil 3	DTE 25	Mobilux 3	Vactra Oil 2
Shell	Vitera Oil 22 Tellus Oil C22	Tonna Oil T220	Tellus Oil 46	Alvania Grease R3	Tonna Oil T68
Esso	Spinesso 22 Nuto H 22	Febisk 220	Nuto H 46	Beacon 2	-----
Total	Drosera MS 15	Drosera MS 100	Azola ZS 46	Multis EP 2-3	Drosera MS 46
OMV	OMV-OLE MRO 22	OMV-OLE HST 100	OMV-OLE HLP 46	OMV Signum L2-3	OMV-OLE HST 68
<b>Approx. Amounts</b>	<b>37.2 Gallons</b>	<b>5.4 Gallons</b>	<b>39.6 Gallons</b>	<b>1 tube</b>	<b>5 Gallons</b>

N.A. Manufacturer Names	North American Oil and Grease Brand Types				
	Table & Aux. Sp Bearing Oil	Gear Bearing Oil	Hydraulic Oil	Grease	Lubricating Way Oil
Benzina	OL-J22	Mogul Glison 100	OH-HM 46	LV 2-3	Mogul Glison 46
Exxon	Spinestic 22	Febisk 220	Nuto H 68	Unirex N 2	Febisk 68
Mobil	Velocite Oil 10	Vactra Oil 3	DTE 24	Mobilux 3	Vactra 2
Shell	Tellus C22	Tonna Oil T 220	Tellus Oil 46	-----	Tonna Oil T68
Texaco	Spinduro 22	Maropa 100 Regal 100	Rando 46	Multifak 2	Waylube 68
Castrol	-----	Tribol MWO 20LS	-----	-----	-----
BP OIL	-----	Maccurat 110	-----	-----	-----
<b>Approx. Amounts</b>	<b>37.2 Gallons</b>	<b>5.4 Gallons</b>	<b>39.6 Gallons</b>	<b>1 tube</b>	<b>5 Gallons</b>

Durable oil types	Oil types - technical requirements				
	Brand example	Bearing Oils		Hydraulic Oil	Lubricating Oil
	Benzina	OL-J22	Mogul Glison 100	OH-HM 46	Mogul Glison 46
Kinematic viscosity at 40 °C mm <sup>2</sup> /S most	19.8 - 24.2	90 - 100	41.4 - 50.6	41.4 - 50.6	
Flash Point °C -least	175	195	190	195	
Point of congelation °C	-10	-25	-30	-25	

Grouting Manufacturer	Brand	Type
Unisorb	Standard V-100 Epoxy grout	non-shrinking

## Installation Timeline

### Double Column Machines

***Grouting will not take place until the rough leveling of the machine is completed.***

Event	Approx. Time	Equipment Required
Unloading from trucks	1 Day	Riggers, cranes, fork lifts
Unpacking shipping crates	1 Day	Cranes, fork lifts, dumpster
Cleaning machine components	1 Day	Towels or rags, Solvents, fork lift
Start setting of the Base on wedges	2 Days	Riggers, cranes
Set the column in place and assemble cross rail	4 Days	Fork lift, Blocks of wood, cranes and riggers, Grout, RTV sealant
Setting the upper works and rail	4 Days	Riggers, cranes
Perform rough level and adjustments	2 Day	.0005" precision block level (8-10" sq)
Set electrical panels in place Set the hydraulic unit in place Set up tool changer unit	3 Days	Fork lift, riggers
Set supports for guards Install wireways and pull cables Run conduit and hoses	4 days	Hammer, drill & anchors Fork lift 2 part Epoxy, Oils
Apply electrical power and air	1 Day	Customer to complete
Install covers, do sheetmetal work and external chip guards	4 Days	Fork lift and Hammer drill
Machine start-up and final level and alignments	4 Days	.0005" precision block level (8-10' sq) .0005" indicators and mag stand
Install chip conveyor and inner chip guards Load tools in magazine & test Cycles	2 Days	Fork lift
Informal operator training at machine	1-2 days	Documentation, Special hand-outs

The above schedule of events and the timing are only our best estimates and are subject to change as the conditions at the work site may warrant.

NOTE: The above is based on a 5 day work week and 8 hours per day.