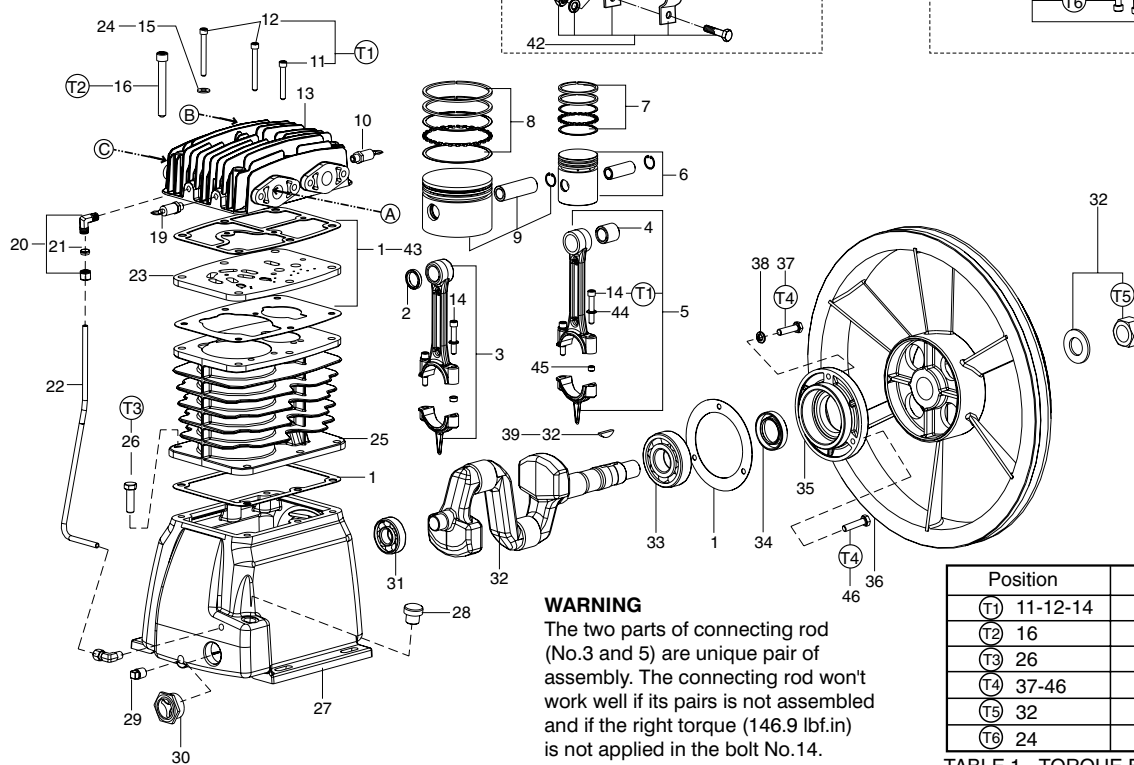
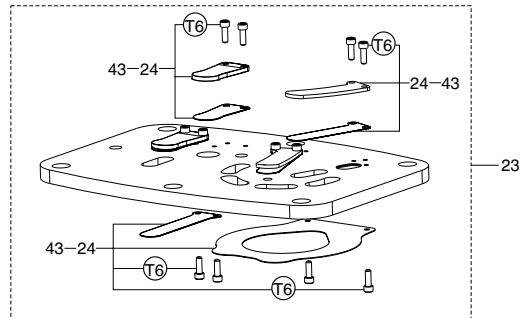
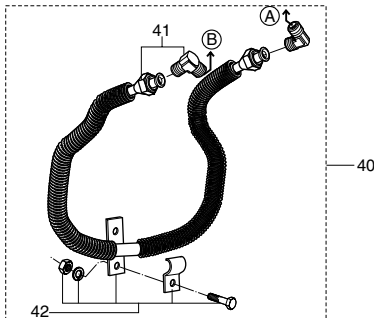
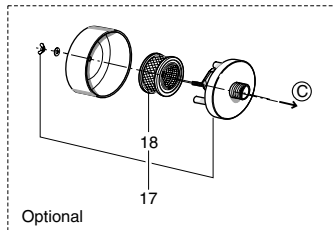


#### TECHNICAL DATA

MODEL	DISPLACEMENT cfm	MAX. PRESSURE psig	RPM	MOTOR hp (running)	BELT	MOTOR PULLEY		OIL CAP.		WEIGHT IN LBS	DISCHARGE SIZE
						2 POLES		IN $\lambda$	IN QT		
						mm	inch	1.0	1.05		
<b>MSL 20 MAX</b>	20	175	985	5	1-A	120	4.7	1.0	1.05	96	1/2" NPT



#### WARNING

The two parts of connecting rod (No.3 and 5) are unique pair of assembly. The connecting rod won't work well if its pairs is not assembled and if the right torque (146.9 lbf.in) is not applied in the bolt No.14.

Position	lbf.in	N.m
(T1) 11-12-14	146.9	16.7
(T2) 16	483.1	54.9
(T3) 26	300.9	34.2
(T4) 37-46	221.3	25.0
(T5) 32	1128.0	127.0
(T6) 24	19.3	2.2

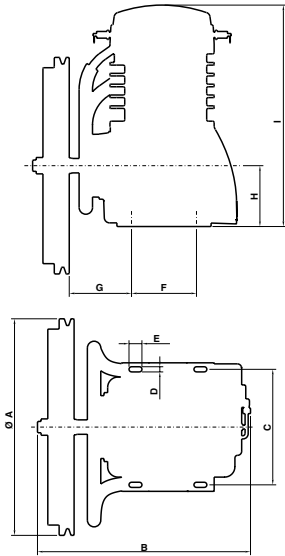
TABLE 1 - TORQUE ESPECIFICATIONS FOR BOLTS

#### BARE PUMP PARTS

No.	CODE	DENOMINATION	QUANTITY	No.	CODE	DENOMINATION	QUANTITY
1	830.1088-0/NA	Gasket kit	01	25	709.1569-0	Cylinder	01
2	013.0820-0	Spacer bushing	02	26	*	3/8" x 1" hex. head bolt	06
3	809.1074-0	LP connecting rod kit	01	27	709.1567-0	Crankcase	01
4	019.0064-0	Needle bearing	01	28	028.0297-0	M18 plug	01
5	830.1086-0	HP connecting rod with needle bearing kit	01	29	003.0028-4	1/4" plug	01
6	830.0786-0	HP $\varnothing$ 2" piston	01	30	003.0044-6	1" oil level sight	01
7	830.0823-0	HP 2" ring kit	01	31	019.0002-1	6204 bearing	01
8	830.0780-0	LP 90mm ring kit	01	32	830.1087-0	Crankshaft kit	01
9	016.0042-0	LP $\varnothing$ 90mm piston	01	33	019.0007-2	6306 bearing	01
10	022.0189-0	HP 1/8" ASME safety valve	01	34	023.0338-0	Oil seal	01
11	*	1/4" x 1.3/4" Allen hex. head bolt	01	35	709.1334-0	Flange	01
12	*	1/4" x 2.1/4" Allen hex. head bolt	01	36	709.1062-0	Flywheel	01
13	709.1449-0	Aluminum cylinder cover	01	37	*	5/16" x 1 hex. head bolt	02
14	*	1/4" x 1.1/2" Allen hex. head bolt	04	38	*	5/16" lock washer	03
15	830.1032-0	Washer copper kit	01	39	709.0163-3	Key	01
16	*	3/8" x 3" Allen hex. head bolt	06	40	709.1418-0	Intercooler kit	01
17	007.0116-0	3/4" NPT Air filter	01	41	003.0294-0	NPT 1/2" x 5/8" elbow	02
18	007.0118-0	Filter element	01	42	830.1063-0	Intercooler holder kit	01
19	022.0177-0	LP 1/8" ASME safety valve	01	43	830.1055-0	Gasket/valve plate kit (kit)	01
20	003.0005-5	NPT 1/8" x 1/4" elbow	02	44	*	1/4" Lock washer	04
21	830.0599-8	1/4" ring kit	01	45	809.1074-C	Guide bushing connecting rod	04
22	709.1419-0	Crankcase breather tube	01	46	*	5/16" x 1. 1/4" Hex. head bolt **	01
23	809.1059-0	Valve plate	01	-	*	1/4" x 3/8" Allen hex. without head-assembled of the pulley (not shown)	02
24	830.1053-0	Valve plate kit	01	-	709.1420-0	Pulley (not shown)	01
				-	003.0208-2	NPT 1/8" elbow - assembled item 10-19 (special bare pump not shown)	02

Note: HP = high pressure LP = low pressure

\* Part available in the market - not sold by Schulz. \*\* Assembled of the intercooler holder (item 42).



	mm	inch
A	420	16.53
B	413	16.26
C	224	8.8
D	10.5	0.41
E	35	1.4
F	126	4.9
G	119	4.68
H	118	4.64
I	430	16.92

**INSTALLATION AND OPERATION INSTRUCTIONS**

**INSTALLATION AND LOCATION**

**1. Installation:** Install the compressor in a covered, well ventilated area, free of dust, toxic gases, humidity or any other kind of pollution. The compressor should be located no closer than 32" (800mm) from a wall or any other obstacle that could interfere with the air flow through the fan. This distance will also make maintenance easier. Place the compressor on a leveled surface. Rotation of the flywheel must be in the direction of the arrow cast into the flywheel. The maximum ambient temperature recommended while working is 104°F or 40°C. If necessary, install an exhaust fan to guarantee fresh air and to dissipate heat.

Before making the electrical connections, check oil level and top-up lubricating oil. For type of oil, see table at the end of these instructions.

**2. Electrical connection:** The country's valid electrical standards must be followed regarding Low Voltage Electrical Installation.

**OPERATION**

**1. Initial start procedure:** Before turning on the compressor, check the crankcase oil level. It must be in the middle of the OIL LEVEL SIGHT. As to the type of oil to be used and the recommended change intervals, check at "Lubrication" and as to its volume, check the Technical Data Table.

**2. Start:** Turn on the electrical start key and let your compressor run for about 10 (ten) minutes, what will keep the tank's internal pressure or compressed air around 20 psig. This will optimize a homogeneous lubrication of the parts.

**LIMITED WARRANTY**

All component parts on your SCHULZ compressor are warranted to be free of defects in workmanship and material for a period of one year. Transportation charges are responsibility of the purchaser. This warranty extends to the original purchaser of the compressor only.

There are no express warranties except as contained in this limited warranty statement and implied warranties, including those of merchantability and fitness for a particular purpose, are limited to the period of warranty.

Our liability is limited solely to replacement of nonconforming parts as set forth herein and does not include any liability for any incidental, consequential, or other damages of any kind. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.



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**MAINTENANCE**

**WARNING**

Turn off power before servicing and be sure the air tank is unloaded. These instructions are based on normal operating conditions. If the compressor is located in an exceedingly dusty area, increase the frequency of all inspections.

**DAILY**

- Inspect the compressor visually.
- Check oil level and add some if necessary, before turning the compressor on.
- Drain moisture from the piping system.
- Be sure there is no excessive or unusual vibration or noise.

**WEEKLY**

- Remove and clean intake air filters; do not wash the filter element.
- Check V-belt for tightness. Belt tension should be adjusted to allow approximately 3/8" to 1/2" (9 to 13 mm) deflection with normal thumb pressure.
- Clean cylinders externally, cylinder head, motor, fan blade, tubing, and tank.
- ASME safety valve should be tested manually to see if it is working properly.

**MONTHLY**

- Check entire system for air leakage around fittings, etc by using water and soap lather.
- Check the pressure switch operation.
- Check for oil contamination and change it if necessary.

**QUARTERLY**

- Change the air filter element every 300 working hours or quarterly. (Whichever occurs first).
- Fasten bolts and nuts as required. (See Table 1)
- Change oil more frequently if compressor is located in a very dirty environment.
- **WHILE RUNNING IN A PERIOD OF ABOUT 100 WORKING HOURS THE OIL LEVEL SHOULD BE CAREFULLY CHECKED.**

**ANNUALLY**

- Test and calibrate the pressure switch, pressure gauge and ASME safety valve according to their own technical standards. These parts must be removed from the tank and pump to be tested.
- Inspect and clean the suction and discharge valve(s) plate(s) every 1,000 (one thousand) working hours (whichever occurs first), located between the cylinder and its cover and, if necessary, replace it (them) according to the operation conditions.

**LUBRICATION**

- The first oil change should be made after 8 hours of operation.
- The second oil change after 40 hours of operation.
- The third and following exchanges should be made after 200 hours of operation, or 60 (sixty) days, whichever occurs first.

**NOTE:**

Heavy Duty and multi-viscous oils are not adequate for Schulz air compressor's lubrication. The same applies to oils that tend to emulsify.

We recommend good industrial oil for air compressors, with rust and oxidation inhibitors and high viscosity level (from 90 to 95), SAE or ISO, as indicated in the table below:

**RECOMMENDED LUBRICANT OILS FOR SCHULZ AIR PUMPS**

AMBIENT TEMPERATURE °F (°C)		
Below 32 °F Below 0 °C	32 °F to 68 °F 0 °C to 20 °C	68 °F to 104 °F 20 °C to 40 °C
SAE 10W or ISO 32	SAE 20W or ISO 68	SAE 30 or ISO 100

Note: Schulz reserves the right to make changes without prior notice.

**DISTRIBUTOR**

