

**PTO DRIVE BETICO
COMPRESSOR MANUAL**

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4. BETICO COMPRESSOR MANUAL

PTO FITUP SPECIFICATION SHEET, ISSUE: 1 , DATE: 24/11/03

CUSTOMER	DeBRUYN TRANSPORT
JOB NO.	5887
PRIME MOVER	MACK VISION
CHASSIS NO.	6FMJ08E563D709701
GEARBOX MAKE & MODEL	MACK T318LR18
PTO MAKE & MODEL	CHELSEA 880XRDX-A5XV S/No. 440294
ENGINE RPM	875 Select 4th gear low for PTO operation
COMPRESSOR RPM	1600
COMPRESSOR	BETICO SB1-82 Serial No. 160549
COMPANION FLANGE	TO SUIT LAYSHAFT
PULLEYS	BETICO integrated flywheel/pulley 200mm PCD, 5 groove bottom pulley
BELTS	SPB 5 off length 2530mm
DRIVESHAFT	1410 Series – without vibrodamp 425mm

OTHER

1. Aluminium flywheel guard fitted.
2. 3” hot air hose, approx 3m with 3” brass hosetail on compressor outlet and NA80-9 camlock on tanker end.
3. Dummy camlock on chassis.
4. Aluminium chassis plate.
- 5.

1. OPERATING INSTRUCTIONS.

1. DO NOT START COMPRESSOR UNDER LOAD.
2. DO NOT STOP COMPRESSOR UNDER LOAD.
3. DO NOT OPERATE COMPRESSOR BELOW CORRECT SPEED SETTING.
4. DO NOT OPERATE COMPRESSOR ABOVE CORRECT SPEED SETTING.
5. DO NOT OPERATE COMPRESSOR OVER 200 kpa.

PRESTARTING CHECK.

1. Compressor turns freely.
2. Air Filters and fittings are tight.
3. Air Filters are serviced.
4. All bolts are tight.
5. Proper oil level in crank case.
6. Check valve on tank okay.
7. Relief valve on tank okay.

STARTING PROCEDURE.

1. Ensure boost valve and 2-3 aeration lines are open – compressor must NOT start under load.
2. Idle the truck engine at low idle.
3. Slowly engage the power take-off.
4. Warm up the compressor at idle and zero pressure.
5. Set truck engine to operating revs – consult specification sheet for correct speed setting.
6. Check for severe vibration, unusual noise, leaks and undue temperature increase.
7. With the compressor at operating revs, close boost valve on tanker to pressurise the vessel.
8. Ensure rpm and pressure is correct during operation.

SHUTDOWN PROCEDURE.

1. Ensure the boost valve and 2-3 aeration lines are open on the tank.
2. Bleed tank pressure to zero.
3. Idle the truck engine.
4. Allow the unit to cool down at idle for several minutes (compressor at zero pressure).
5. Disengage the PTO.

EMERGENCY SHUTDOWN PROCEDURE.

1. Fully open boost valve on tanker.
2. Idle the truck engine.
3. Allow the unit to cool down at idle for several minutes (compressor under NO load).
4. Slowly disengage PTO.

SERVICE INFORMATION.

GENERAL.

OIL SPECIFICATION.

Early model Betico compressors are not fitted with an oil filter. The recommended lubricating oil is a non detergent type which drops solid contaminants out of suspension into the sump area maintaining clean oil flow to the bearing surfaces. It is therefore critical to the life of the compressor that detergent type oils are not used as they will hold the wear particles in suspension.

It is also important to use the viscosity recommended as heavier oils will cause the compressor to run hotter which in turn will cause the heavier oil to reduce in viscosity which tends to negate the reason for using this oil in the first place.

OIL BATH AIR CLEANERS.

It is also recommended to use oil of the same specification as the sump in the oil bath type aircleaners. This is also critical to the life of the compressor as heavier oils will not wet the filtering gauze to the same degree as the light oil.

In summary, do not be tempted to use engine oil in Betico compressors as considerably shorter life may result.

Later model compressors are fitted with an oil filter which will effectively filter out suspended solids but the recommended oil should still be used.

OIL CHANGE INTERVALS.

Oil changing interval is not as critical with Betico compressors as with internal combustion engines due to lower operating temperatures and absence of byproducts of combustion. As a general rule, if the oil looks clean it is OK. If not it should be changed. The recommendation of changing the oil every 500 hours is conservative in all but the most adverse environments. If an oil filter is fitted it should be changed each time the oil is changed.

CYLINDER HEAD BOLTS.

The torque setting of the cylinder head bolts is particularly critical as overtightening restricts the cylinder's ability to expand during warm-up. This can cause the piston to "pick up" on the cylinder due to its faster rate of expansion.