PIX

BELTS & HOSES

USER'S GUIDE AUTO BELTS

GLOBAL ACCEPTANCE - THE QUALITY WAY

Corporate Office & Works (J-7, Hingna, MIDC)

K-36 MIDC Plant, Nagpur

Bazargaon Plant

Contents

Introduction

PIX Transmissions Limited, is the world's fastest growing V-Belt and Hose manufacturing company. Its state-of-the-art manufacturing facilities in Nagpur & Bazargaon, India, produces extensive range of products, covering all Automotive, Industrial, Agricultural and Lawn & Garden applications.

PIX Transmissions Limited is the largest exporter of V-Belts in India and is known as an Indian Multinational with subsidiary operations in UK, Germany and Brasil.

It is a professionally managed company with hi-tech ultramodern facilities for the manufacturing of V-Belts and Hoses & has its own Research & Development wing.

The exports are managed by the company's Exports Office in Mumbai, India.

Certifications
The Company's focus on quality is understood from the fact that it is an ISO 9001:2000 and TS 16949 certified company. Currently the company's products are exported to over 60 countries overseas through a strong network of global distributors.

Achievements
- The company is the successive recipient of Export Awards for the last several years.
- It is the first company to be recognised as the largest Manufacturer-Exporter of V-Belts in India.
- It is the only V-Belt & Hose manufacturing company in India to achieve Export House Status.

Product Range
At present the company produces an extensive range of

Introduction

products in terms of V-Belts and Hoses - types and sizes. The company manufactures entire range of Automotive / Industrial Cogged, Wrapped as well as Ribbed V-Belts.

The extensive range of automotive transmission belts manufactured by the company covers the entire field of applications, from mopeds to heavy vehicles and earth moving machineries.

The company produces the entire range of - Automotive, Industrial and Agri Belts, which comprises of -

- Entire range of Wrapped Construction V-Belts
- Entire range of Cut Edge V-Belts
- Entire range of Ribbed V-Belts
- Special Construction Belts : Lawn and Garden Belts, Variable Speed Belts, Anti-static V-Belts, Fire Resistant Anti-Static V-Belts
- Medium and High Pressure Hoses and Hose Assemblies.

Logical developments and the adoption of new techniques in material and production methods has enabled its products to perform better even under adverse conditions.

Salient Features of : PIX Automotive Belts

- The high tensile polyester cord enables the maximum power transmission.
- Possesses moulded cogs for extra flexibility.
- They are resistant to oil and heat.
- Are capable of working on high speed engines.
- Are good abrasion resistant.
- Are low stretch and maintenance free.
- Offers high power transmission even on small pulley diameters.

PIX Automotive V-Belts are available in Wrap, Cut Edge and Ribbed constructions and confirms to the standards as

Introduction

Wrap Construction V-Belts : DIN 7753, BS AU 150B

Raw Edge Cogged Belts : DIN 7753, BS AU 150 B, ISO 2790, IS 5635, SAE J 636.

Ribbed V-Belts : RMA IP-26, ISO 9981

Customer Service
PIX has a team of highly motivated and qualified professionals to support your needs in all the commonly spoken languages.

The global presence of PIX spanning different time zones also ensures round the clock support.

Certifications


KEMA

CERTIFICATE

Pix Transmissions Limited
J-7, MIDC Industrial Area
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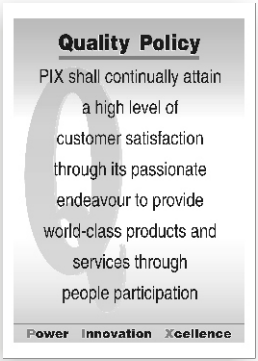
Nagpur - 440 016
Maharashtra, India

ISO 9001:2000


Quality Policy

PIX shall continually attain a high level of customer satisfaction through its passionate endeavour to provide world-class products and services through people participation

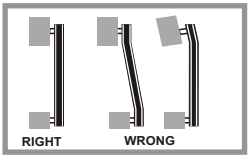
Power Innovation Xcellence

IBExU Institut für Sicherheitstechnik GmbH
Directive 94/9/EC
Test Report No. : IB-03-4-934
Ex II 2GD c IIB X

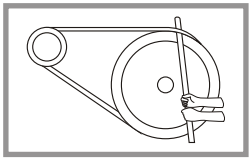
US Department of Labor
Mines Safety & Health Administration (MSHA)
Marking No. : MSHA IC-226

Installation

Installation & Maintenance



Ensure perfect alignment of pulleys



Do not pry or roll V-belts into the pulley grooves

Installation :

- Loosen belts and nuts before installing the new belt.
- Do not force the belt into the pulley groove because it may get damaged.
- Check the condition of pulley groove. If the belt falls in groove or if the pulleys are worn out, then replace the pulleys.
- Ensure perfect alignment of pulleys.

Replacement :

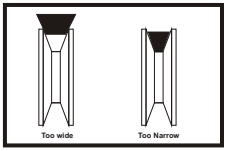
Release the fan belt tension by slackening the generator / ancillary drives bolts and adjusting the screws. Remove the old belt. Check the old fan belt for any visible damage. Rectify the defects, if any into the drive.

Install new Automotive belt over the pulleys. Locate belts carefully over the water pump, generator and ancillary drive pulleys. Finally stretch the belt by hand and adjust the tension adjustment bolt / screw till the belt drive is sufficiently tensioned.

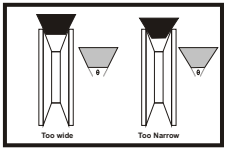
Note : Never use the lever to pry / install the belts over pulley.

Causes of failure

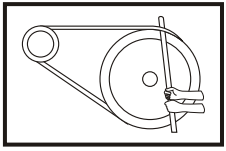
Possible Causes and Failure :



Belt Top width Incorrect : A belt which is too wide for the particular application will fit ride out over the pulleys, causing the sheaves to cut the ride side of the belts. Similarly belt with too narrow width will ride in on the pulleys and it may even contact the base instead of the flanges. This will result in belt slip because the adjustment is insufficient to provide the sufficient tension.



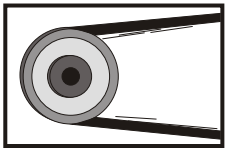
Wrong belt angle : In its free state the belt angle is slightly larger than the pulley angle. The two angles become the same when the belt is flexed round the pulley, and so maximum contact is obtained. Too large or too small belt angle may reduce the contact area, increase its working pressure and cause an early failure of the belt.



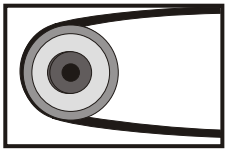
Incorrect Fitting Method : If excessive force or lever is used when fitting a new belt, it is possible that the internal structure particularly the tension cord will be damaged or broken. Cut marks may also be developed in the belts. Similarly the pulley flanges may be distorted, resulting in short belt life.

Causes of failure

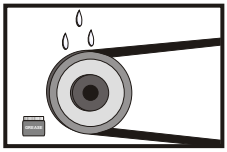
Excessive tension : This will create undue wear on the belt, pulleys, water pump and generator bearings. It may lead to a premature failure of the belt.



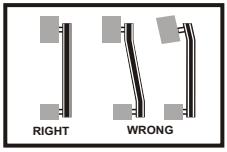
Slackness : This will cause belt slip, producing squeal, excessive heating and abrasion. It will also result in a reduced generator charging rate and over heating of the engine. This will generate a squealing noise.



Contamination : Oil, grease, or any similar contaminant will reduce the coefficient of friction between the belt and the pulleys, causing belt slip and generation of excessive heat. PIX fan belts should run dry and no lubricant should be used.



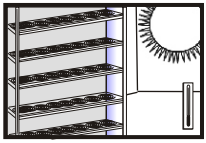
Misalignment : Pulleys which are bent or out of alignment with each other causes the belt to flex at least once every revolution. This may result in premature belt failure and undue wear on water pump and generator bearing.



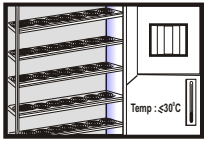
Storage

Storage :

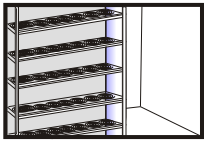
Do not expose the belts to direct sunlight and keep them away from the vicinity of magnetic field generating devices eg. Transformers & motors.



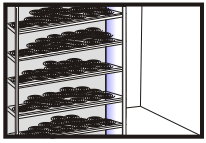
Always keep the belts in cool and dry place.



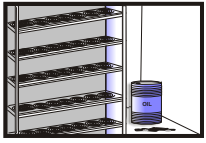
Store the belts in a shelf or hung on racks. Avoid placing the belts on the floor.



Avoid storing the belts in heavily bent or piled condition.



Keep the belts away from oil, grease and steam.

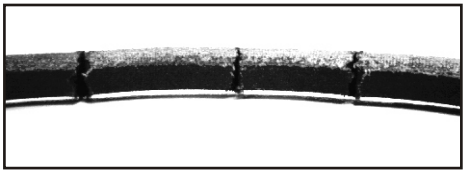


FAQ’s

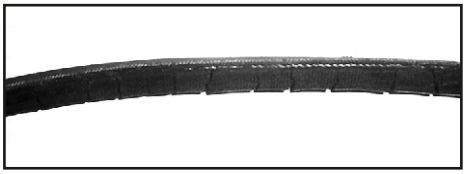
FAQ’s

When should the fan belt be replaced?

- If the bottom of the belt is cracked.

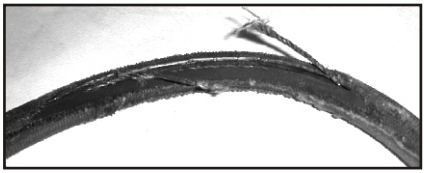


- If cracks are observed on side walls of the belt.



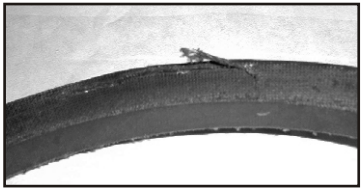
FAQ's

• If the rubber has come out due to tearing off or wearing off of the top cover fabric



• The appearance of the belt is greasy

• Inside cord has come out



Service guide

V-belt Service Guide

REASONS \ EFFECTS	Belt broken	Belts ride in	Wobbling in pulleys	Repeated tensioning	Bottom cracks	Worn out belt sides	Belts turnover or jumps off pulley	Back cover peel off	Belt slippage	Swelling of belt	Split in belt cover	Belts ride out	Excessive vibration
Misalignment in pulleys						●							●
Wrong installation of pulley			●										
Storage not proper					●	●							
Belt abrasion						●							
Reverse idler					●			●					
Forcing of belt on pulleys	●						●				●		
Pulley dia smaller than recom'd					●								
High levels of moisture						●			●				
Belts from different manufacturer													●
Large dist. betn. pulleys and bearings													
Rubbing of belts						●		●					
Incorrect belt cross section		●		●		●	●		●			●	
Foreign particles	●						●				●		
High temperature					●	●							
Pulleys damaged or worn out		●	●	●	●	●			●				●
More tension	●												●
Less tension				●		●	●		●				●
Shocks	●						●						●
Oily condition						●			●	●			

Notes

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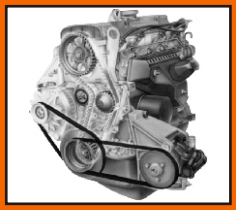

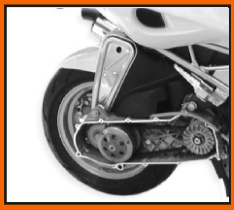

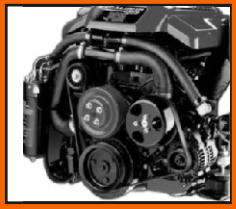

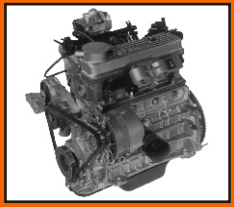

User's Guide (Auto Belts) (i), 9/2004/5000