

Assembly and Maintenance of the Timing Belt Drive LEZ 1

Intended Use

The timing belt feed unit LEZ 1 is intended for positioning fixtures, workpieces, tools, etc.. The maximum possible load on the carriage depends on the acceleration. The timing belt feed unit is available in different lengths with and without drive unit.



Risk of Bruising



Provide for sufficient protection against bruising during the operation

Assembling

The isel timing belt drive LEZ 1 is a completely assembled unit (eventually complete with drive motor)

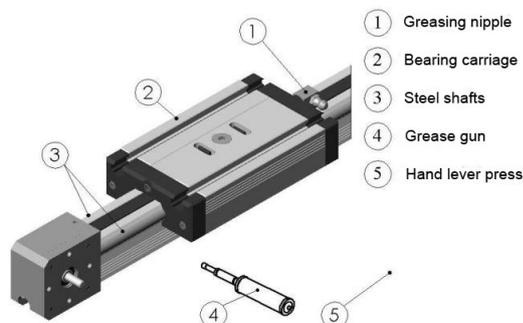
Cleaning

The isel timing belt drive LEZ 1 is a unit in open design. Clean the feed unit regularly of dust and splinters. No objects (e.g. splinters) may get underneath the timing belt and inside the profile or rest on the steel shafts

Basic Greasing

The timing belt feed unit LEZ 1 is completely greased ex factory and can immediately be taken into operation.

Only the two steel shafts (3) must be relubricated by using the greasing nipple (1) at the bearing carriage (2).



Greasing Instructions

Greasing takes place by means of a grease gun (4) or a hand lever press (5). Thereby 1 g lubricant equals to approx. three strokes of the isel grease gun (4). Lubrication takes place by the greasing nipple (1) at the face side of the bearing carriage (2).

Please consider that, in case of excessive application of force, the greasing nipple (1) can be pressed out of the plastic thread.

Proceed as follows:

1. If necessary, clean the steel shafts (3) and the greasing nipple (1) from dirt and solids.
2. Fit the grease gun onto the greasing nipple (1) and press one stroke of grease into the nipple
3. For distributing the inserted grease, move the bearing carriage (2) back and forth several times.
4. Continue with entry and distributing of grease until the desired quantity of grease is inserted.

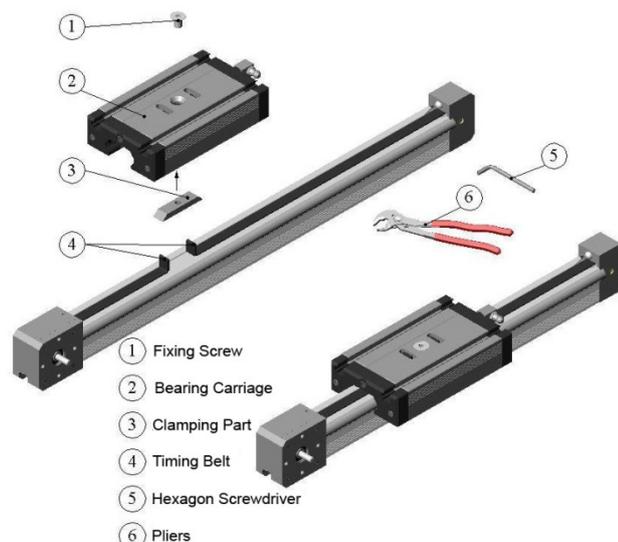
Greasing Schedule

Examine the grease film regularly along the two steel shafts and look for defects and contaminations. Relubricate if necessary. Without load and/or average loads, relubrication should take place every 300 operating hours with a sodium emulsified grease (GP00/00F-20 according to DIN 51 502 or a comparable grease (item no.: 299031)

Timing Belt Readjustment

Readjustment of the timing belt is not required under normal operating conditions. If it nevertheless should still be necessary, proceed as follows:

Fix an open end of the timing belt (4) at the bearing carriage (2) (possibly 2nd person). Using a hexagon screwdriver, carefully loosen the clamping (3) of the timing belt (4) by means of the lock screw (1). At the same time hold the other end of the timing belt (4) at the carriage (2) by using the pliers (6) and adjust the tension of the belt. Secure the tension of the belt by tightening the locking screw



Timing Belt Prestressing

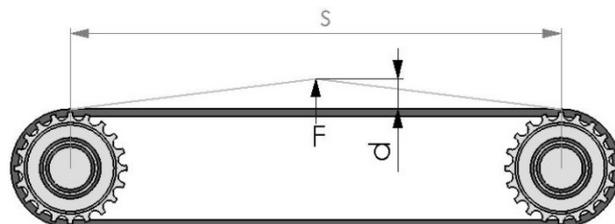
The timing belt should be mounted so tautly that the test load F deviates it from the straight line by $d = s/50$, measured at the half of the distance ($s/2$) between the two timing belt pulleys. The test load depends on the drive power and the belt speed. For adjusting the prestressing we recommend a test load $F = 5N \dots 10N$



An unnecessary high prestressing reduces the life span and boosts the operating noise of the drive, increases the bearing load and the wear of the pulley teeth



A prestressing that is too low can result in a situation where the teeth of the timing belt do not properly mesh with the pulley teeth and even jump over in case of an overload



Technical Data

Timing Belt Drive	LEZ 1
Aluminium Profile	LFS - 8 - 2 - W22 x H 32,5
Profile Weight	2.00 kg/m
Timing Belt (free from play)	HTD - 3M width 9 mm
Bearing Carriage	WS1 - L (96) 126 x W 72 mm
Feed per Revolution	60 mm
Repeat Accuracy	± 0.2 mm
Travel	Profile length L - 150 (120) mm
Max. Speed	1,5 m/s
Max. accelerable Mass (related to belt strength)	3 kg at 20 m/s ²
Lengths	L = 298 . . . 2,998 mm (Option: L max. = 5,998 mm)