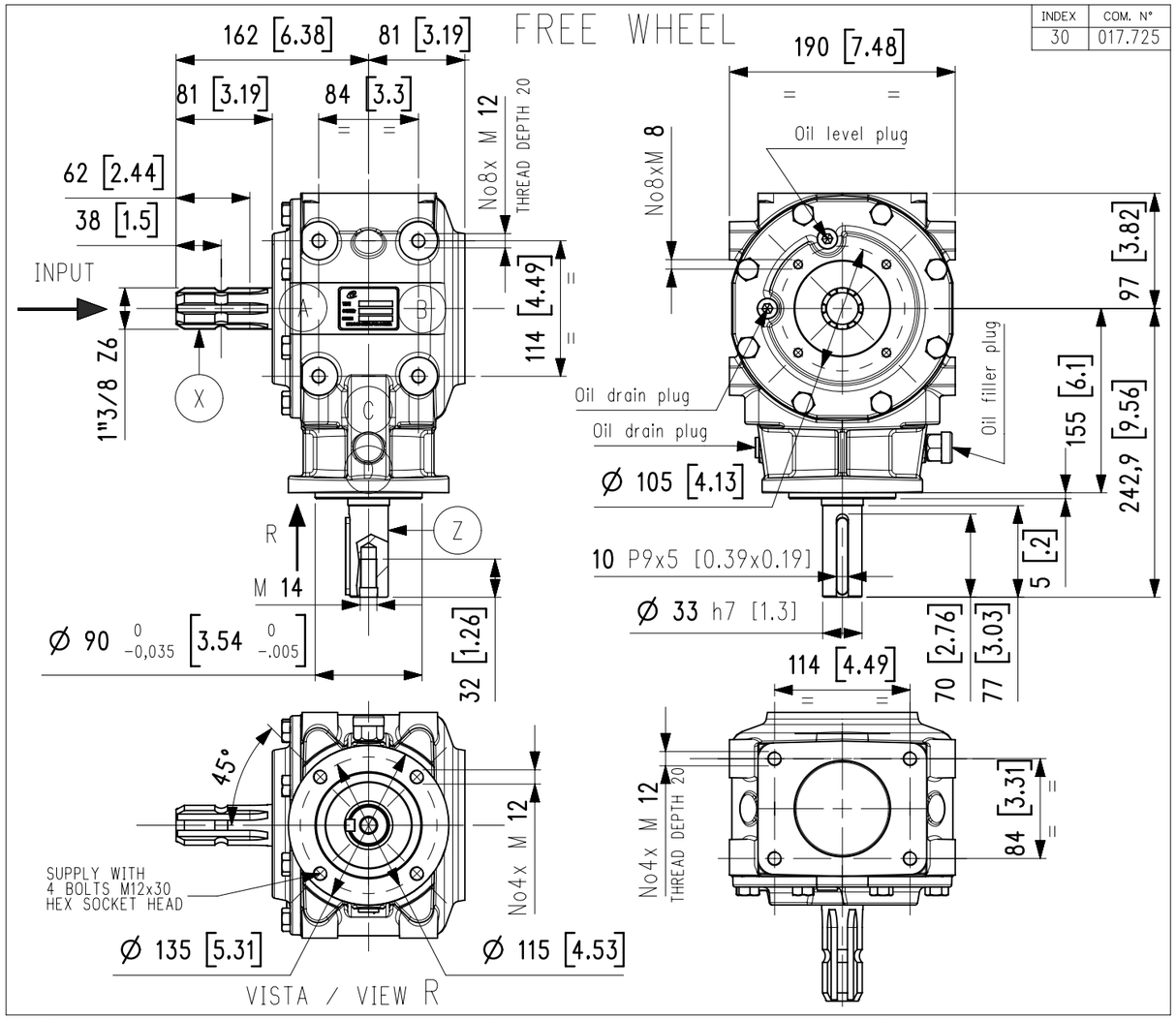
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| COMPANY | REF. | DESIGNATION |
|---|---|---|
| | | T-311J |
| | DATE | CODE |
| | 27/JUL/15 | 9.311.874.30 |

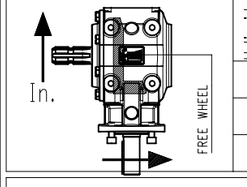
# FREE WHEEL

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| Ratio i | Rated input r.p.m. | Rated input power HP | Rated input power kW | Rated output torque da Nm | Weight Kg | Oil ☒ Lubricant Grease ☐ Type | Quantity Lt. |
|---|---|---|---|---|---|---|---|
| 1:3 | 540 | 50 | 36.8 | 21 | 20.2 | SAE.90EP | Lt. 1.2 |

SPEED INCREASING UNIT

| Gear Arrangement | Bevel couplings | | | | | | | Cylindrical couplings | | | | | | | Bearings | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Helicoidal | Straight | Teeth number Z 1 | Z 2 | Z 3 | Z 4 | Module M. | Helicoidal | Straight | Teeth number Z 1 | Z 2 | Z 3 | Z 4 | Module M. | A | 6307 |
| | | * | 12 | 36 | | | 4.35 | | | | | | | | B | 6307 |
| | | | | | | | | | | | | | | | C | 32207 |
| | | | | | | | | | | | | | | | D | 30207 |
| | | | | | | | | | | | | | | | E | |
| | | | | | | | | | | | | | | | F | |
| | | | | | | | | | | | | | | | G | |
| | | | | | | | | | | | | | | | H | |



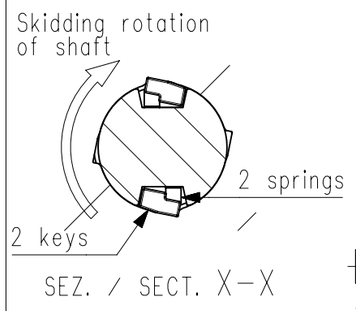
| Components material | | | | |
|---|---|---|---|---|
| Casing | Shaft X | Shaft Z | Bevel gear | Spur gear |
| EN-GJS-400-15 UNI-EN 1563 | 20 CrMnTi GB/T 3077 | 20 CrMnTi GB/T 3077 | 20 CrMnTi GB/T 3077 | |

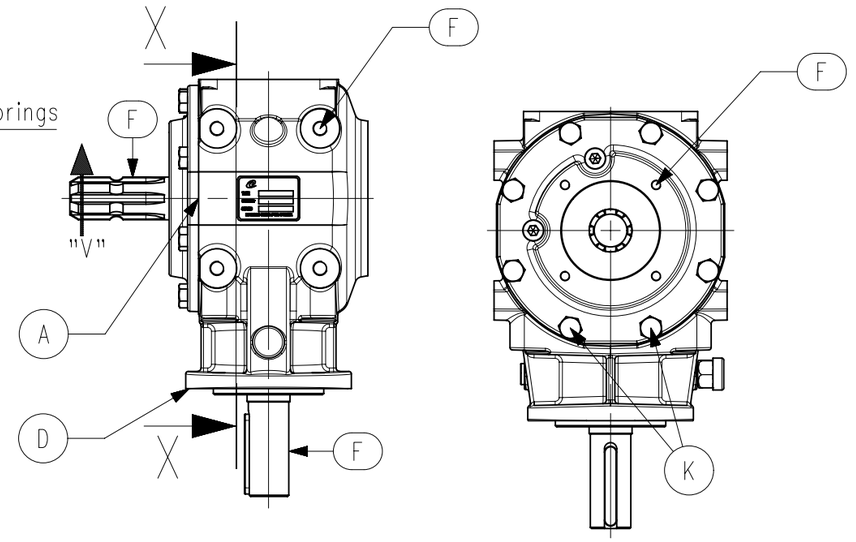
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COMER INDUSTRIES S.p.A. 42046 Villanova di Reggiolo (R.E.) Italia Tel. 0522\974111 (9 Linee) Telefax 0522\973249

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| RIF. | COMPANY: | | INDEX | COM. N° |
|---|---|---|---|---|
| | | | 30 | 017.725 |
| RATIO | FIG. MONT. | COD.LETT. T-311J | CODE | |
| 1:3 | 21-22 | COD.NUM. 311 | 9.311.874.30 | |




## NOTE DI MONTAGGIO

- Gioco di ingranamento 0.13-0.35 mm
- Precaricare l'asse di uscita a 4-10 kgcm senza paraolio
- Gioco asse entrata 0-0.2 mm senza paraolio
- Serrare le viti coperchio in pos. [A] a 5-6.4 kgm
- Avvitare le viti sulla flangia in pos. [D] senza precarichi
- Applicare silicone fra coperchio e scatola
- Nebulizzare all'interno della scatola con olio antiruggine come ultima operazione
- Le viti in pos. [K] vanno montate con silicone
- La freccia "V" indica la rotazione di lavoro dell'albero (si ha quindi lo slittamento con la rotazione opposta)
- In pos. [A] tra cuscinetto e corona mettere solo lo spessore 0.313.7000.00
- Aggiungere con pennello un sottile strato di molykote tipo "GN/PLUS sul Ø interno dell'ingranaggio e sul Ø esterno dell'albero, tralasciando le cave per linguetta
- Serraggio tappi olio 3 kgm max; ingrassare con grasso il foro prima di montare il tappo
- Paraolio in pos. [A]: applicare grasso al bisolfuro di molibdeno tra i due labbri

## ASSEMBLY NOTES

- Gear backlash 0.13-0.35 mm
- Preload the bearing of output shaft at 4-10 kgcm without oil seal
- Clearance input shaft 0-0.2 mm without oil seal
- Tighten the cover bolts in pos. [A] at 5-6.4 kgm
- Assemble the bolts 8.1.2.00311 on the flange in pos. [D] without preload
- Apply silicone sealant between cover and housing
- Spray antirust oil inside the housing at last operation
- Apply silicone sealant on bolts in pos. [K]
- The arrow "V" indicates the work rotation of shaft (so the skidding is with opposite rotation)
- In pos. [A] insert the shim 0.313.7000.00 only between bearing and gear crown
- Apply a small layer of molykote type "GN/PLUS" on inside Ø of gear and on outside Ø of shaft. Don't apply on keys seat
- Tighten oil plug at 3 kgm max; grease with grease the hole before assembling the plug
- Oil seal in pos. [A]: apply bisulphide molybdenum grease between principal lip and dust lip

| SPECIFICA CIS.1.01 PRODOTTO-PROCESSO *PRODUCT-PROCESS SPECIFICATION CIS.1.01* | | CLASSE FUNZIONALE *FUNCTIONAL CLASS* |
|---|---|---|
| (R) CARATTERISTICA REPORT *REPORT CHARACTERISTIC* | 0 | CF 3 |
| (I) CARATTERISTICA IMPORTANTE CRITICA *CRITICAL CHARACTERISTIC* | 0 | |
| (W) CARATTERISTICA DI ATTENZIONE *WARNING CHARACTERISTIC* | 0 | |
| (F) CARATTERISTICA DI FISSAGGIO CLIENTE *FIT CHARACTERISTIC* | 4 | |

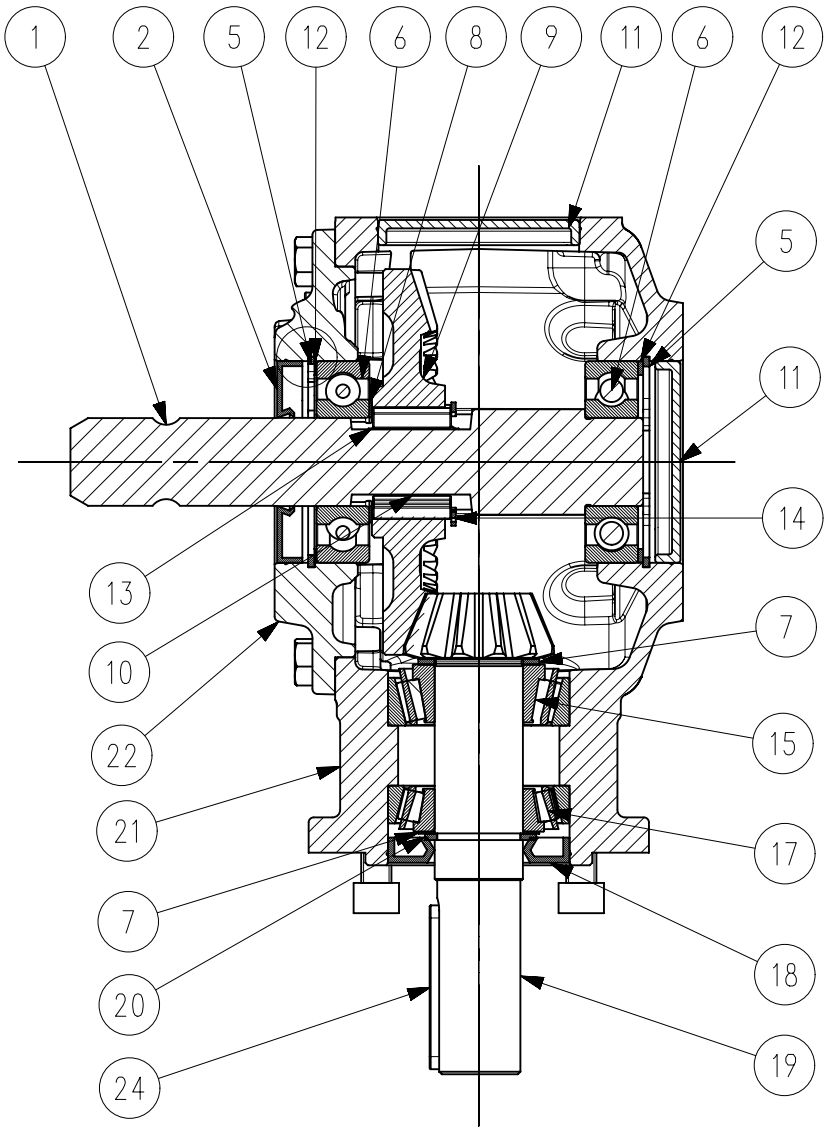
Theoretical shim

| | |
|---|---|
| [A] | 0.8 mm |
| [B] | 2 mm |
| [C] | 2.15 mm |
| [D] | 0.85 mm |

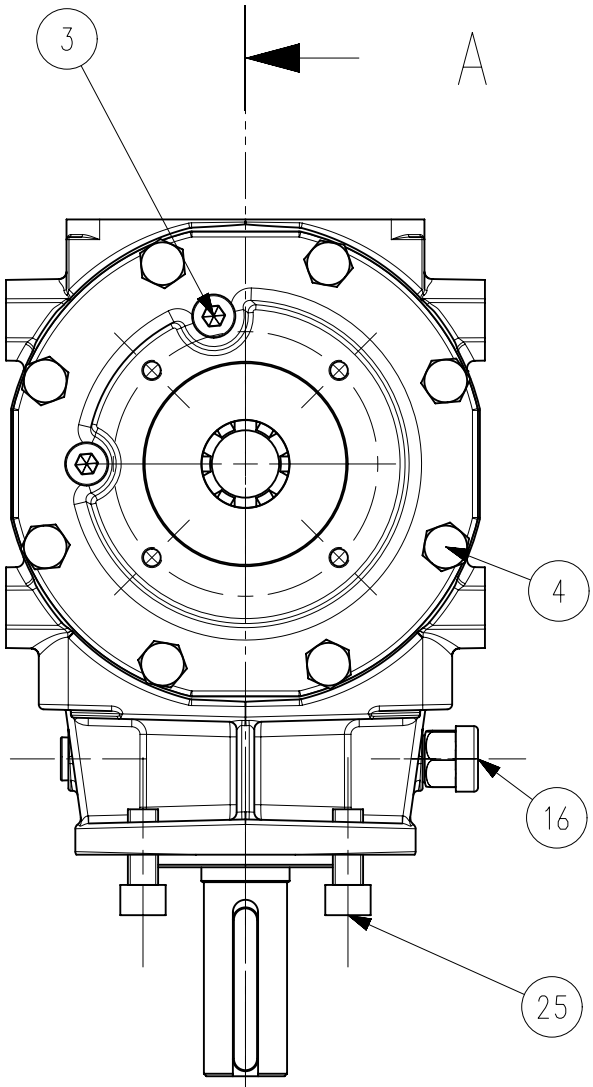
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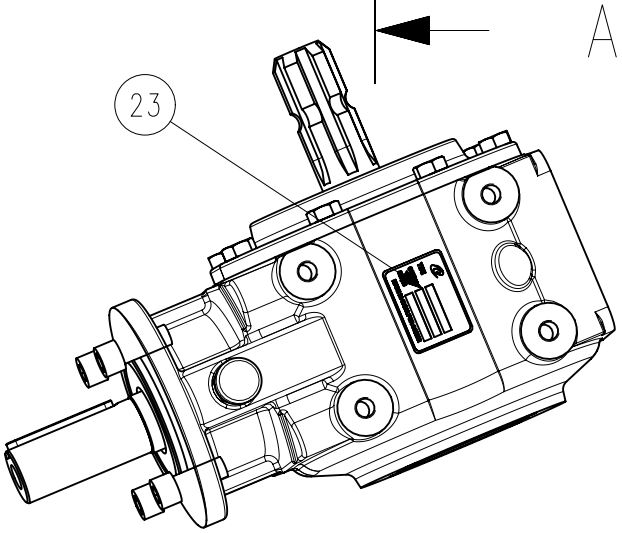
| COMPANY | REF. | DESIGNATION T-311J |
|---|---|---|
| | DATE 06/09/2015 | CODE 9.311.874.30 |

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SEZ. / SECT. A-A



| DESIGNATION GEAR BOX T-311J | CODE N° 9.311.874.30 |
|---|---|

| POS. | DRG. N. | PIEC | DESCRIPTION |
|---|---|---|---|
| 1 | 0.311.3201.00 | 1 | SHAFT 1"3/8 Z6 |
| 2 | 8.7.1.00315 | 1 | DOUBLE LIP SEAL 35X80X10 |
| 3 | 8.6.6.00201 | 3 | PLUG 3/8"GAS |
| 4 | 8.1.1.00061 | 8 | BOLT HH M10x25 UNI5739 8.8 |
| 5 | 8.5.2.00030 | 2 | SNAP RING HOLES D80 UNI7437 |
| 6 | 8.0.1.00049 | 2 | BALL BEARING 6307 |
| 7 | 0.259.7500.00 | 2 | SHIM KIT 35.3x48.0 |
| 8 | 0.313.7000.00 | 1 | SHIM 48.0x35.3x1 |
| 9 | 0.311.6221.00 | 1 | CROWN FREE WHEEL Z36 M4.35 |
| 10 | 0.267.7109.00 | 2 | KEY FOR FREE WHEEL |
| 11 | 8.7.0.00790 | 2 | CAP 80X10 |
| 12 | 0.267.7500.00 | 2 | SHIM KIT 69.0x79.9 |
| 13 | 0.267.7110.00 | 2 | SPRING . |
| 14 | 8.5.1.00712 | 1 | SNAP RING FOR SHAFT 42 UNI7435 |
| 15 | 8.0.9.00127 | 1 | TAPERED ROLLER BEARING 32207 |
| 16 | 8.6.7.00161 | 1 | BREATHER PLUG 3/8"GAS |
| 17 | 8.0.9.00026 | 1 | BEARING 30207 |
| 18 | 8.7.3.00055 | 1 | OIL SEAL 35X72X10 |
| 19 | 0.304.5011.00 | 1 | PINION SHAFT Z12 M4.35 |
| 20 | 8.5.1.00583 | 1 | SNAP RING FOR SHAFT 35 UNI7436 |
| 21 | 0.311.0303.00 | 1 | HOUSING |
| 22 | 0.311.1310.00 | 1 | COVER |
| 23 | 0.124.7135.00 | 1 | NAME PLATE |
| 24 | 8.4.1.01689 | 1 | PARALLEL KEY A 10x8x65 |
| 25 | 8.1.2.00311 | 4 | BOLT HSH M12x30 UNI5931 8.8 |