



**ALLISON  
BORG WARNER  
BROCKHOUSE  
CATERPILLAR  
CLARK • FUNK  
GRAZIANO  
HURTH • HYSTER  
KESSLER  
LINDE HYDRAULICS  
MITSUBISHI  
NISSAN  
ROCKWELL • TCM  
TOYOTA  
TWIN DISC  
VOLVO • VOITH  
ZF • AISIN  
OKAMURA**

**We have a large programme of transmission and drive axle parts, both new and rebuilt.**

## SERVICE EXCHANGE TRANSMISSIONS OR REMANUFACTURING PROGRAMME

*Your transmission may not let you down !*

A SPECIALIZED TEAM IS AT YOUR SERVICE FOR A QUICK AND EFFICIENT REPAIR!!!

**REBUILT TRANSMISSION UNIT:** Repair and possible test of all forklift transmissions. In your faulty unit, only repair of the assy is done and worn-out parts are replaced to make the assy useable again. Wear parts such as bearings, springs,... may be used again.

**REMANUFACTURING UNIT:** The reman unit is thoroughly cleaned, inspected and renewed to 'like new' condition. Reassembly is done using new wear items. The unit is fully inspected and tested. We have a large selection of reman units in stock.

### OUR PROGRAM CONSISTS OF THE FOLLOWING MAKES

**CLARK, FENWICK, HYSTER, TOYOTA, TCM, CATERPILLAR, YALE, MITSUBISHI, NISSAN, LINDE HYDRAULICS HURTH, VOITH, ZF, ALLISON, FUNK, TWIN DISC, BROCKHOUSE, BORG WARNER, GRAZIANO**

### TOTAL SOURCE® REMAN TRANSMISSION STANDARDS

All wear items are replaced with components that meet or exceed OEM specifications, such as

- All seals
- All gaskets
- All bearings
- All clutch discs and separators
- All springs
- All thrust washers
- Transmission pumps (new or remanufactured)
- All piston rings
- All synchronizers (manual units)
- The assemblies, if possible, are tested at operating temperature and with several speed intervals for:
  - proper clutch engagement
  - correct pressures
  - leak test
  - noise levels
- Strict quality standards, including a tracking system which verifies all reman steps

### TRANSMISSION WARRANTY POLICY

TOTAL SOURCE® warrants each remanufactured transmission to be free from defects in material or in workmanship during 6 months or 1000 working hours after delivery (whichever occurs first).

The warranty is subject to the following conditions:

- the unit must have been installed by a certified technician;
- the unit must not have undergone any (intents for) repair, modification or disassembly;
- damage as a consequence of abnormal use, overloading, misuse, abuse, improper installation or accident are not covered by the warranty;
- automatic transmissions must have a new or remanufactured torque converter;
- transmission cooling lines and radiator must be flushed;
- all filler lines must be flushed and filters replaced prior to installation.

A warranty claim on a unit will only be accepted if it shows normal use, and all housings, drums and converters can be re-used. If oil drained from the unit contains steel- and/or aluminium particles, it was not put to normal use and the warranty will be limited. In that case, TOTAL SOURCE® will charge an extra cost.

Warranty claims must be reported in accordance with TOTAL SOURCE®'s Complaint Handling Procedure (a "Return Application Form" is available in the Master Catalogue, via QuickSource, website, or on demand). Only after your warranty claim has been accepted, TOTAL SOURCE® will start working on your unit. TOTAL SOURCE® may either repair the unit, or may replace defective components.

SEPARATE SPARE  
PARTS AVAILABLE



**TOYOTA**



**BORG  
WARNER  
(CAT)**



**CLARK**



**CLARK**



**FENWICK**



**LINDE**

## TRANSMISSIONS

*Experts in CLARK transmissions !!!*

*Service exchange transmissions remanufacturing programme*



**All types of forklifts and following series:**

18.000 - 24.000 - 28.000 - 32.000 - 34.000 - 36.000 - 40.000 - CL 273

These transmissions are used in

**SVE-TRUCK, KALMAR, TERBERG, HYSTER, BELOTTI, PPM,...**

and in earthmoving & construction machines such as

**FAUN, GROVE, MICHIGAN,...**

***If you have a transmission problem,  
let us send you our best offer.  
Transmissions are directly available  
from stock.***

TRANSMISSION & DIFFERENTIAL SPARES



## PARTS USED FOR CLARK TRANSMISSION



## PARTS USED FOR ZF TRANSMISSION



## PARTS USED FOR ALLISON TRANSMISSION



## MANUAL TRANSMISSIONS

### Component parts:

Plates, discs, thrust bearings, seal kits, gears, forks, shafts,...



## AUTOMATIC TRANSMISSIONS

### Component parts:

Converter, transmission pumps, gears, discs, gears and bearings, shafts, springs, seal kits,...



## CONVERTER PARTS USED FOR POWER SHIFT TRANSMISSIONS



IMPELLER



TURBINE



STATOR

## TECHNICAL DETAIL: CLUTCH DRUM



### EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

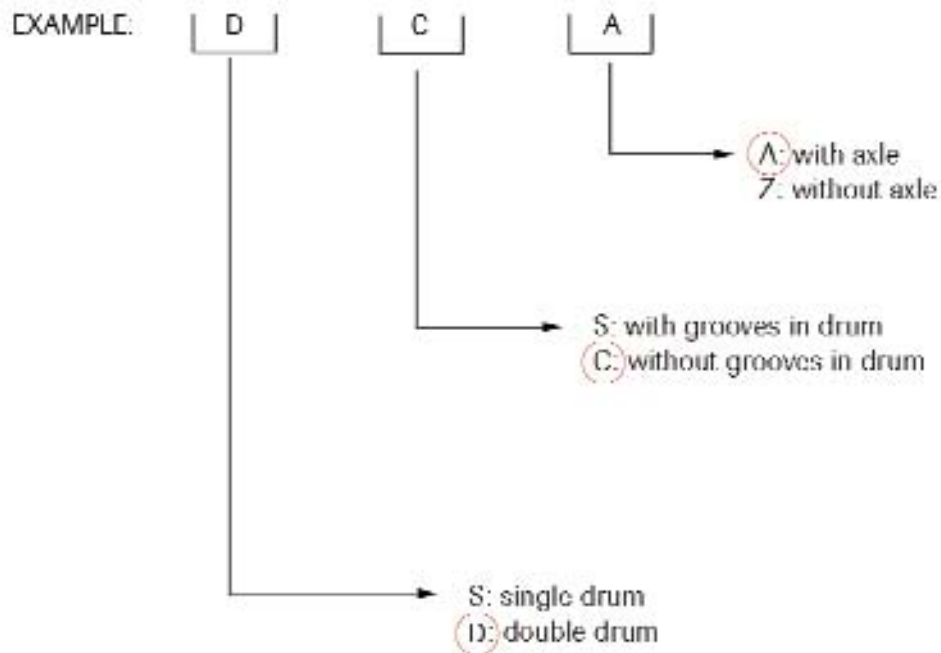
Truck type: ..... Serial nr.: .....

...	TY-CL	Type of clutch drum.
....	L1	Total length with shaft, see types.
....	D1	Diameter outer drum.
....	L2	Length of clutch drum.
....	D2	Diameter of outer drum gear.
...	Z1	Number of teeth on outer drum.
..	AT-SL	Number of grooves.
....	B	Width of the groove.
....	D3	Diameter segment zone.
..	AT-GR	Number of segment grooves.
....	D4	Diameter bearing ring on segments side (Side A).
....	D5	Diameter bearing ring on the other side (Side B).
....	D6	Diameter shaft gear on segments side.
...	Z2	Number of teeth on shaft gear, on segments side (see types).
....	D7	Diameter shaft gear on the other side.
...	Z3	Number of teeth on shaft gear, on other side of the segments (see types).
...	AC1	Number of splines on shaft on segments side (External splines have priority over internal splines)
...	AC2	Number of splines on shaft on other side (External splines have priority over internal splines).
....	D8	Diameter, see types.
...	AC3	Number of internal splines in the drum, only for types without shaft.
...	KPT	YES/NO. If clutch drum is complete.
..	TY-MA	YES = To be determined by truck type.



## TECHNICAL DETAIL: CLUTCH DRUM

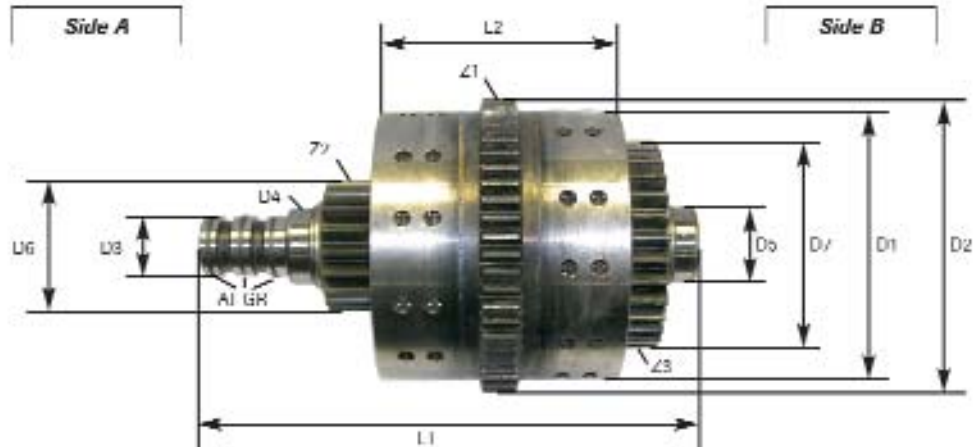
Indicate type of clutch drum:



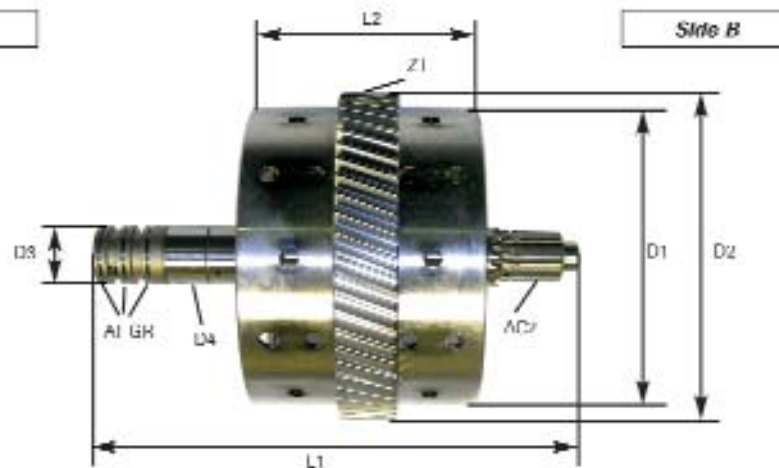
## DIMENSIONS

### CLUTCH DRUM WITH AXLE

TYPE DCA



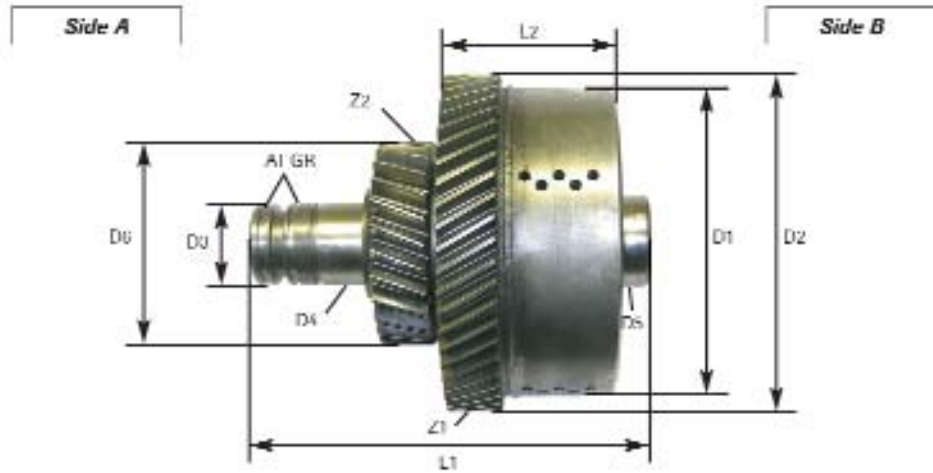
TYPE DCA



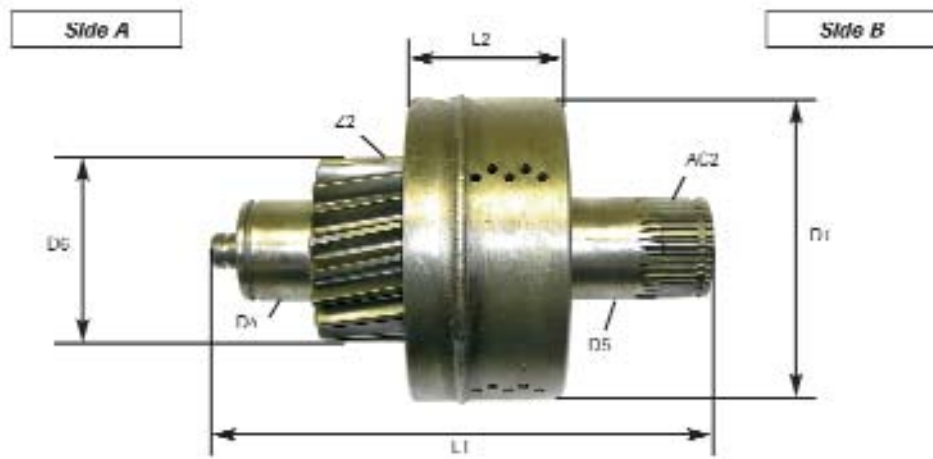
## TECHNICAL DETAIL: CLUTCH DRUM

### CLUTCH DRUM WITH AXLE

#### TYPE SCA

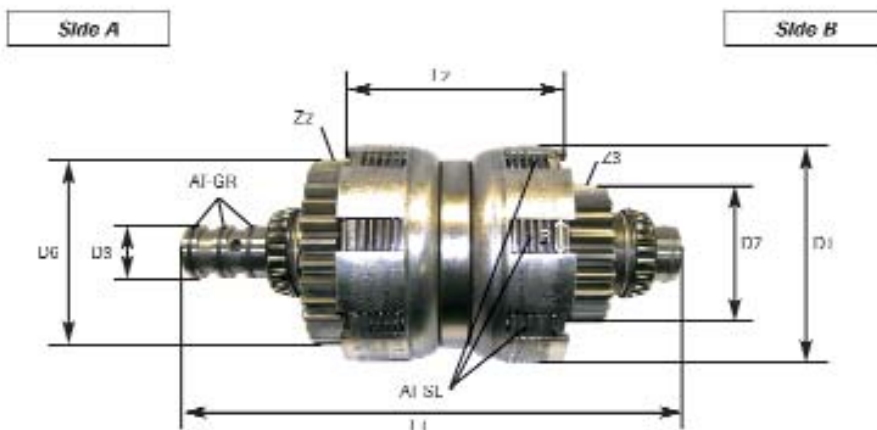


#### TYPE SCA



### CLUTCH DRUM WITH AXLE

#### TYPE DSA

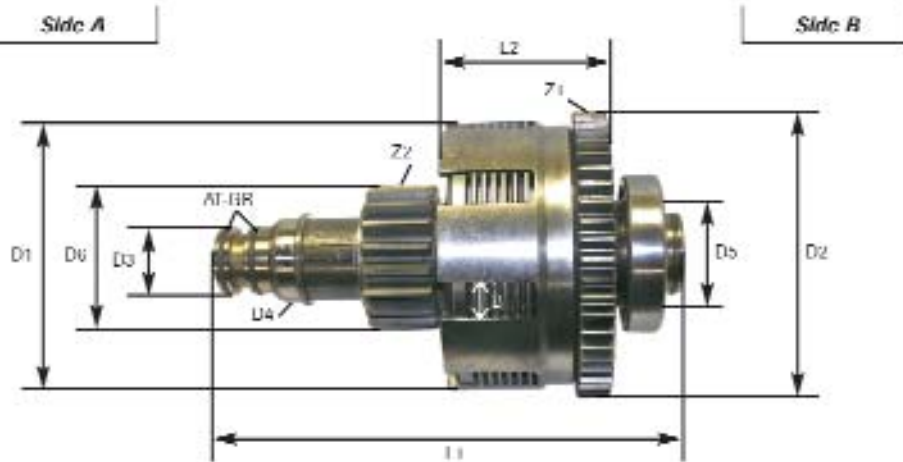




## TECHNICAL DETAIL: CLUTCH DRUM

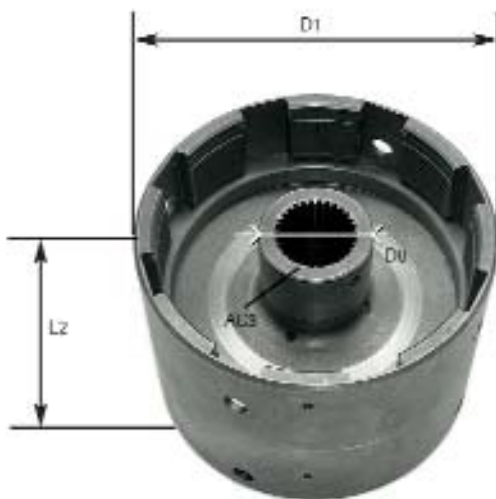
### CLUTCH DRUM WITH AXLE

TYPE SSA

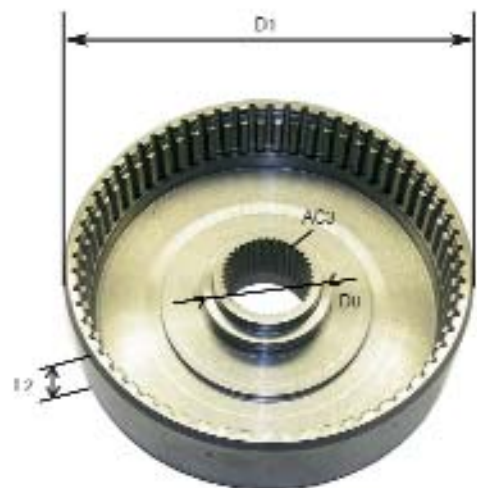


### CLUTCH DRUM WITHOUT AXLE

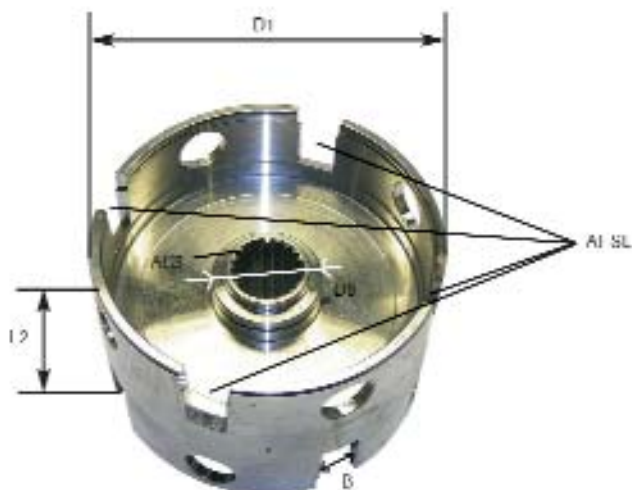
TYPE DCZ



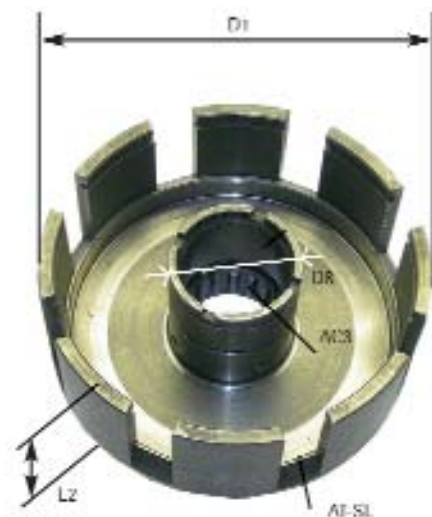
TYPE SCZ



TYPE DSZ

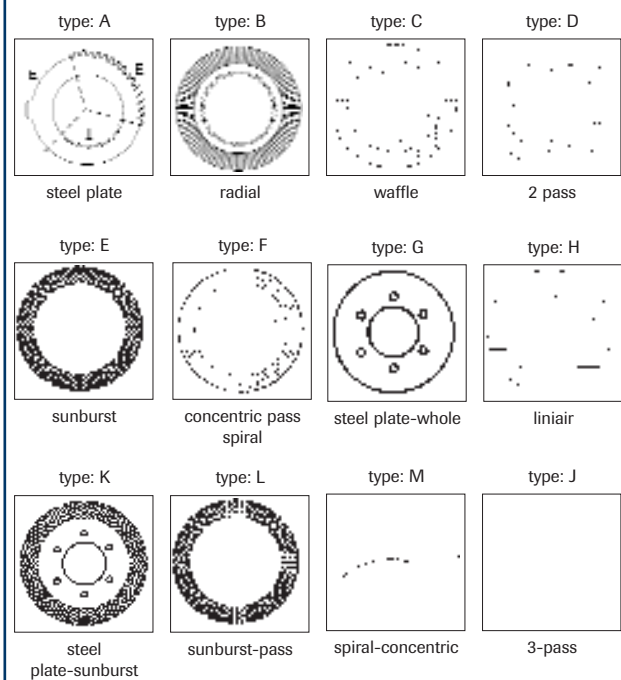


TYPE SSZ

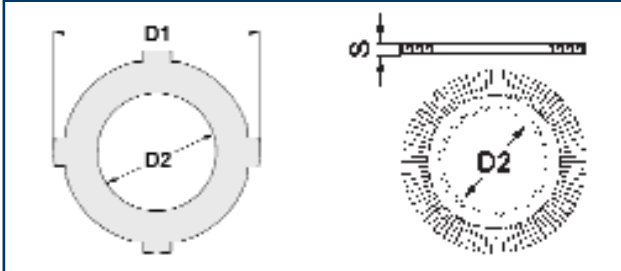


## TECHNICAL DETAIL: TRANSMISSION DISCS

### TYPES:



### DIMENSIONS:



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

Truck type: ..... Serial nr.: .....

### EXAMPLE



- 1 TY:..... type (as per picture)
- 2 D1: ..... max. outer diameter (mm)
- 3 D2: ..... inner diameter measured from tooth tip to tooth tip (mm)
- 4 S:..... thickness of lining (if type A total thickness) (mm)
- 5 AT-TA: ..... number of teeth
- 6 LG-TA:..... position of teeth: I = inner, E = outer, Z= no teeth
- 7 MAT:..... composite material of lining:
  - B & C = Bronze (sinter)
  - P = Paper
  - G = Graphite
  - S = Steel



*A slightly bent/spherical transmission disc exists with type A, If you have this type, please indicate the disc type as AX.*

## USED FOR HYSTER

REF	103TA8217
TYPE	D
D1	148,5
D2	107,6
S	1,8
AT-TA	52
LG-TA	I
MAT	P



## USED FOR NISSAN

REF	103TA8094
TYPE	A
D1	131
D2	80
S	1,6
AT-TA	8
LG-TA	E
MAT	S



## USED FOR NISSAN

REF	103TA8108
TYPE	A
D1	131,5
D2	80
S	1,6
AT-TA	42
LG-TA	E
MAT	S



## USED FOR NISSAN

REF	103TA8069
TYPE	D
D1	124,9
D2	68,5
S	2,6
AT-TA	41
LG-TA	I
MAT	P



## USED FOR HYSTER

REF	106TA7818
TYPE	A
D1	138,6
D2	99,6
S	1,8
AT-TA	54
LG-TA	E
MAT	S



## USED FOR HYSTER

REF	103TA8168
TYPE	A
D1	138,8
D2	99
S	3
AT-TA	54
LG-TA	E
MAT	S



## USED FOR HYSTER

REF	103TA8125
TYPE	D
D1	133,5
D2	92,8
S	2,2
AT-TA	44
LG-TA	I
MAT	P



## USED FOR KOMATSU

REF	103TA8068
TYPE	D
D1	124,9
D2	68,4
S	3
AT-TA	41
LG-TA	I
MAT	P



## USED FOR KOMATSU

REF	103TA8156
TYPE	A
D1	138
D2	80
S	3,2
AT-TA	4
LG-TA	E
MAT	S



## USED FOR CLARK

REF	103TA8250
TYPE	A
D1	154
D2	113,8
S	1,8
AT-TA	60
LG-TA	E
MAT	S



*This is only a small selection of what we can offer. Call our sales department for more details.*



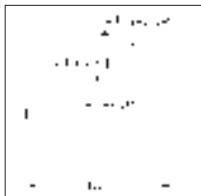
## TECHNICAL DETAIL: CONVERTER PLATES

FILL IN FORM  
TO FAX

### DIMENSIONS:

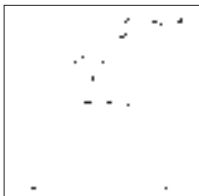
#### type 1:

type: A



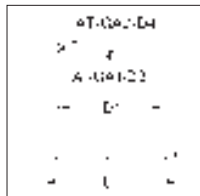
round

type: B



star

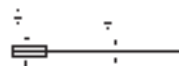
type: C



square or rectangular

#### type 2:

A: flat:



B: bent:



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

Truck type: ..... Serial nr.: .....

### EXAMPLE



- 1 TY1: ..... Type 1: see diagrams
- 2 TY2: ..... Type 2: see diagrams (flat or bent)
- 3 AT-LA: ..... Number of fins, only for type B
- 4 D1: ..... Inner diameter, see diagram (mm)
- 5 D2: ..... Outer diameter, see diagram (mm)
- 6 L1: ..... If TY1 = C (if rectangular, L1 is largest measurement)
- 7 H1: ..... Thickness of plate, see diagram (mm)
- 8 H2: ..... Total height of plate if bent, see diagram (mm)
- 9 AT-GA1: ..... Number of holes around central hole (= total number of holes)
- 10 D3: ..... Diameter of holes around central hole (if 2 different diameters, take the largest one), see diagrams (mm)
- 11 VTI: ..... Reinforced with an inner ring yes/no
- 12 AT-GA2: ..... Number of holes on outside
- 13 D4: ..... Diameter of holes on outside, see diagrams (mm)
- 14 TA: ..... Type of thread
- 15 VTU: ..... Reinforced on the outside yes/no
- 16 H3: ..... Thickness of outer reinforcement, see diagram

## USED FOR CLARK

REF	106TA7816
TY1	B
TY2	A
AT-LA	8
D1	123,5
D2	363
L1	0
H1	0,5
H2	0
AT-GA1	14
AT-GA2	8



## USED FOR CLARK

REF	106TA7817
TY1	C
TY2	A
AT-LA	0
D1	214
D2	0
L1	270
H1	1,5
H2	0
AT-GA1	4
AT-GA2	4



## USED FOR CLARK

REF	103TA8000
TY1	C
TY2	A
AT-LA	0
D1	214
D2	0
L1	270
H1	0,5
H2	0
AT-GA1	4
AT-GA2	4



## USED FOR KOMATSU

REF	103TA7995
TY1	B
TY2	B
AT-LA	4
D1	72
D2	340
L1	0
H1	1,2
H2	7
AT-GA1	12
AT-GA2	8



## USED FOR NISSAN

REF	103TA7985
TY1	A
TY2	A
AT-LA	0
D1	58
D2	306
L1	0
H1	1,5
H2	0
AT-GA1	8
AT-GA2	8



## USED FOR HYSTER

REF	103TA8025
TY1	B
TY2	B
AT-LA	4
D1	205
D2	338,5
L1	0
H1	2
H2	20
AT-GA1	4
AT-GA2	4



## USED FOR TCM

REF	103TA7982
TY1	A
TY2	A
AT-LA	0
D1	65
D2	342
L1	0
H1	2
H2	0
AT-GA1	6
AT-GA2	14



## USED FOR CLARK

REF	106TA7619
TY1	A
TY2	A
AT-LA	0
D1	133
D2	340
L1	0
H1	1,6
H2	0
AT-GA1	6
AT-GA2	6



## USED FOR CLARK

REF	103TA7969
TY1	A
TY2	A
AT-LA	0
D1	133,5
D2	186
L1	0
H1	2
H2	0
AT-GA1	0
AT-GA2	6



## USED FOR CLARK

REF	106TA7718
TY1	B
TY2	A
AT-LA	8
D1	133,7
D2	363
L1	0
H1	0,5
H2	0
AT-GA1	15
AT-GA2	8



*This is only a small selection of what we can offer. Call our sales department for more details.*



# NOTES

738





**NEW  
&  
REBUILT**

#### SERVICE EXCHANGE CONVERTERS

### *Remanufactured Torque Converters for Material Handling Applications*

We can offer nearly all torque converters for material handling applications. High quality remanufactured!  
We have a large stock of popular models ready for shipping.

**HYSTER, BORG WARNER, CATERPILLAR, MITSUBISHI,  
NISSAN, YALE, CLARK, TOYOTA, TCM, DAEWOO, KOMATSU,  
KALMAR, ZF, GRAZIANO, BAKER, FUNK, LANCER BOSS,  
LANSING, ALLIS CHALMERS, COVENTRY CLIMAX,  
AND MORE ...**

You can also send us your converter and we will repair it for you in no time.

If you don't have the exact partnumber, we can identify your converter very fast!

Also see our identification sheet...

*For more info  
contact us!*

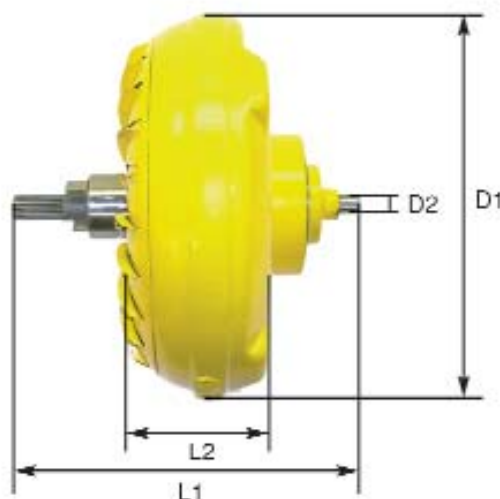
### EXAMPLE



### TYPE B

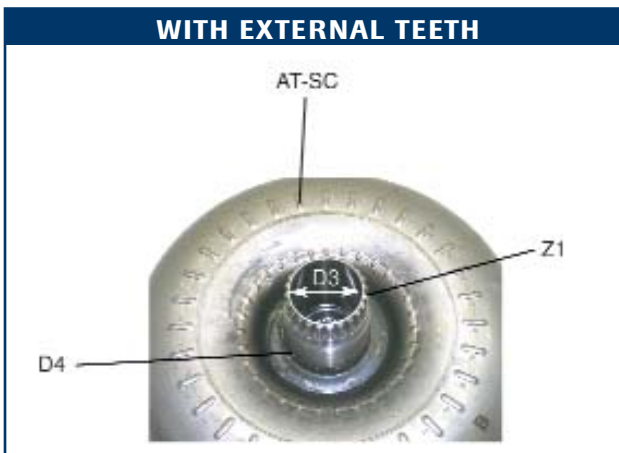
Truck type: ..... Serial nr.: .....

TY-MO ..... YES – Can only be determined with the engine type.

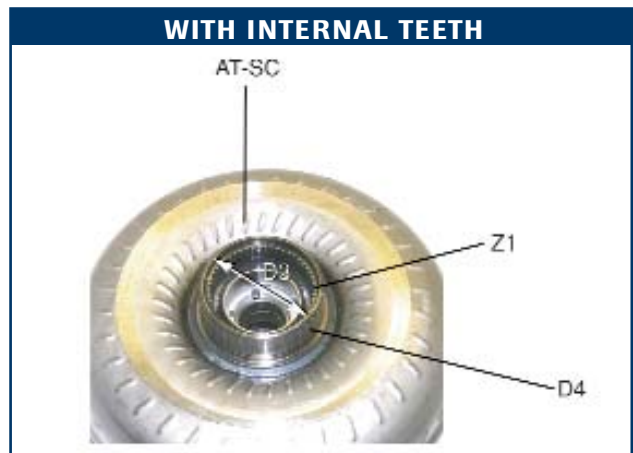


## TECHNICAL DETAIL: CONVERTERS

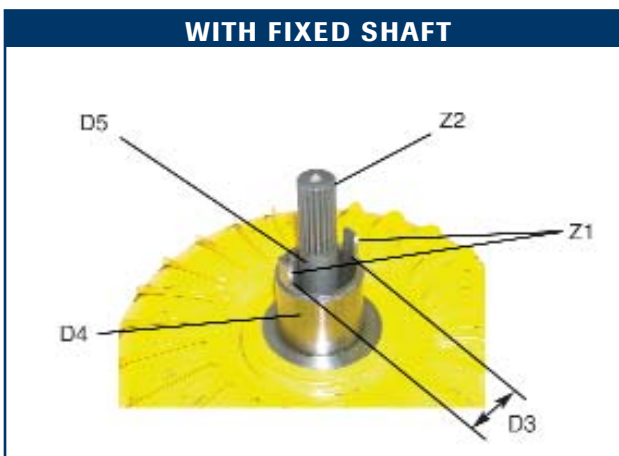
### WITH EXTERNAL TEETH



### WITH INTERNAL TEETH



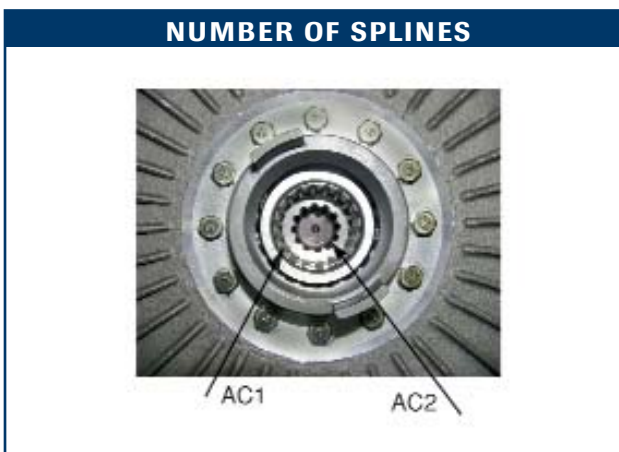
### WITH FIXED SHAFT



### DISTANCE



### NUMBER OF SPLINES





## TECHNICAL DETAIL: CLUTCH COVER ASSEMBLIES

FILL IN FORM  
TO FAX

### TYPES:

**type: A**



with regular fingers

**type: B**



with round fingers

**type: C**



with bearing

**type: D**



with diaphragm

Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

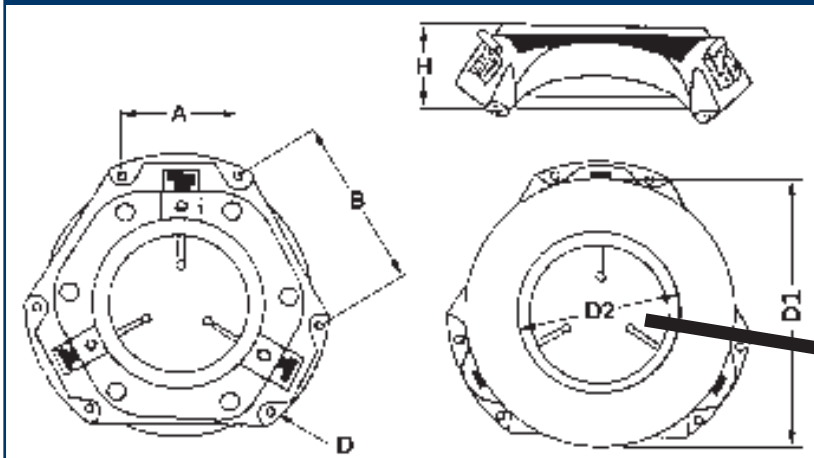
Truck type: ..... Serial nr: .....

### EXAMPLE



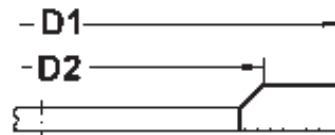
- 1 TY: ..... type (as per picture)
- 2 D1: ..... outer diameter retaining ring (mm)
- 3 D2: ..... inner diameter retaining ring (mm)
- 4 AT-VE: ..... number of springs
- 5 AT-VI: ..... number of fingers
- 6 A: ..... fixing hole dimensions, as per picture (mm)
- 7 B: ..... fixing hole dimensions, as per picture (mm)
- 8 H: ..... height of clutch cover only !!!

### DIMENSIONS:



#### remark:

when measuring D2, the tapered part must be included !



## USED FOR NISSAN

REF	103TA8707
TYPE	C
D1	252
D2	150
AT-VE	9
AT-VI	3
A	145
B	145
H	68



## USED FOR NISSAN

REF	103TA8693
TYPE	B
D1	275
D2	170
AT-VE	9
AT-VI	3
A	83
B	213
H	76



## USED FOR TOYOTA

REF	103TA8639
TYPE	A
D1	225
D2	156
AT-VE	9
AT-VI	3
A	105
B	156
H	62,5



## USED FOR TOYOTA

REF	103TA8653
TYPE	A
D1	277
D2	167
AT-VE	9
AT-VI	3
A	108
B	202
H	69



## USED FOR TOYOTA

REF	103TA8714
TYPE	C
D1	276
D2	162
AT-VE	6
AT-VI	3
A	108
B	202
H	69



## USED FOR TOYOTA

REF	103TA8711
TYPE	C
D1	275
D2	175
AT-VE	9
AT-VI	3
A	108
B	202
H	69



## USED FOR TOYOTA

REF	103TA8648
TYPE	A
D1	275
D2	174
AT-VE	6
AT-VI	3
A	108
B	202
H	69



## USED FOR MITSUBISHI

REF	103TA8656
TYPE	A
D1	278
D2	174
AT-VE	12
AT-VI	4
A	82
B	159
H	82



## USED FOR KOMATSU

REF	103TA8658
TYPE	A
D1	278
D2	174
AT-VE	12
AT-VI	4
A	82
B	159
H	82



## USED FOR MITSUBISHI

REF	103TA8654
TYPE	A
D1	277
D2	174
AT-VE	12
AT-VI	4
A	83
B	160
H	82



*This is only a small selection of what we can offer. Call our sales department for more details.*

## TECHNICAL DETAIL: CLUTCH FRICTION PLATES

Company: .....

Customer code: .....

Name: .....

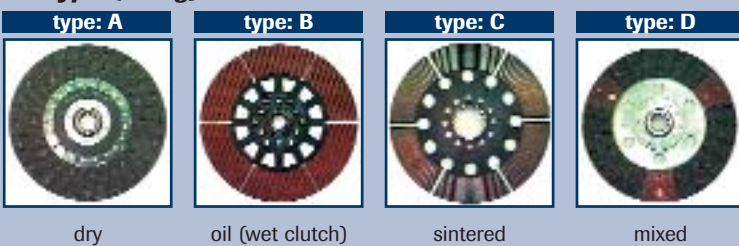
Fax number: .....

Truck make: .....

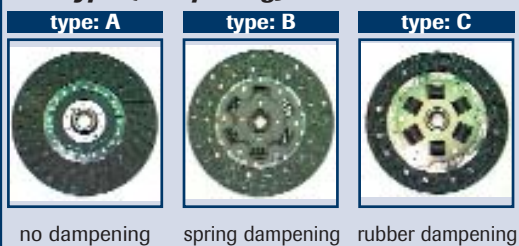
Truck type: ..... Serial nr.: .....



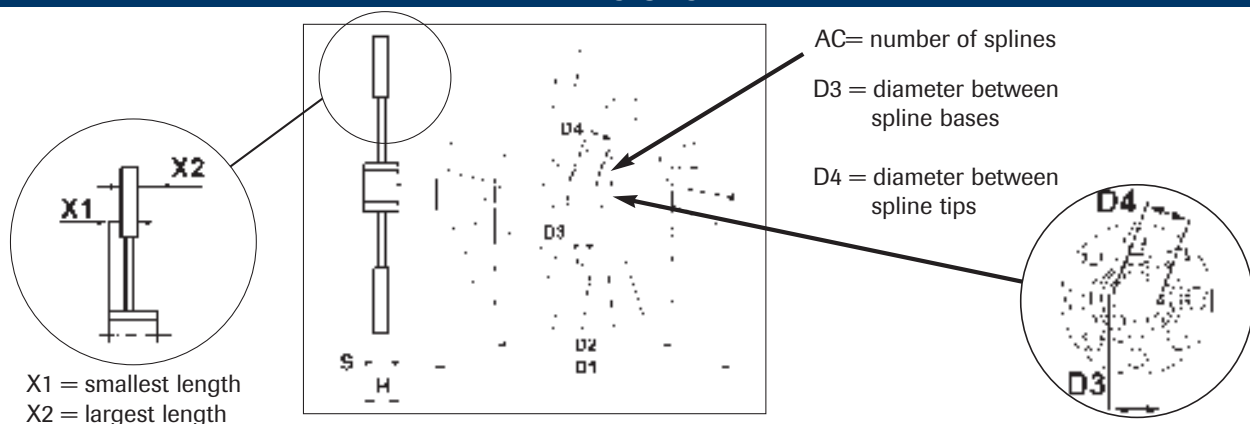
### 1st type (lining)



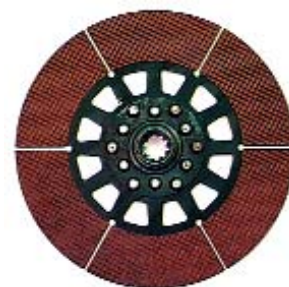
### 2nd type (dampening)



### DIMENSIONS:



### EXAMPLE



- 1 D1: ..... outer diameter of lining (mm)
- 2 D2: ..... inner diameter of lining (mm)
- 3 TY1: ..... type of lining (as per picture)
- 4 TY2: ..... type of dampening (as per picture)
- 5 D3: ..... diameter between spline bases (mm)
- 6 D4: ..... diameter between spline tips (mm)
- 7 AC: ..... number of splines
- 8 S: ..... thickness of lining (mm)
- 9 H: ..... height of boss (mm)
- 10 X1: ..... measurement, see pictures (mm)
- 11 X2: ..... measurement, see pictures (mm)



## USED FOR NISSAN

REF	103TA8902
D1	251
D2	161
TY1	A
TY2	B
D3	25,3
D4	22,5
AC	18
S	8,2
H	31
X1	0
X2	31



## USED FOR NISSAN

REF	103TA8926
D1	277
D2	176
TY1	A
TY2	B
D3	25,3
D4	22,6
AC	18
S	8,8
H	35,7
X1	13
X2	30,4



## USED FOR TOYOTA

REF	103TA8879
D1	224
D2	160
TY1	A
TY2	B
D3	29,1
D4	24,1
AC	10
S	8,1
H	26
X1	0
X2	26



## USED FOR TOYOTA

REF	103TA8918
D1	275
D2	175
TY1	A
TY2	B
D3	29,9
D4	24
AC	10
S	8,8
H	35
X1	13,5
X2	30,3



## USED FOR KOMATSU

REF	103TA8920
D1	275
D2	175
TY1	A
TY2	B
D3	28,1
D4	24,1
AC	12
S	8,5
H	34,7
X1	13,4
X2	29,2



## USED FOR HYSTER

REF	103TA8774
D1	353
D2	220
TY1	B
TY2	A
D3	35
D4	28,5
AC	10
S	6,6
H	45,8
X1	11,7
X2	39,5



## USED FOR MITSUBISHI

REF	103TA8917
D1	275
D2	180
TY1	A
TY2	B
D3	24,8
D4	21,6
AC	13
S	9,3
H	36,8
X1	12,5
X2	32,4



## USED FOR MANITOU

REF	103TA8931
D1	280
D2	165
TY1	A
TY2	B
D3	25
D4	21,5
AC	13
S	10
H	39
X1	18,2
X2	28,4



## USED FOR HYSTER

REF	103TA8768
D1	327
D2	204
TY1	B
TY2	A
D3	35,3
D4	28,5
AC	10
S	6,4
H	30,6
X1	15
X2	23,5



## USED FOR MITSUBISHI

REF	103TA8916
D1	275
D2	180
TY1	A
TY2	B
D3	24,9
D4	21,5
AC	13
S	9
H	35
X1	12
X2	30,7



*This is only a small selection of what we can offer. Call our sales department for more details.*

## SERVICE EXCHANGE DIFFERENTIALS OR REMANUFACTURING PROGRAM



*Your differential may not let you down!*

A SPECIALIZED TEAM IS AT YOUR SERVICE FOR A QUICK AND EFFICIENT REPAIR!

**REBUILT DIFFERENTIAL UNIT:** Repair of your faulty unit (an economical repair of the assy is done and worn-out parts are replaced to make the assy useable again.) and possible test of all forklift differentials.

**REMANUFACTURING UNIT:** The reman unit is thoroughly cleaned, inspected and renewed to 'like new' condition. Reassembling is done using new wear items. The unit is fully inspected and tested. A large selection of remanufacturing units are in stock.

### OUR PROGRAM CONSISTS OF THE FOLLOWING MAKES

**ROCKWELL, KESSLER, KIRCKSTALL, VOLVO, CLARK, HURTH, TOYOTA, MITSUBISHI, NISSAN, ...**

### TOTALSOURCE® REMAN DIFFERENTIAL STANDARDS

All wear items are replaced with components that meet or exceed OEM specifications, such as

- All seals
- All gaskets
- All bearings
- All washers
- Proper installed gear and pinion
- The assemblies, if possible, are tested at operating temperature and with several speed intervals for
  - right clearances
  - proper gear and pinion adjustments
  - correct pressures
  - leak test
  - noise levels
- Strict quality standards, including a tracking system which verifies all reman steps

### DIFFERENTIAL WARRANTY POLICY

TotalSource® warrants each remanufactured [differential] to be free from defects in material or in workmanship during 6 months or 1000 working hours after delivery (whichever occurs first).

The warranty is subject to the following conditions:

- the unit must have been installed by a certified technician;
- the unit must not have undergone any (intents for) repair, modification or disassembly;
- damage as a consequence of abnormal use, overloading, misuse, abuse, improper installation or accident are not covered by the warranty.

A warranty claim on a unit will only be accepted if it shows normal use, and the main housing can be re-used. If oil drained from the unit contains steel- and/or aluminium particles, it was not put to normal use and the warranty will be limited. In that case, TotalSource® will charge an extra cost.

Warranty claims must be reported in accordance with TotalSource®'s Complaint Handling Procedure (standard Form is available in the Master Catalogue, via QuickSource, website, or on demand). Only after your warranty claim has been accepted, TotalSource® will start working on your unit.

TotalSource® may either repair the unit, or may replace defective components.

## DIFFERENTIAL SPARES

Differential spares available for:

**ROCKWELL**

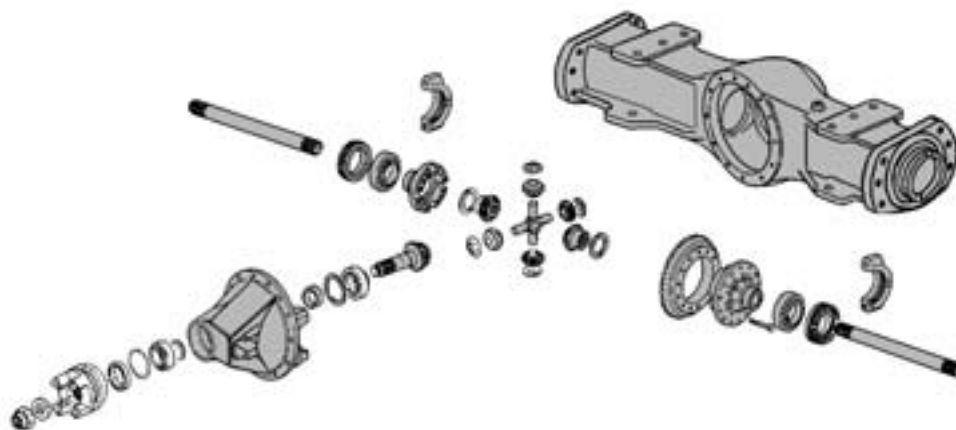
**KIRCKSTALL**

**KESSLER**

**CLARK**

**VOLVO**

**HURTH**



## AXLE ENDS ASSEMBLY

Component parts:

Ring gear and pinion, case and gear, washers, drive axle, shafts, bearings, seals, cases,...



## TECHNICAL DETAIL: GEAR AND PINIONS

### EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

Truck type: ..... Serial nr.: .....

- ① **TY-KR** ..... type of gear (see types)
- ② **D1** ..... smallest internal diameter gear
- ③ **D2** ..... largest internal diameter gear
- ④ **AC1** ..... number of splines (only with type C)
- ⑤ **D3** ..... external diameter gear
- ⑥ **T1** ..... number of teeth gear
- ⑦ **RH/LH** ..... direction of teeth on gear (see pictures)
- ⑧ **L1** ..... total length pinion
- ⑨ **T2** ..... number of teeth on pinion
- ⑩ **AC2** ..... number of splines pinion (if any)



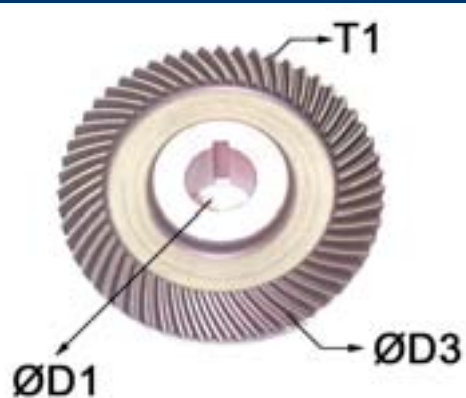
## TECHNICAL DETAIL: GEAR AND PINIONS

**TYPE A**



A : inner hole is completely round

**TYPE AA**



AA : inner hole is round with one spline

**TYPE B**



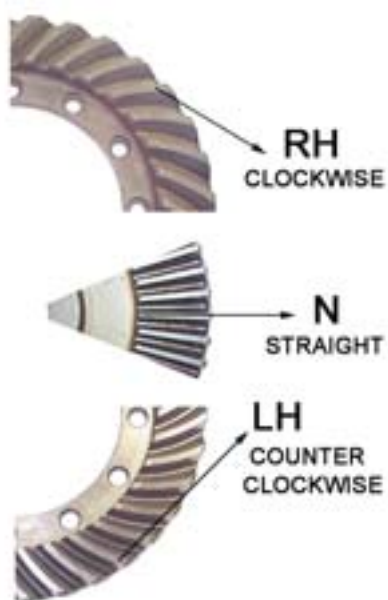
B: inner hole is tapered

**TYPE C**



C: inner hole with splines

**DIRECTION OF TEETH**



**MEASUREMENTS**



## USED FOR HYSTER

REF	103TA8996
TY-KR	A
D1	158,7
D2	0
AC1	0
D3	304,2
T1	42
RH/LH	RH
L1	209,4
T2	6
AC2	27



## USED FOR TOYOTA

REF	103TA9020
TY-KR	A
D1	145
D2	0
AC1	0
D3	286,7
T1	35
RH/LH	LH
L1	207
T2	6
AC2	18



## USED FOR LANSING

REF	107TA8367
TY-KR	C
D1	31,2
D2	35,7
AC1	16
D3	150
T1	41
RH/LH	RH
L1	126,9
T2	6
AC2	13



## USED FOR AMEISE-JUNGHEINRICH

REF	103TA9102
TY-KR	C
D1	52
D2	60,3
AC1	8
D3	199
T1	47
RH/LH	RH
L1	173
T2	7
AC2	6



## USED FOR BT

REF	103TA9095
TY-KR	C
D1	45,3
D2	50,5
AC1	24
D3	182,7
T1	40
RH/LH	RH
L1	149,6
T2	7
AC2	6



## USED FOR CLARK

REF	103TA9101
TY-KR	A
D1	178,8
D2	0
AC1	0
D3	269,3
T1	44
RH/LH	LH
L1	153,5
T2	7
AC2	27



## USED FOR TOYOTA

REF	103TA9021
TY-KR	A
D1	175
D2	0
AC1	0
D3	286,9
T1	35
RH/LH	LH
L1	203,3
T2	6
AC2	18



## USED FOR AMEISE-JUNGHEINRICH

REF	107TA8368
TY-KR	C
D1	46
D2	54
AC1	8
D3	152,7
T1	32
RH/LH	RH
L1	135,7
T2	7
AC2	6



## USED FOR STEINBOCK

REF	107TA8369
TY-KR	C
D1	46,1
D2	50,6
AC1	24
D3	169,8
T1	37
RH/LH	RH
L1	206
T2	6
AC2	6



## USED FOR MIC

REF	107TA8370
TY-KR	C
D1	38
D2	42
AC1	21
D3	176
T1	43
RH/LH	RH
L1	159,5
T2	7
AC2	13



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## USED FOR BT

REF	107TA8371
TY-KR	C
D1	25,4
D2	28,6
AC1	17
D3	125
T1	34
RH/LH	RH
L1	118,4
T2	7
AC2	14



## USED FOR AMEISE-JUNGHEINRICH

REF	107TA8372
TY-KR	C
D1	55
D2	60,2
AC1	28
D3	208
T1	41
RH/LH	RH
L1	169,5
T2	7
AC2	6



## USED FOR HYSTER

REF	103TA8992
TY-KR	A
D1	159
D2	0
AC1	0
D3	304,4
T1	42
RH/LH	RH
L1	209
T2	6
AC2	27



## USED FOR HYSTER

REF	103TA8981
TY-KR	C
D1	38
D2	42,2
AC1	21
D3	198
T1	41
RH/LH	RH
L1	223,5
T2	6
AC2	18



## USED FOR KOMATSU

REF	103TA8997
TY-KR	A
D1	144
D2	0
AC1	0
D3	229,7
T1	31
RH/LH	LH
L1	271,2
T2	6
AC2	19



## USED FOR BT

REF	103TA9036
TY-KR	C
D1	46
D2	50,2
AC1	8
D3	171,5
T1	37
RH/LH	RH
L1	151
T2	6
AC2	6



## USED FOR FENWICK

REF	103TA9164
TY-KR	A
D1	30
D2	0
AC1	0
D3	139,4
T1	55
RH/LH	RH
L1	26,2
T2	14
AC2	12



## USED FOR FENWICK

REF	107TA8373
TY-KR	A
D1	163,5
D2	0
AC1	0
D3	289,3
T1	39
RH/LH	LH
L1	293,7
T2	7
AC2	14



## USED FOR LANSING

REF	103TA9032
TY-KR	C
D1	41,3
D2	45,4
AC1	22
D3	146
T1	37
RH/LH	RH
L1	123,6
T2	6
AC2	6



## USED FOR ATLET

REF	107TA8374
TY-KR	C
D1	59,1
D2	63,5
AC1	29
D3	208
T1	43
RH/LH	RH
L1	172
T2	8
AC2	21



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## TECHNICAL DETAIL: DIFFERENTIAL CROSS

### EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

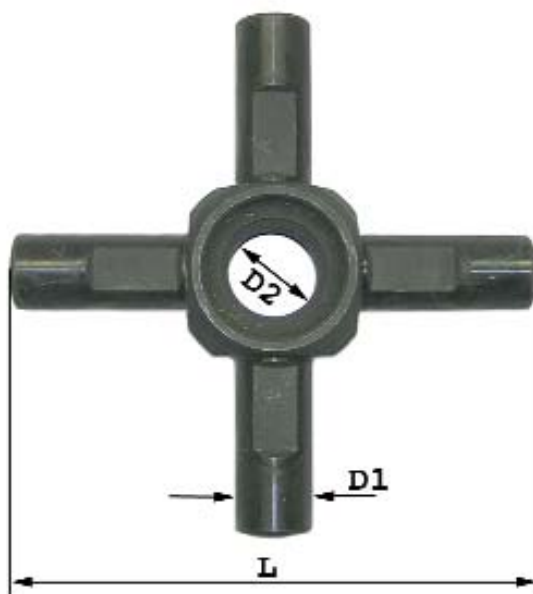
Truck make: .....

Truck type: ..... Serial nr.: .....

1 L: ..... total length (see picture)

2 D1: ..... diameter (see picture)

3 D2: ..... diameter (see picture)





## TECHNICAL DETAIL: GEAR CONSTRUCTION

### EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

Truck make: .....

Truck type: ..... Serial nr: .....

.. TY-TW ..... type of gear, see types

..., D1 ..... dimension, see types

..., B1 ..... dimension, see types

... Z1 ..... number of teeth largest gear

..., H1 ..... dimension, see types

..., D2 ..... dimension, see types

..., B2 ..... dimension, see types

... Z2 ..... number of teeth 2nd largest gear

.. Z3 ..... number of teeth 3rd largest gear

.. Z4 ..... number of teeth 4th largest gear

. TY-BV ..... type of inner mounting, see types

..., D3 ..... dimension, see types of inner mounting

..., D4 ..... dimension, see types of inner mounting

..., B3 ..... dimension, see types of inner mounting

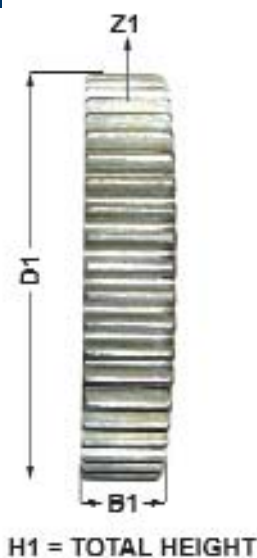
... AC ..... number of splines inner mounting

## TECHNICAL DETAIL: GEAR CONSTRUCTION

### SINGLE GEARS

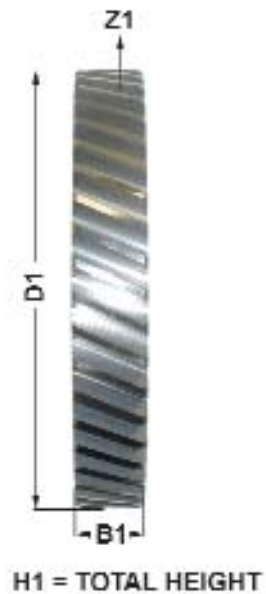
#### STRAIGHT TEETH

##### TYPE R



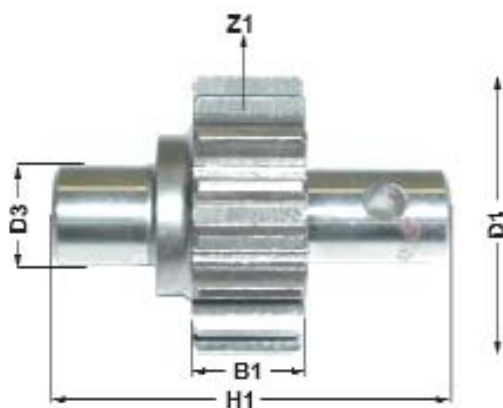
#### INCLINED TEETH

##### TYPE S



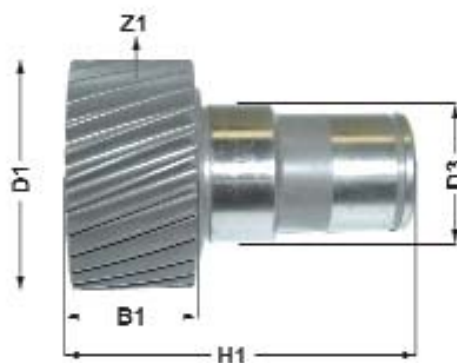
#### STRAIGHT TEETH AXLE

##### TYPE RA



#### INCLINED TEETH AXLE

##### TYPE SA



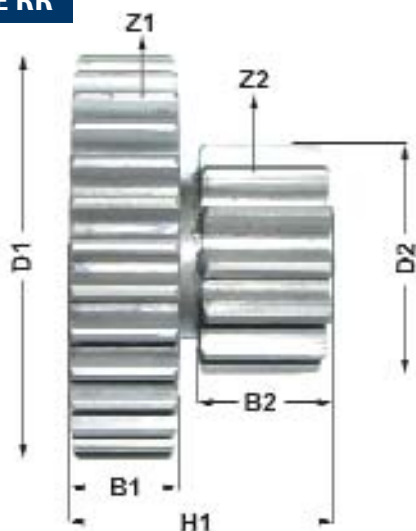
**ATTENTION :** Gear and axle in one piece : AXLE  
 Gear and axle consisting of 2 different parts : NO AXLE

## TECHNICAL DETAIL: GEAR CONSTRUCTION

### DOUBLE GEARS

#### STRAIGHT-STRAIGHT TEETH

##### TYPE RR



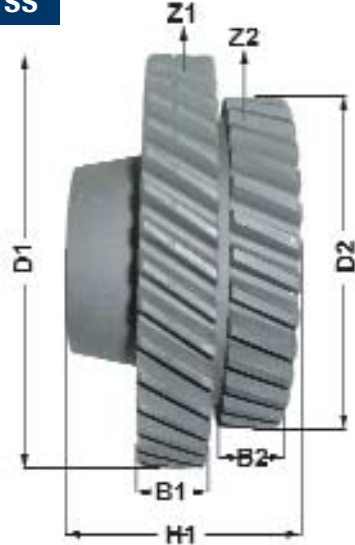
#### STRAIGHT-INCLINED TEETH

##### TYPE RS



#### INCLINED-INCLINED TEETH

##### TYPE SS



#### INCLINED-STRAIGHT TEETH

##### TYPE SR



**DETERMINATION :** To determine the type, make sure that the gear with the largest diameter is on the left-hand side

**NOTE :** Both gears have an evolving tooth type

## TECHNICAL DETAIL: GEAR CONSTRUCTION

### SPECIAL GEARS

#### ONE OF BOTH TEETH TYPES IS NO GEAR

##### RV: STRAIGHT-SPECIAL TEETH

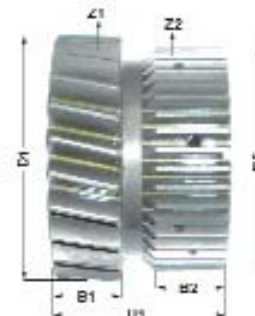
###### TYPE RR



Attention : - D1 is not always the largest diameter  
- Always measure D1 on the gear, not on the special splines.

##### RS: INCLINED-SPECIAL TEETH

###### TYPE SV



Attention : - D1 is not always the largest diameter  
- Always measure D1 on the gear, not on the special splines.

### CONICAL GEARS

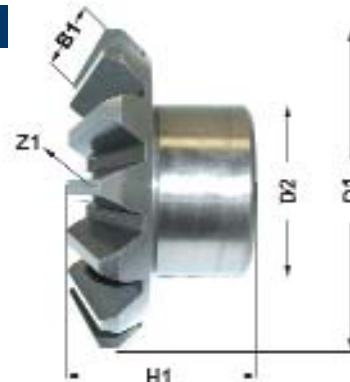
#### CONICAL TEETH

##### TYPE K



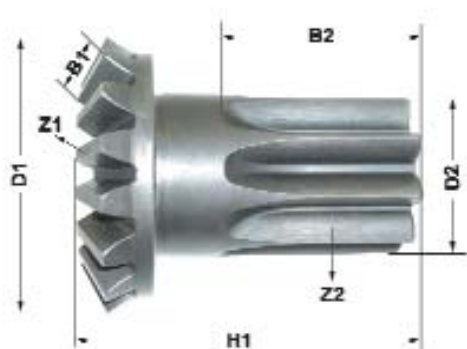
#### CONICAL TEETH WITH AXLE

##### TYPE KA



#### CONICAL TEETH AND OTHER TYPES

##### TYPE KV





## TECHNICAL DETAIL: GEAR CONSTRUCTION

### SPECIAL GEARS

#### INNER GEARS

##### I: INNER TEETH

D1 = SMALLEST INNER DIMENSION  
MEASURED ON THE TEETH TIPS  
B1 = WIDTH OF THE TEETH  
H1 = TOTAL HEIGHT



### MULTIPLE GEARS

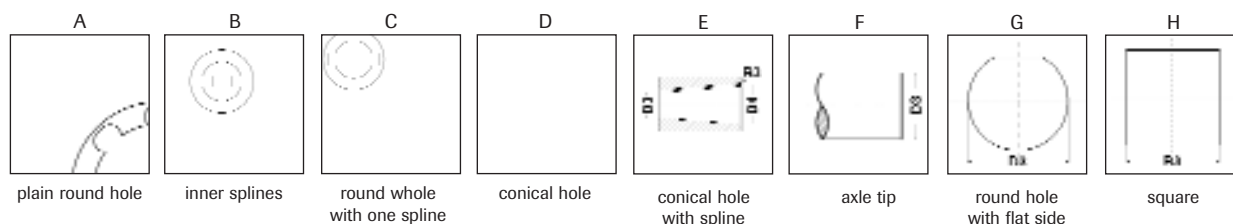
#### T: TRIPLE GEAR



#### Q: QUADRUPLE GEAR

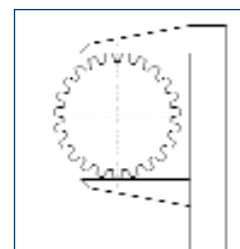


### INNER TYPES



Type S:  
Special type

- If different inner types, we determine the order as follows : B - D - C - A - E - F - G - H  
e.g. in case of two coexisting types D and A, we fill out D.
- When measuring an odd number of teeth, we place the fixed jaw of the sliding calliper on 2 teeth and slide the loose jaw until it touches the opposite tooth.



## TECHNICAL DETAIL: AXLE SHAFTS



### EXAMPLE



Company: .....

Customer code: .....

Name: .....

Fax number: .....

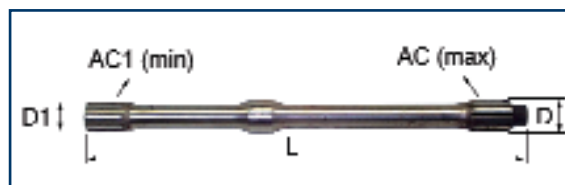
Truck make: .....

Truck type: ..... Serial nr: .....

Type CF: grooves - flange



Type CC: grooves - grooves



Type CG: grooves - gear



Type CK: grooves - cone



- 1 TY: ..... Type, see pictures
- 2 L: ..... Length, see pictures (mm)
- 3 AC: ..... Maximum number of grooves, see pictures
- 4 D: ..... Diameter, see pictures (mm)
- 5 AT-TA: ..... Number of teeth (only for type CG)
- 6 AC1: ..... Minimum number of grooves, see pictures
- 7 D1: ..... Diameter, see pictures (mm)
- 8 AT-GA: ..... Number of holes, see pictures

## USED FOR CATERPILLAR



REF	103TA9674
TY	CG
L	340
Ac	0
D	32,6
AT-TA	12
Ac1	30
D1	61,7
Ag	0

## USED FOR HYSTER



REF	103TA9456
TY	CF
L	520
Ac	25
D	152
AT-TA	0
Ac1	0
D1	40,7
Ag	12

## USED FOR AMEISE - JUNGHEINRICH



REF	106TA7982
TY	CF
L	81,5
Ac	18
D	90
AT-TA	0
Ac1	0
D1	33,5
Ag	5

## USED FOR STILL



REF	103TA9227
TY	CF
L	261
Ac	14
D	109
AT-TA	0
Ac1	0
D1	31,4
Ag	14

## USED FOR LINDE - FENWICK



REF	106TA7980
TY	CF
L	124,5
Ac	36
D	95
AT-TA	0
Ac1	0
D1	29,2
Ag	6

## USED FOR LINDE



REF	106TA7983
TY	CF
L	134
Ac	21
D	149,7
AT-TA	0
Ac1	0
D1	44
Ag	5

## USED FOR CLARK



REF	103TA9553
TY	CG
L	430
Ac	10
D	38
AT-TA	11
Ac1	0
D1	81,2
Ag	0

## USED FOR STILL



REF	103TA9614
TY	CF
L	780
Ac	29
D	153
AT-TA	0
Ac1	0
D1	37,7
Ag	14

## USED FOR AMEISE - JUNGHEINRICH



REF	106TA7981
TY	CF
L	92
Ac	8
D	92
AT-TA	0
Ac1	0
D1	39,7
Ag	4

## USED FOR LINDE



REF	106TA7983
TY	CF
L	134
Ac	21
D	149,7
AT-TA	0
Ac1	0
D1	44
Ag	5

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## SERVICE EXCHANGE REDUCTORS OR REMANUFACTURING PROGRAM



*your reductor may not let you down!*

A SPECIALIZED TEAM IS AT YOUR SERVICE FOR A QUICK AND EFFICIENT REPAIR!

**REBUILT REDUCTOR UNIT:** Repair of your faulty unit (an economical repair of the assy is done and worn-out parts are replaced to make the assy useable again) and possible test of all forklift reductors.

**REMANUFACTURING UNIT:** A large selection of remanufacturing units are in stock. The reman unit is thoroughly cleaned, inspected and renewed to 'like new' condition. Reassembling is done using new wear items. The unit is fully inspected and tested.

### OUR PROGRAM CONSISTS OF THE FOLLOWING MAKES

**BREVINI, ZF-HURTH, SPETH, JUNGHEINRICH, LANSING, STILL-SAXBY, FENWICK, BRINKMAN, PRAT, LOC, CESAB, LINDE, DAEWOO, CROWN, KORDEL, SCHABMULLER, METALROTA, C.I.M.A.**

### TOTALSOURCE® REMAN REDUCTOR STANDARDS

All wear items are replaced with components that meet or exceed OEM specifications, such as

- All seals
- All gaskets
- All bearings
- All washers
- All wear items
- The assemblies, if possible, are tested at operating temperature and with several speed intervals for:
  - right clearances
  - proper gear and pinion adjustments
  - noise levels
- Strict quality standards, including a tracking system which verifies all reman steps

### REDUCTOR WARRANTY POLICY

TotalSource® warrants each remanufactured [reductor] to be free from defects in material or in workmanship during 6 months or 1000 working hours after delivery (whichever occurs first).

The warranty is subject to the following conditions:

- the unit must have been installed by a certified technician;
- the unit must not have undergone any (intents for) repair, modification or disassembly;
- damage as a consequence of abnormal use, overloading, misuse, abuse, improper installation or accident are not covered by the warranty.

A warranty claim on a unit will only be accepted if it shows normal use, and the main housing can be re-used. If oil drained from the unit contains steel- and/or aluminium particles, it was not put to normal use and the warranty will be limited. In that case, TotalSource® will charge an extra cost.

Warranty claims must be reported in accordance with TotalSource®'s Complaint Handling Procedure (standard Form is available in the Master Catalogue, via QuickSource, website, or on demand). Only after your warranty claim has been accepted, TotalSource® will start working on your unit. TotalSource® may either repair the unit, or may replace defective components.

## REDUCTORS FOR FORKLIFTS

**BREVINI • ZF-HURTH • SPETH • JUNGHEINRICH • LANSING • STILL-SAXBY • FENWICK • PRAT • LOC • CESAB • LINDE • DAEWOO • CROWN • KORDEL • SCHABMULLER • METALROTA • BRINKMAN • C.I.M.A.**



*We have a complete range of reductors for forklifts, such as:*

**BREVINI • ZF-HURTH • SPETH  
JUNGHEINRICH • LANSING  
STILL-SAXBY • FENWICK • PRAT  
LOC • CESAB • LINDE • NEWAGE**

**NEW & REBUILT**



## TECHNICAL DETAIL: RUBBER COUPLINGS



### EXAMPLE



Company: .....

Customer code: .....

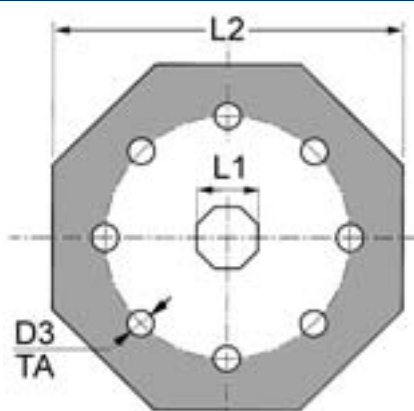
Name: .....

Fax number: .....

Truck make: .....

Truck type: ..... Serial nr.: .....

### DIMENSIONS:



L3 = total thickness

### ROUND SHAPE

- 1 L1: ..... Maximum inner diameter (mm)
- 2 L2: ..... Maximum outer diameter (mm)
- 3 L3: ..... Maximum thickness (mm)
- 4 D3: ..... Maximum diameter of holes
- 5 TA: ..... Type of thread if any
- 6 AT-GA: ..... Number of holes



If the shape of the inner and outer side, as well as in height is a random shape, take the maximum distance for L1, L2 & L3.

### USED FOR ALLIS CHALMERS

REF	106TA7791
L1	36
L2	85
L3	27,5
D3	8
TA	-
AT-GA	6



### USED FOR CATERPILLAR

REF	106TA7792
L1	36
L2	85
L3	27,5
D3	8
TA	-
AT-GA	6



### USED FOR CESAB

REF	103TA8623
L1	46
L2	105
L3	32
D3	10
TA	-
AT-GA	6



### USED FOR CLARK

REF	103TA8616
L1	45
L2	126
L3	21
D3	14
TA	-
AT-GA	6



### USED FOR FENWICK&PEG

REF	103TA8605
L1	31
L2	82
L3	28
D3	11
TA	-
AT-GA	6



### USED FOR FENWICK&PEG

REF	103TA8611
L1	35
L2	106
L3	31,5
D3	12,5
TA	-
AT-GA	6



### USED FOR FENWICK&PEG

REF	103TA8606
L1	50
L2	127
L3	46
D3	16
TA	-
AT-GA	6



### USED FOR HAMECH

REF	106TA7793
L1	45
L2	125
L3	43
D3	12
TA	-
AT-GA	6



### USED FOR HYSTER

REF	103TA8617
L1	45
L2	125
L3	43
D3	12
TA	-
AT-GA	6



### USED FOR IRION

REF	106TA7789
L1	61
L2	155
L3	30
D3	16
TA	-
AT-GA	6



*This is only a small selection of what we can offer. Call our sales department for more details.*

## USED FOR JUNGHEINRICH

REF	106TA7808
L1	45
L2	122
L3	39
D3	0
TA	M8
AT-GA	6



## USED FOR JUNGHEINRICH

REF	106TA7810
L1	49
L2	119
L3	25,5
D3	0
TA	M10
AT-GA	8



## USED FOR JUNGHEINRICH

REF	106TA7802
L1	73
L2	134
L3	18,5
D3	14
TA	-
AT-GA	6



## USED FOR KALMAR LMV

REF	106TA7790
L1	61
L2	155
L3	30
D3	16
TA	-
AT-GA	6



## USED FOR KOMATSU

REF	103TA8626
L1	29
L2	95
L3	29,5
D3	8,5
TA	-
AT-GA	6



## USED FOR KOMATSU

REF	106TA7795
L1	35
L2	106
L3	31,5
D3	12,5
TA	-
AT-GA	6



## USED FOR KOMATSU

REF	106TA7794
L1	59
L2	199
L3	34,8
D3	16,5
TA	-
AT-GA	6



## USED FOR LINDE

REF	106TA7804
L1	31
L2	82
L3	28
D3	11
TA	-
AT-GA	6



## USED FOR LINDE

REF	106TA7797
L1	35
L2	106
L3	31,5
D3	12,5
TA	-
AT-GA	6



## USED FOR LINDE

REF	103TA8625
L1	39,5
L2	93
L3	24
D3	10
TA	-
AT-GA	6



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### USED FOR LINDE

REF	106TA7806
L1	50
L2	127
L3	46
D3	16
TA	-
AT-GA	6



### USED FOR LINDE

REF	103TA8613
L1	61
L2	150
L3	30,5
D3	16
TA	-
AT-GA	6



### USED FOR LINDE

REF	103TA8622
L1	61
L2	155
L3	30
D3	16
TA	-
AT-GA	6



### USED FOR LINDE

REF	103TA8620
L1	66
L2	164
L3	19,8
D3	14
TA	-
AT-GA	6



### USED FOR LINDE

REF	106TA7803
L1	73
L2	134
L3	18,5
D3	14
TA	-
AT-GA	6



### USED FOR MANITOU

REF	106TA7805
L1	50
L2	127
L3	46
D3	16
TA	-
AT-GA	6



### USED FOR MORA

REF	106TA7800
L1	61
L2	150
L3	30,5
D3	16
TA	-
AT-GA	6



### USED FOR SALEV

REF	106TA7799
L1	61
L2	150
L3	30,5
D3	16
TA	-
AT-GA	6



### USED FOR STILL

REF	103TA8628
L1	12
L2	65
L3	19
D3	10
TA	-
AT-GA	4



### USED FOR STILL

REF	106TA7798
L1	61
L2	150
L3	30,5
D3	16
TA	-
AT-GA	6



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## USED FOR STILL

REF	106TA7801
L1	73
L2	134
L3	18,5
D3	14
TA	-
AT-GA	6



## USED FOR TCM

REF	103TA8624
L1	35
L2	99
L3	37,5
D3	0
TA	M6
AT-GA	6



## USED FOR TCM

REF	106TA7796
L1	35
L2	106
L3	31,5
D3	12,5
TA	-
AT-GA	6



## USED FOR TCM

REF	103TA8627
L1	36
L2	85
L3	27,5
D3	8
TA	-
AT-GA	6



## USED FOR TCM

REF	103TA8614
L1	55
L2	143
L3	56,5
D3	16,5
TA	-
AT-GA	6



## USED FOR TCM

REF	103TA8621
L1	57
L2	144
L3	57
D3	17
TA	-
AT-GA	6



## USED FOR YALE

REF	106TA7807
L1	45
L2	122
L3	39
D3	0
TA	M8
AT-GA	6



## USED FOR YALE

REF	106TA7809
L1	49
L2	119
L3	25,5
D3	0
TA	M10
AT-GA	8



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## TECHNICAL DETAIL: UNIVERSAL JOINT (CROSS)



### EXAMPLE



Company: .....  
 Customer code: .....  
 Name: .....  
 Fax number: .....  
 Truck make: .....  
 Truck type: ..... Serial nr.: .....

. TY..... Type of universal joint (see types on next page)  
 ., . L1 ..... Length (see figure)  
 ., . L2..... Length between edge of turned sections (see figure)  
 ., . C..... Centre distance  
 ., . D1 ..... Diameter (see figure)  
 ., . B..... Width of the key  
 ., . D2 ..... Diameter (see figure)  
 .... TA..... Thread type  
 ., . PM..... Step (millimetre)  
 ., . PI ..... Step (inch)  
 .. RH/LH..... RH or LH thread  
 . SMP ..... Grease nipple:

G = None  
 V = Optional  
 A = Present

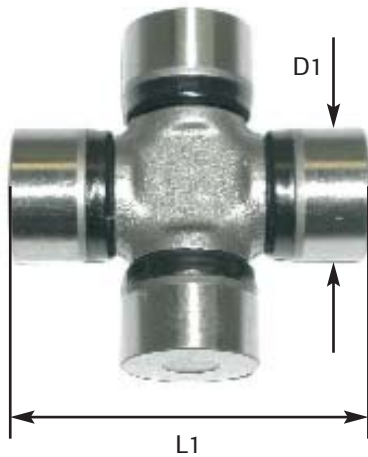
NEW IN  
PROGRAM

## TECHNICAL DETAIL: UNIVERSAL JOINT (CROSS)

### TYPES & DIMENSIONS

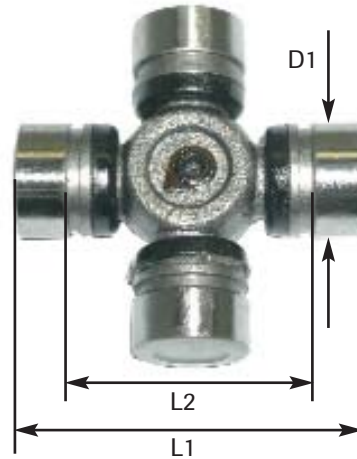
#### TYPE A

NO KEY SPLINE  
NO CIRCLIPS GROOVE



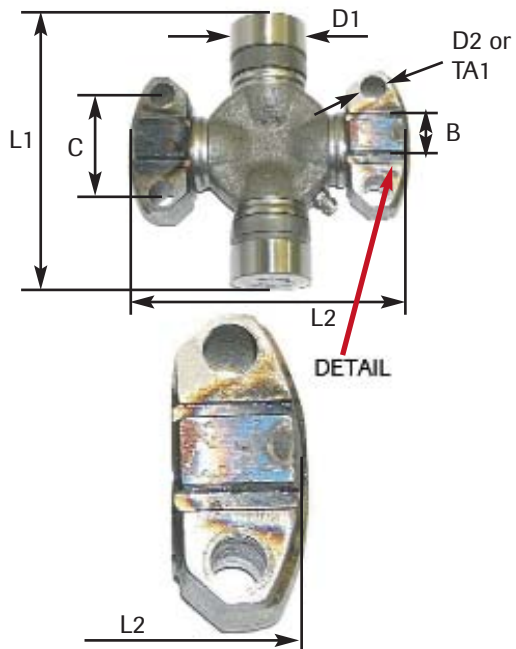
#### TYPE B

NO KEY SPLINE  
WITH CIRCLIPS GROOVE



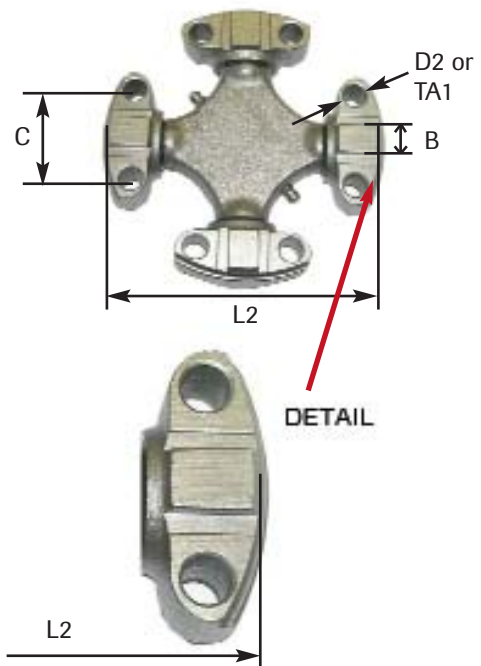
#### TYPE C

WITH 2 KEY SPLINES



#### TYPE D

WITH 4 KEY SPLINES



FAX FORM: UNIVERSAL JOINT (CROSS)

## EXAMPLES: UNIVERSAL JOINT (CROSS)

USED ON CATERPILLAR



USED ON HYSTER



USED ON HYSTER



USED ON MITSUBISHI



USED ON TCM



USED ON TOYOTA



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call our sales department*





## DRIVE SHAFTS



**TOTALSOURCE® OFFERS A WIDE RANGE OF DRIVE SHAFTS.**

*Availability based on dimensions and makes.  
Please supply full truck details. Contact our sales department for more info.*

**Different applications:** Drive line prop shafts, Pump drive shafts, Cooling drive shafts



## NOTES

# NOTES

770

