



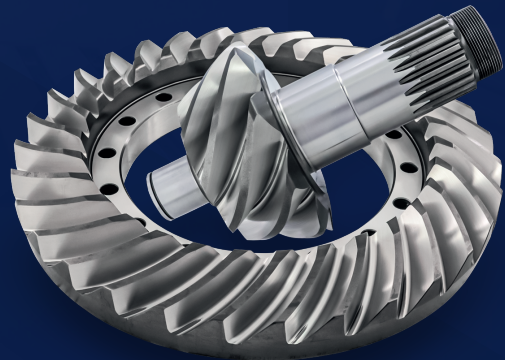
KACMAZLAR®
GEAR INDUSTRY

AYNA MAHRUTİ

PINION & CROWN

ÜRÜN KATALOĞU / WHEEL CATALOGUE

2022



SCANIA
MAN / MERCEDES
VOLVO / RENAULT

www.kacmazlar.com

01 | BAKIM / MAINTENANCE

1-1 YAĞ SEÇİMİ - OIL SELECTION

Yağ seçimi Ayna-Mahrutinin iyi çalışmasına doğrudan etkisi vardır. Uygun olmayan yağ Ayna-Mahruti ve diğer bütün bileşenlerinin ömrünü de ciddi oranda azaltmaktadır. Lütfen bakımı yapılan aracın kılavuzunda önerilen yağları veya API GL5 (80W - 90 / 85W - 140) bir yağ tercih ediniz.

Oil selection has a direct effect on the functioning properly of the Crown & Pinion Set. Unsuitable oil also significantly reduces the life of the Crown & Pinion and all its other components. Please, choose any of the oils as recommended in the manual of the vehicle that is being maintained, or a lube in class of API GL5. (80W - 90 / 85W - 140)

1-2 YAĞ SEVİYESİ - OIL LEVEL

Yetersiz yağlama Ayna-Mahruti ve bileşenlerinin ömrüne ciddi oranda olumsuz etkisi vardır. Yağ seviyesi yeterli seviyede değilse derhal aracın kılavuzunda önerilen yağlardan biri ile ya da orijinali ile aynı türde olan viskoziteye sahip muadil bir yağ ile uygun seviyeye kadar doldurun. Kesinlikle türü ve viskozitesi farklı olan bir yağ ile karıştırmayınız.

Insufficient lubrication has a serious negative effect on the life of the Crown & Pinion Set and its other components. If the oil level is not adequate, then fill immediately with one of the oils recommended in the vehicle's manual, or with an equivalent oil that in the same type with the original lube and having the same viscosity with it, up to the appropriate level. Please, never do mix it with an oil that is having a different type or viscosity!

1-3 YAĞ DEĞİŞİMİ - OIL CHANGE

Zaman içinde yağ kirlenip bozulur ve yağlama özelliğini kaybeder. Özelliğini kaybetmiş bir yağlama ile çalışma sıcaklığı artar. Dolayısıyla Ayna-Mahruti ve bileşenleri hızla bozulur.

In the course of time, by getting dirty, the oil degrades and loses its lubricating property. With a lubrication that has already lost its properties, the operating temperature increases. Consequently, the Crown-Pinion Gear Set and its components damage quickly.

1-4 BİLEŞENLER - COMPONENTS

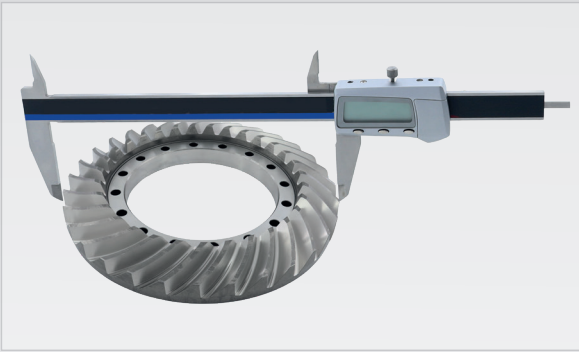
Uygun ve uzun ömürlü bir çalışma için bütün bileşenlerin dikkatlice gözden geçirilmesi ve hasarlı olan bileşenlerin değiştirilmesi gerekir. Rulman, somun, cıvata, pul, conta ve burç gibi düşük maliyetli bileşenlerin her bakımda değiştirilmesini tavsiye ederiz.

For proper operation and long-lasting lifetime, all components must be carefully inspected and the components which has gotten damaged be replaced. We recommend replacing low-cost components such as bearings, nuts, bolts, washers, gaskets and bushings, at every routine maintenance time.

2 | DIŞLI BOŞLUĞU / GEAR BACKLASH

Montaj işleminden önce uygun dişli boşluğu tespit etmeniz gerekir. Uygun dişli boşluğunu aşağıdaki talimatlara uyarak tablodan bulabilirsiniz.

Prior to assembling process, you must detect the appropriate gear backlash. You can ascertain the appropriate gear backlash value from the chart in below, by following the instructions.



Aynanın dış çapını bir kumpas ile ölçün.(D)

Measure the outside diameter of the Crown Wheel with a caliper (D)

Aynanın diş sayısını belirleyin.(Z)

Count the teeth number of the Crown Wheel (Z)

D ve Z değerlerini aşağıdaki formüle uygulayın. $M = D : Z$ Module = D : Z

Yukarıda bulduğunuz M değerini kullanarak tablodan önerilen dişli boşluğunu belirleyin.

Using the M value you calculated above, determine the recommended gear backlash from the adjacent table.

MODÜL-MODULE M
5,08-6,35
6,35-7,26
7,26-8,47
8,47-10,16
10,16-12,70
12,70-14,51
14,51-16,93
16,93-20,32
20,32-25,40

Dişli Boşluğu-Gear Backlash		
min	(mm)	max
0,129		0,161
0,161		0,184
0,184		0,215
0,215		0,258
0,258		0,322
0,322		0,368
0,368		0,430
0,430		0,516
0,516		0,645

Çapsal Adım-Diametral Pitch P
4,00-5,00
3,50-4,00
3,00-3,50
2,50-3,00
2,00-2,50
1,75-2,00
1,50-1,75
1,25-1,50
1,00-1,25

Dişli Boşluğu-Gear Backlash		
min	(inc)	max
0,005		0,006
0,006		0,007
0,007		0,008
0,008		0,010
0,010		0,013
0,013		0,014
0,014		0,017
0,017		0,020
0,020		0,025

Örnek (Sample):

D = 435 mm

Z = 40

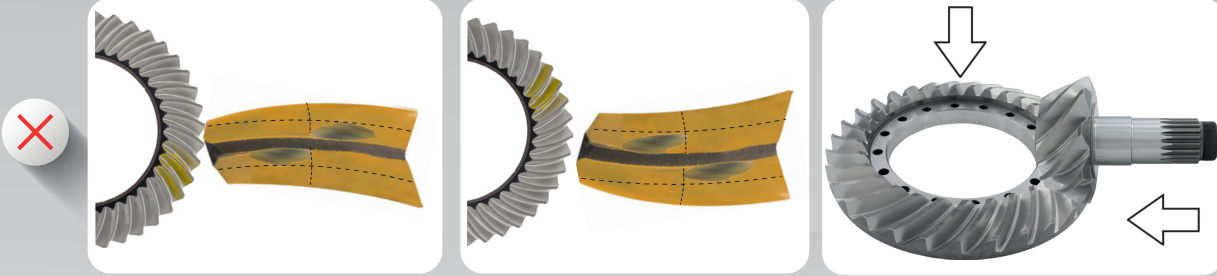
M = 435:40 = 10,87

03 | BASMA İZİ AYAR - GEAR TOOTH CONTACT PATTERN ADJUSTMENT

Ayna-Mahruti dişlisinin maksimum düzeyde sessiz ve dayanıklı olabilmesi için basma izinin uygun olması son derece önemlidir. Basma izi, ayar şimlerini ekleyerek ya da çıkararak ayarlanabilir. Aşağıdaki talimatı uygulayarak basma izi uygun pozisyona getirebilirsiniz
For being able to of the Crown & Pinion Gear Set silent and durable at the maximum level, it is extremely important that the gear tooth contact patch is appropriate. The contact pattern can be adjusted by adding or removing of the shims. You can bring the contact pattern to the proper position by following the instruction below

DİŞLİ BOŞLUĞU (Gear Backlash)
MAHRUTİ MESAFESİ (Pinion Distance)
BASMA İZİ (Contact Pattern)
SAĞ Ayna Dişlisi
 (RIGHT CROWN WHEEL)

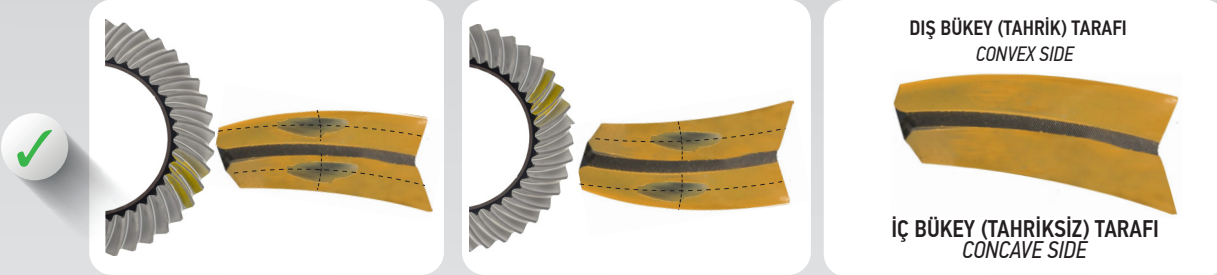
: **DOĞRU (CORRECT)**
 : **YANLIŞ (WRONG)**
 : **YANLIŞ (WRONG)**
SOL Ayna Dişlisi
 (LEFT CROWN WHEEL)



Basma izi dişin üst bölümünde yer alır. Gürültü ve erken aşınmaya sebep olur.
The contact pattern takes place in the upper section of the tooth. It causes noise and premature wear.

DİŞLİ BOŞLUĞU (Gear Backlash)
MAHRUTİ MESAFESİ (Pinion Distance)
BASMA İZİ (Contact Pattern)
SAĞ Ayna Dişlisi
 (RIGHT CROWN WHEEL)

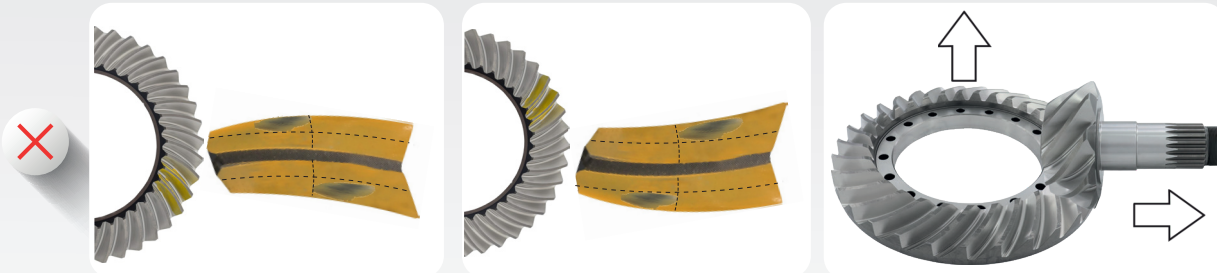
: **DOĞRU (CORRECT)**
 : **DOĞRU (CORRECT)**
 : **DOĞRU (CORRECT)**
SOL Ayna Dişlisi
 (LEFT CROWN WHEEL)



Basma izi dişin yüksekliğine ve yanak genişliğine ortalanır ve dış bükey (tahrik) tarafından biraz daha uca doğru ayarlanır.
Contact pattern is centered according to height of the teeth and the face width, and also it adjust towards to the tip little bit more that at the convex (drive) side.

DİŞLİ BOŞLUĞU (Gear Backlash)
MAHRUTİ MESAFESİ (Pinion Distance)
BASMA İZİ (Contact Pattern)
SAĞ Ayna Dişlisi
 (RIGHT CROWN WHEEL)

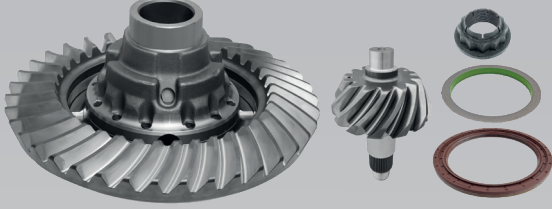
: **DOĞRU (CORRECT)**
 : **YANLIŞ (WRONG)**
 : **YANLIŞ (WRONG)**
(LEFT CROWN WHEEL)
SOL Ayna Dişlisi



Basma izi dişin alt bölümünde yer alır. Gürültü ve erken aşınmaya sebep olur.
The contact pattern is takes place in the bottom section of the tooth. It causes noise and premature wear.

AYNA MAHRUTİ KOMPLE - PINION / CROWN WHEEL COMPLETE (11X37)

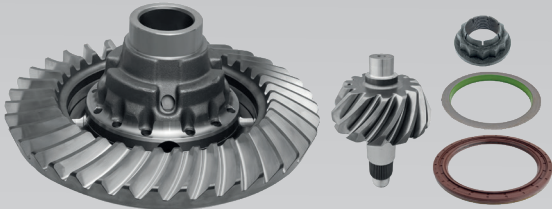
K04.01680 - 21597141 - 7421597141



RS / 1344 C - Meritor E.903.M
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ KOMPLE - PINION / CROWN WHEEL COMPLETE (12X37)

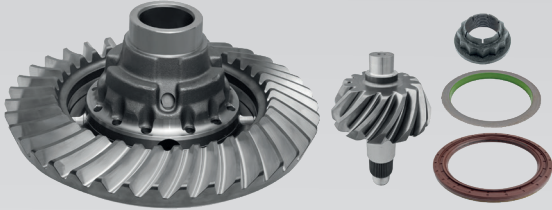
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RS / 1344 C - Meritor E.902.M
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AYNA MAHRUTİ KOMPLE - PINION / CROWN WHEEL COMPLETE (13X37)

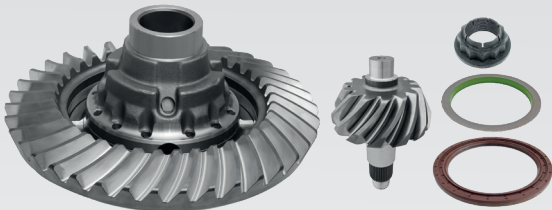
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RS / 1344 C - Meritor E.901.M
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ KOMPLE - PINION / CROWN WHEEL COMPLETE (14X37)

K04.01564 - 21597138 - 7421597138



RS / 1344 C - Meritor E.900.M
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (10X31) (R:3,10)

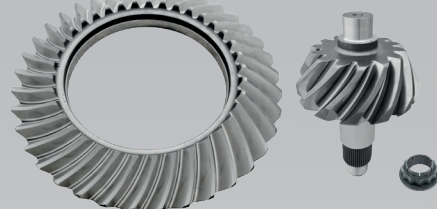
K04.01670 - 1524151



EV / 90 - 91, RS1356SV

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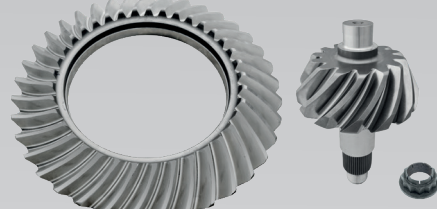
K04.01679 - 21583083 - 7421583083



RS / 1344 C
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ TAKIMI - PINION / CROWN WHEEL KIT (12X37)

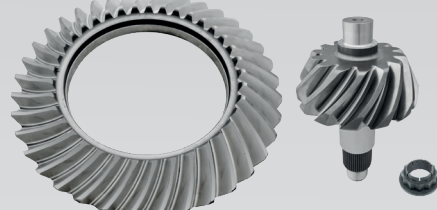
K04.01544 - 21583082 - 7421583082



RS / 1344 C
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ TAKIMI - PINION / CROWN WHEEL KIT (13X37)

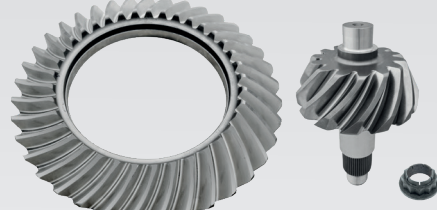
K04.01543 - 21583081 - 7421583081



RS / 1344 C
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ TAKIMI - PINION / CROWN WHEEL KIT (14X37)

K04.01542 - 21583080 - 7421583080



RS / 1344 C
VOLVO-RENAULT-MERITOR-IVECO-MERITOR(EUROPE)

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (9X31) (R:3,44)

K04.01674 - 1524252



EV / 90 - 91, RS1356SV

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (12X25) (R:7,21)

K04.01671 - 1524911 - 7401524911



RT / 2610HV - 3210HV , RTH / 2610B

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (12X25) (R:7,21)

K04.01676 - 1524943 - 7401524943



RS / 1352HV - 1370HV

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (16X25) (R:5,41)

K04.01669 - 1524910 - 7401524910



RS / 1365HV , RT / 2610HV - 3210HV , RTH / 2610B

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (16X25) (R:5,41)

K04.01673 - 1524942 - 7401524942



RS / 1352HV - 1370HV

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (19X25) (R:4,55)

K04.01672 - 1524909 - 7401524909



RS / 1365HV , RT / 2610HV - 3210HV , RTH / 2610B

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (19X25) (R:4,55)

K04.01675 - 1524941 - 7401524941



RS / 1352HV - 1370HV

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (21X25) (R:4,12)

K04.01677 - 1524908 - 7401524908



RS / 1365HV , RT / 2610HV - 3210HV , RTH / 2610B

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT (21X25) (R:4,12)

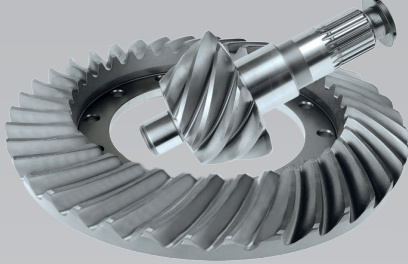
K04.01668 - 1524940 - 7401524940



RS / 1352HV - 1370HV

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(11x36)/(R:3.27)

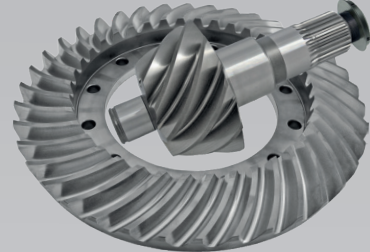
K07.03834 - 2111309 - 1912152 - 1478668



R780 - R782

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(10x38)/(R:3.80)

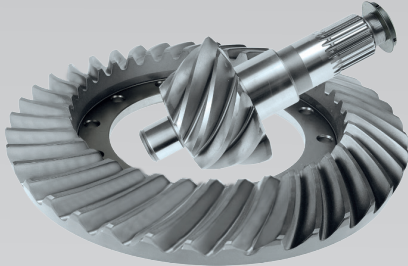
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R780 - R782

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(10x34)/(R:3.40)

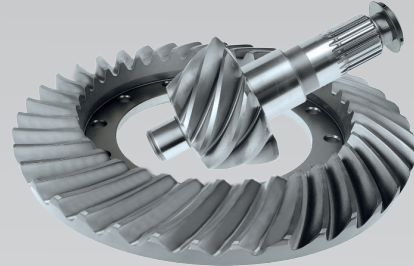
K07.03841 - 1340789



R780

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(13x38)/(R:2.92)

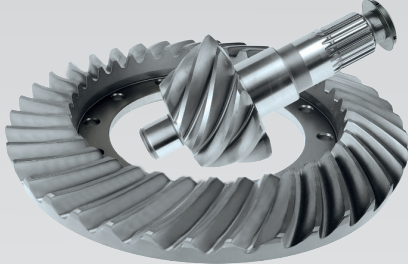
K07.03842 - 2135155 - 2061381 - 1308301



R780 - R782

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(14x38)/(R:2.71)

K07.03860 - 2445592 - 2004496 - 1522045



R780 - R782

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(12x37)/(R:3.08)

K07.03835 - 1895778 - 1327233



R780 - R782

AYNA MAHRUTİ TAKIMI - PINION/CROWN WHEEL KIT(14x43)/(R:3.07)

K07.03838 - 1948859



R885

ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI
REAR PINION / CROWN WHEEL KIT
(13X37) (R:2,846)

K26.00441 - 001 350 0939

HL 6/1 DC(LC) , HL 6/3 DC(L,S)

HO 6/1 DCL(S) , HO 6/2 DCL(S) ,HO 6/DCL ,

HO 6/4 DCL , HO 6/5 DCL , HO 6/6 DCL

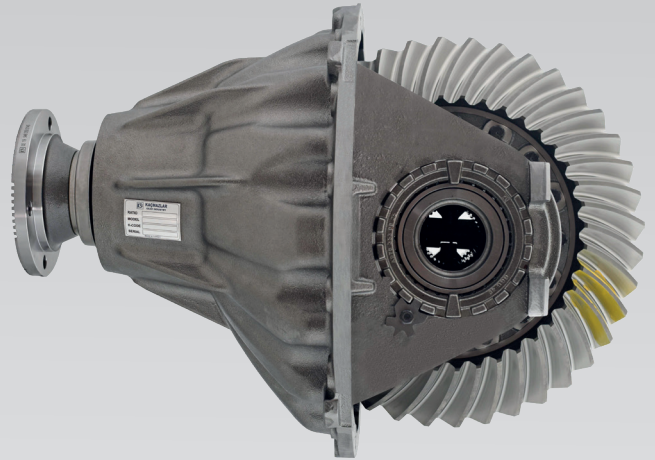


DİFERANSİYEL BUATI KOMPLE
DIFFERANTIAL COMPLETE
(13X37) (R:2,846)

K26.00751 - QPM350000402 (TRAVEGO)

HO 6/1 DCL(S) , HO 6/2 DCL(S)

HO 6/DCL , HO 6/4 DCLHO 6/5 DCL , HO 6/6 DCL

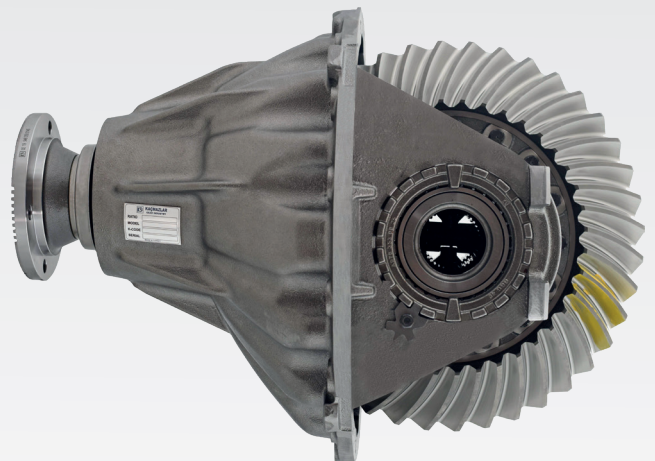


DİFERANSİYEL BUATI KOMPLE
DIFFERANTIAL COMPLETE
(13X37) (R:2,846)

K26.00752 - QPM350000220

QPM350001334 - (AXOR)

HL 6/1 DC(LC) , HL 6/3 DC(L,S)



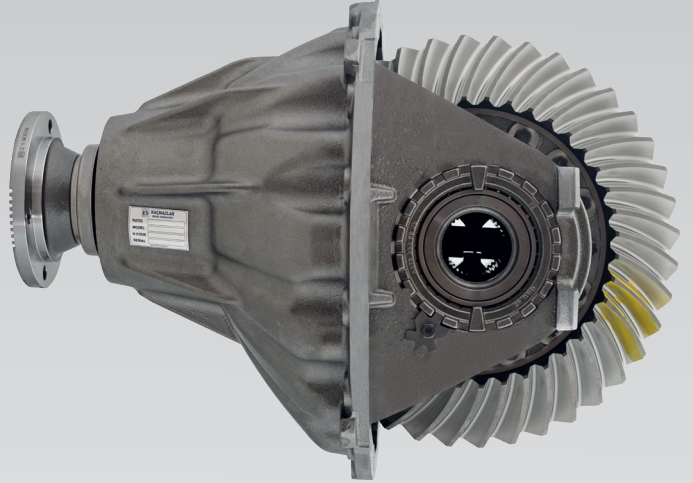
ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI
REAR PINION / CROWN WHEEL KIT
(13X40) (R:3,076)

K26.00442 - 001 350 0839
HL 6/1 DC(LC)
HL 6/3 DC



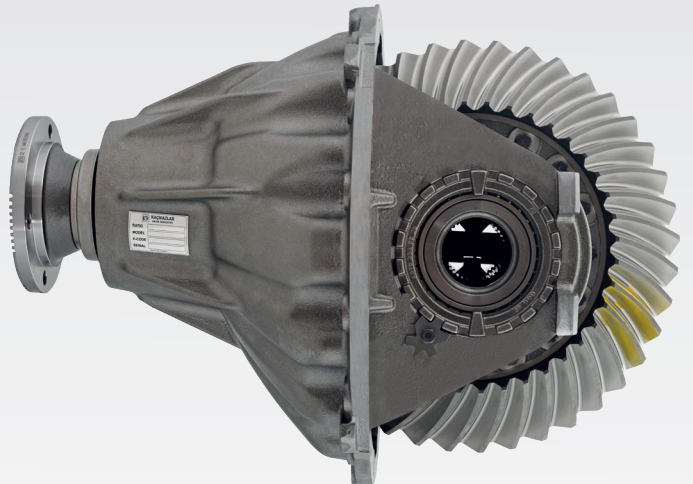
DİFERANSİYEL BUATI KOMPLE
DIFFERANTIAL COMPLETE
(13X40 / R:3,076)

K26.00703 - QPM350000309
000 350 4303 (AXOR)
HL 6/1 DC(LC)
HL 6/3 DC



DİFERANSİYEL BUATI KOMPLE
DIFFERANTIAL COMPLETE
(13X40 / R:3,076)

K26.90703 - QPM350000309
000 350 4303 (AXOR)
HL 6/1 DC(LC)
HL 6/3 DC



ÇAMUR TAKVİYELİ - WITH LOCKING

REAR PINION / CROWN WHEEL KIT (12X43) (R:3,584)

K26.00740 (TRAVEGO)

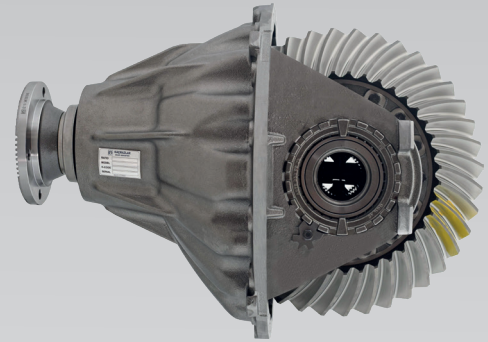
HO 6/1 DCL(S) , HO 6/2 DCL(S) ,HO 6/DCL , HO 6/4 DCL
HO 6/5 DCL , HO 6/6 DCL



DIFFERENTIAL COMPLETE (12X43) (R:3,584)

K26.00747 - QPM350000403 - QPM350000242

HO 6/1 DCL(S) , HO 6/2 DCL(S) ,HO 6/DCL , HO 6/4 DCL
HO 6/5 DCL , HO 6/6 DCL



REAR PINION / CROWN WHEEL KIT (13X40) (R:3,076)

K26.00729 (AXOR) (AROCS)

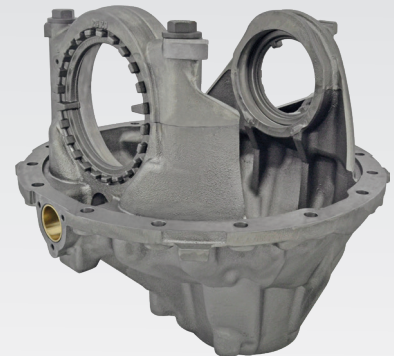
R440-13,0/C22.5



DIFF. HOUSING (EMPTY)

K26.00696 - 948 350 0303 - 948 350 0203
948 350 0103

HL 6/1 DC(LC) , HL 6/3 DC
HO 6/1 DCL(S) , HO 6/2 DCL(S) ,HO 6/DCL , HO 6/4 DCL
HO 6/5 DCL , HO 6/6 DCL



ÖN DİFERANSİYEL AYNA MAHRUTİ TAKIMI

FRONT PINION / CROWN WHEEL KIT

(21X28) (R:1,333)

K26.00415 - 942 350 2739 - 81.35199-6615

MB:HD 7/055-056 , HD 7/56 MAN:HPD 1372E ,HPD 1382/1682



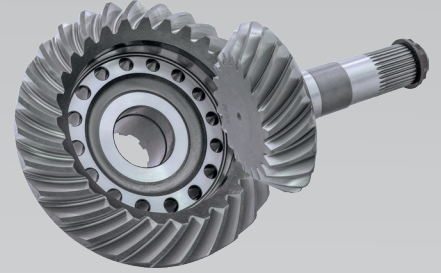
ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI

REAR PINION / CROWN WHEEL KIT

(21X28) (R:1,333)

K26.00416 - 942 350 2239 - 81.35199-6660

MB:HL 7/055 , R300P MAN:HP 1342E , HP 1352/1652



ÖN DİFERANSİYEL AYNA MAHRUTİ TAKIMI

FRONT PINION / CROWN WHEEL KIT

(24X29)(R:1,208)

K26.00413 - 942 350 2539 - 81.35199-6605

MB:HD 7/055-056 , HD 7/56 MAN:HPD 1372E ,HPD 1382/1682



ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI

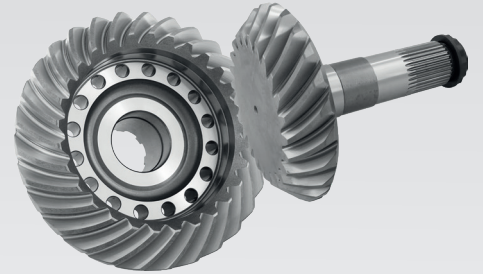
REAR PINION / CROWN WHEEL KIT

(24X29)(R:1,208)

K26.00609 - 942 350 3039 - 942 350 2139

81.35199-6671 - 81.35199-6659

MB:HL 7/055 , R300P MAN:HP 1342E , HP 1352/1652



ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI

REAR PINION / CROWN WHEEL KIT

(24X26)(R:1,083)

K26.00414 - 942 350 2039 - 81.35199-6658

MB:HL 7/055 , R300P MAN:HP 1342E , HP 1352/1652



ÖN DİFERANSİYEL AYNA MAHRUTİ TAKIMI

FRONT PINION / CROWN WHEEL KIT
(21X28) (R:1,333)

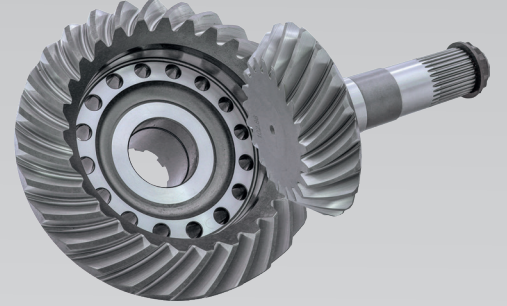
K26.00520 - 944 350 2539 - 81.35199-6638
MB:HD 7/55-56 , HD 7/56 MAN:HPD 1353



ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI

REAR PINION / CROWN WHEEL KIT
(21X28) (R:1,333)

K26.00436 - 944 350 3939 - 944 350 3539
81.35199-6655
MB:HL 7/55-56 MAN:HP 0728E , HP 0928 , HP 1333



ÖN DİFERANSİYEL AYNA MAHRUTİ TAKIMI

FRONT PINION / CROWN WHEEL KIT
(24X29)(R:1,208)

K26.00521 - 944 350 2439 - 81.35199-6613

MB:HD 7/55-56 , HD 7/56 MAN:HPD 1353

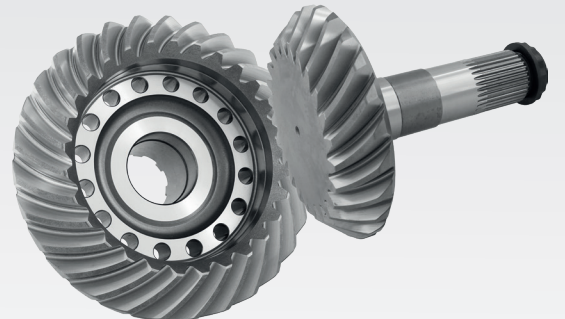


ARKA DİFERANSİYEL AYNA MAHRUTİ TAKIMI

REAR PINION / CROWN WHEEL KIT
(24X29)(R:1,208)

K26.00528 - 944 350 4039 - 944 350 3639
81.35199-6654

MB:HL 7/55-56 , HL7/233 MAN:HP 0728/0928 , HP1333





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