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The Installation Case Portfolio of Centralized Lubrication System

The Installation Case

0

of Vehicle CLS

CLS for Yutong Bus

Manufacturer: Yutong

Type of Distributor:single-row single-line Number:2

Installation Date: 2017.10.13



- 1 The location of pump
- 2The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness (Note: the order is from left to right, top to bottom)

Vehicle:Yutong bus Type of Lubrication pump: AR60H Lube points:8









CLS for Zhongtong Bus

Manufacturer:Zhongtong Type of Distributor:single-row single-line Number:2 Installation Date: 2018.8



- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of lube points

Vehicle: Zhongtong LCK6109052 Type of Lubrication pump: AR60 Lube points: 15









CLS for Yutong Bus

Manufacturer: Yutong Type of Distributor:single-row single-line Number:2 Installation Date: 2018.6



- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor 4 Vehicle Information

Vehicle: Yutong bus Type of Lubrication pump: AR60H Lube points:8









CLS for Zhongtong Bus

Manufacturer:Zhongtong Type of Distributor:single-row single-line Number:1 Installation Date: 2017.10.13



- 1) The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness

Vehicle: Zhongtong LCK6109052 Type of Lubrication pump: AR60H Lube points: 8









01 02

CLS for Gold Dragon Bus

Manufacturer:Gold Dragon Type of Distributor:single-row single-line Number:2



The location of pumpThe location of distributor, tube and wire harness

Vehicle:Gold Dragon Bus Type of Lubrication pump:AR60 Lube points:8





CLS for Gold Dragon Bus

Manufacturer: Gold Dragon
Type of Distributor: single-row single-line
Number: 2

Installation Date: 2017.8



- 1)The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness



Vehicle:King Long 6125









CLS for CRRC

Manufacturer:CRRC

Type of Distributor:single-row single-line

Number:2

Installation Date: 2018.9



- ①The location of pump
- ②The location of monitor
- ③ The location of distributor
- 4 The location of tube and wire harness

Vehicle:Zhongche Bus Type of Lubrication pump :AR60H Lube points :12









CLS for Gold Dragon Bus

Manufacturer: Gold Dragon

Type of Distributor:single-row single-line

Number:2

Installation Date: 2017.8



- 1) The location of pump
- 2The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness

Vehicle:King Long 6106
Type of Lubrication pump:AR60H
Lube points:20







CLS for BYD Bus

Manufacturer:BYD
Type of Distributor:single-row single-line
Number:2
Installation Date:2018.8



- ①The location of pump
- ②The location of monitor
- 3 The location of distributor
- 4 The location of lube points

Vehicle:BYD K8 Type of Lubrication pump:ALP50 Lube points:12



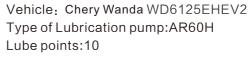






CLS for Chery Wanda Bus

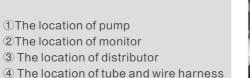
Manufacturer: Chery Wanda
Type of Distributor: single-row single-line
Number: 2
Installation Date: 2018.8















CLS for BYD Bus

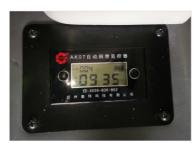
Manufacturer:BYD
Type of Distributor:single-row single-line
Number:2
Installation Date:2018.8



- ①The location of pump
- ②The location of monitor
- 3 The location of distributor
- 4 The location of lube points

Vehicle:BYD GZ6100LGEV5
Type of Lubrication pump:ALP50
Lube points:12







CLS for Ankai Bus

Manufacturer:Ankai
Type of Distributor:single-row single-line
Number:2
Installation Date:2017.8



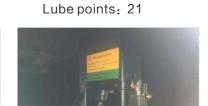
①The location of pump ② Vehicle Information Vehicle:Ankai Bus Type of Lubrication pump:ALP502H Lube points:20



CLS of Malaysia Kuala Lumpur Bus

Type of Distributor:single-row single-line Vehicle: Bus Number:2 Type of Lubric Vehicle: Bus

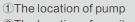
Installation Date:2018.6



Type of Lubrication pump: AR60







- ②The location of monitor
- ③ The location of tube and wire harness
- 4 The location of lube points





The Installation Case of CLS and WGCS in Wind Turbines



WGCS of Shanghai Electric(1)

Manufacturer:Shanghai Electric Wind turbine: 2.0MW Installation Date: 2016.3

Lubrication parts: Pitch Lubrication pump: ALP702w Suction & Discharge Device: 30



- 1 The location of Lubrication pump
- 2 The location of Control box
- 3 Before pic
- 4 After pic







WGCS of Shanghai Electric(2)

Manufacturer:Shanghai Electric Wind turbine: 2.0MW Installation Date: 2016.3.15

Lubrication parts: Main bearing Lubrication pump: ALP702w Suction & Discharge Device: 30



- 1 The location of Lubrication pump
- 2 The location of Suction&Discharge Device
- 3 The location of Collection bottle
- 4 The location of distributor









CLS and WGCS of Shanghai Electric(3)

Wind turbine: 1.25MW Installation Date: 2016.9

Manufacturer: Shanghai Electric Lubrication parts: Pitch and Main bearing Type of Distributor: Single-line Distributor Lubrication pump: ALP1224/ALP1024/ALP702w





- 1 The location of pump
- ② The location of distributor
- 3 Main bearing
- ④ The location of WGCS
- ⑤ The location of lube points
- 6 Suction & Discharge Device
- 7 Iubrication pump station 8 Suction & Discharge Device















WGCS of Gamesa(1)

Manufacturer:Gamesa Wind turbine:G90 Installation Date: 2017.3 Lubrication parts: Pitch Lubrication pump: ALP702w Suction & Discharge Device: 27



- 1) The location of Lubrication pump
- 2 The location of Control box
- 3 Before pic
- 4 After pic









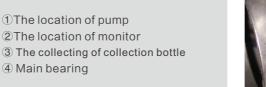
WGCS of SUZLON

Manufacturer:SUZLON Wind turbine:1.25MW Installation Date: 2017.3 Lubrication parts: Main bearing Lubrication pump: ALP702w Suction & Discharge Device: 27













WGCS of Gamesa(2)

Manufacturer:Gamesa Wind turbine:2.0MW Installation Date:2017.3 Lubrication parts: Pitch Lubrication pump: ALP1228 Suction & Discharge Device: 27



- ①The location of pump
- ②The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness







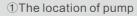


CLS and WGCS of Mingyang electric wind power

Manufacturer:Mingyang electric Wind turbine:MY1.5se Installation Date:2016.10

Lubrication parts: Pitch Lubrication pump: ALP702w Suction & Discharge Device:21





- ②The location of monitor
- 3 The location of distributor
- 4 The location of Suction& Discharge Device









WGCS of CSIC

Manufacturer: CSIC Wind turbine: 2.0MW Installation Date: 2016.10 Lubrication parts: Pitch and Main bearing Lubrication pump: ALP702w Suction & Discharge Device: 21



3The location of Suction&Discharge Device

(4) Waste grease collected by suction and drain

1) The location of Lubrication pump

2 The location of monitor









CLS of The united power

Manufacturer: The united power Wind turbine: 1.5MW

Type of Distributor: Single-line Distributor

Installation Date: 2018.6.8

Lubrication parts:blade bearing & gear Lubrication pump:ALP1228 Lube points:24





- 1) The location of pump 2The location of distributor
- 3 The location of tube and wire harness
- 4 Lube points









CLS and WGCS of Goldwind

Manufacturer: Goldwind Wind turbine:1.5MW Suction & Discharge Device: 12 Installation Date: 2018.7.16



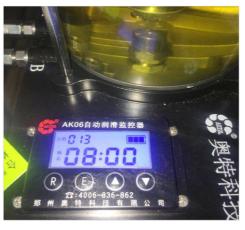
- 1 The location of pump 2 The location of Power pump
- 3 The location of monitor
- 4 The location of distributor
- ⑤ The location of tube and wire harness 6 Suction & Discharge Device
- 7 Waste grease collection
- 8 Lube points

Lubrication parts:Pitch Lubrication pump: ALP1024、APP502w Lube points:36



Type of Distributor: Single-line Distributor Number of Distributor: 3















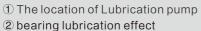
CLS and WGCS of XEMC

Manufacturer: XEMC Wind turbine: XE82

Lubrication parts: blade bearing /gear Type of Lubrication: ALP702W/ALP1028 Installation Date: 2017.6.12

Lube points: 27





3 Effect of WGCS







CLS of Vision energy(1)

Manufacturer: Vision energy Wind turbine: 2.5MW Lube points: 27

Installation Date: 2017.6.12

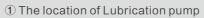
Lubrication parts: blade bearing / gear Type of Lubrication: ALP1228

Type of Distributor: Progressive Distributor

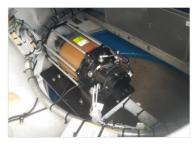
Number of Distributor: 4







- 2 The location of distributor
- 3 The location of pinion
- 4 The location of tube and wire harness



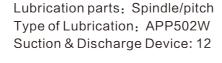






WGCS of DEC

Manufacturer: DEC Wind turbine: 1.5MW Installation Date: 2017.9.13





- 1) The location of Lubrication pump
- 2 The location of distributor
- 3 The location of monitor
- 4 The location of Suction&Discharge Device







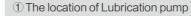


CLS of Vision energy(2)

Manufacturer: Vision energy Wind turbine: 2.0MW Installation Date: 2018.6.29

Lubrication parts: Main bearing Type of Lubrication: APP502W、ALP1228 Suction & Discharge Device: 12





- 2 The location of distributor
- 3 The location of Power pump
- 4 The location of Suction&Discharge Device









CLS of CSR

Manufacturer: CSR Wind turbine: XE82 Installation Date: 2016.10 Lubrication parts: Yaw
Type of Lubrication: ALP1016
Lube points: 12



- 1 The location of Lubrication pump
- 2 The location of monitor
- 3 The location of distributor







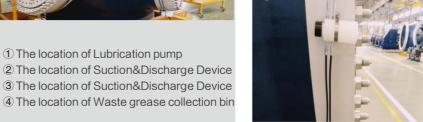
WGCS of Geoho Energy

Manufacturer: Geoho Energy Wind turbine: 2.5MW Installation Date: 2018.4 Lubrication parts: Pitch, Main bearing Type of Lubrication: APP502W Suction & Discharge Device: 21











CLS and WGCS of Longyuan Power

Manufacturer: longyuan power Wind turbine: 1.5MW Installation Date: 2016.8

Lubrication parts: Pitch
Type of Lubrication: ALP1228/ALP702W
Suction & Discharge Device: 24



- 1 The location of Lubrication pump
- 2 The location of monitor
- ③The location of Suction&Discharge Device

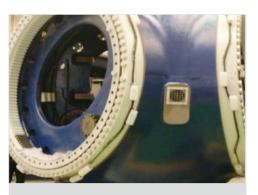






CLS of XuJi Group

Manufacturer: XuJi Group Wind turbine: 2.5MW Installation Date: 2017.11 Lubrication parts: Pitch
Type of Lubrication: APP502W、ALP1022
Suction & Discharge Device: 12



- 1 The location of Lubrication pump
- 2 The location of distributor
- 3 The location of Power pump
- ④ The location of Suction&Discharge Device







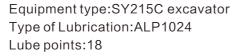


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The Installation Case of Construction machinery

CLS of SanY 215C Excavator

Manufacturer:SanY Type of Distributor: Progressive Distributor Number of Distributor:3 Installation Date:2017.3.20







- 2 The location of distributor
- 3 The location of distributor
- 4 The location of tube and wire harness









CLS of SanY 485 Excavator

Manufacturer:SanY Type of Distributor: Progressive Distributor Equipment type: SY485 excavator

Number of Distributor:3 Installation Date: 2018.3.16 Type of Lubrication: ALP1026 Lube points:9





- 1 The location of pump
- 2 The location of distributor
- 3 Lubrication point location
- 4 The location of tube and wire harness



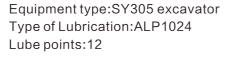






CLS of SanY 305 Excavator

Manufacturer:SanY Type of Distributor: Progressive Distributor Number of Distributor:3 Installation Date: 2018.5.12





- 1 The location of pump
- 2 The location of distributor
- ③ The location of distributor
- 4 The location of tube and wire harness









CLS of SanY 750 Excavator

Manufacturer:SanY Type of Distributor: Progressive Distributor Equipment type: SY750 excavator Number of Distributor:3 Installation Date: 2018.3.10



- 1 The location of pump
- 2 The location of distributor
- 3 Lubrication point location
- 4 The location of tube and wire harness



Lube points:9

Type of Lubrication: ALP1026







CLS of Komatsu 240 Excavator

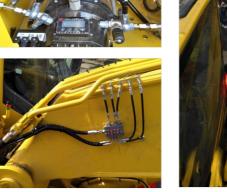
Manufacturer:Komatsu Type of Distributor:Progressive Distributor Number of Distributor:3 Installation Date:2018.3.28

Equipment type:Komatsu 240 excavator Type of Lubrication:ALP1026 Lube points:9



- 1 The location of pump
- 2 The location of tube and wire harness
- 3 The location of distributor







CLS of Komatsu 460 Excavator

Manufacturer:Komatsu
Type of Distributor:Progressive Distributor
Number of Distributor:2
Installation Date:2017.10.14







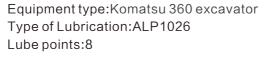




- 1 The location of pump
- 2 The location of tube and wire harness
- 3 The location of tube and wire harness

CLS of Komatsu 360 Excavator

Manufacturer:Komatsu
Type of Distributor:Progressive Distributor
Number of Distributor:2
Installation Date:2017.10.14





- 1 The location of pump
- ② The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness









CLS of Hitachi 360 Excavator

Manufacturer:Hitachi
Type of Distributor:Single-line Distributor
Number of Distributor:3
Installation Date:2018.7.10



- 1) The location of pump
- ② The location of tube and wire harness
- 3 The location of distributor

Equipment type:Hitachi 360 excavator Type of Lubrication:ALP1026 Lube points:20







CLS of Catepillar Excavator

Manufacturer:Catepillar Type of Distributor: Progressive Distributor Number of Distributor: 2 Installation Date: 2017.11.15

1) The location of pump

2 The location of monitor

3 The location of distributor

4 The location of tube and wire harness







Equipment type: Catepillar 390 excavator Type of Lubrication: ALP1026





CLS of XCMG XE700D Excavator

Manufacturer: XCMG Type of Distributor: Single-line Distributor Number of Distributor: 2 Installation Date: 2017.3.18







- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness

CLS of Sunward Excavator

Manufacturer: Sunward Type of Distributor: Progressive Distributor Number of Distributor: 3

Installation Date: 2017.7

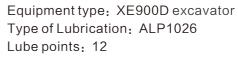
1) The location of pump 2 The location of distributor Equipment type: SWE70B excavator Type of Lubrication: ALP822 Lube points: 17





CLS of XCMG XE900D Excavator

Manufacturer: XCMG Type of Distributor: Single-line Distributor Number of Distributor: 2 Installation Date: 2017.3.18



Equipment type: XE700D excavator

Type of Lubrication: ALP1026



- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness





CLS of KOBELCO 350 Excavator

Manufacturer: KOBELCO Type of Distributor: Progressive Distributor Number of Distributor: 3 Installation Date: 2017.6.19

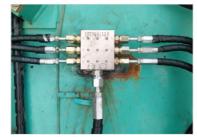


- 1) The location of distributor
- 2 The location of pump
- 3 The location of distributor

Equipment type: SK350LC-8 excavator Type of Lubrication: ALP1024 Lube points: 17







CLS of FAW and Beiqi Foton

Manufacturer: FAW and Beigi Foton Type of Distributor: single-row single-line Number of Distributor: 2 Installation Date: 2018.6

Lube points: 52

Equipment type: Trailer

Type of Lubrication: AR60H







- 1) The location of distributor
- 2 The location of tube and wire harness

CLS of KOBELCO 380 Excavator

Manufacturer: KOBELCO Type of Distributor: Progressive Distributor Number of Distributor: 4 Installation Date: 2018.6.12



- 1 The location of pump
- 2 The location of distributor
- 3 The location of tube and wire harness
- 4 The location of tube and wire harness

Equipment type: 380 excavator Type of Lubrication: ADP1224 double-line Lube points: 12











CLS of Liming heavy Industry 860 Crusher

Manufacturer: Liming heavy Industry Type of Distributor: Progressive Distributor Number of Distributor: 1 Installation Date: 2018.3.9

Equipment type: 860 Crusher Type of Lubrication: ALP1024 Lube points: 4



- 1 The location of pump
- 2 The location of tube and wire harness
- 3 The location of distributor







CLS of Doosan Loader

Manufacturer: Doosan Type of Distributor: Progressive Distributor Equipment type: DL503-9C Loader Number of Distributor: 3

Installation Date: 2017.6.19



- 1 The location of pump
- 2 The location of distributor
- 3 The location of lube points
- 4 The location of tube and wire harness



Type of Lubrication: ALP1022



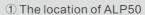




CLS of Ginaf

Manufacturer: Ginaf Type of Distributor: single-row single-line Number of Distributor: 2 Installation Date: 2014.4.3





- 2 The location of distributor
- 3 The location of AR60
- 4 The location of distributor

Equipment type: HD 5395 TS truck Type of Lubrication: ALP502, AR60H Lube points: 23/22



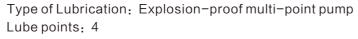






CLS of Beijing Huade

Manufacturer: Beijing Huade Equipment type: Crusher Installation Date: 2017.5.18





- 1 The lubrication pump
- ② The control box
- 3 The grease tube







CLS of Yutong

Manufacturer: Yutong Type of Distributor: Single-line Distributor Number of Distributor: 4 Installation Date: 2017.6



- 1 The location of pump
- 2 The location of monitor
- ③ The location of distributor
- 4 The location of tube and wire harness

Equipment type: Garbage compression vehicle

Type of Lubrication: ALP1022

Lubrication parts: Chassis, rear bin garbage collection rack

Lube points: 42









$CLS\ of\ Sunhunk\ (\textit{Heavy truck}\ \textit{HOWO}\ \textit{chassis}\ \textit{HOWO}\ \textit{T5G340})$

Manufacturer: Sunhunk Type of Distributor: single-row single-line Number of Distributor: 4









Equipment type: Mixer Type of Lubrication: AR60H Lube points: 43





Installation Date: 2018.2.2



- 1 The location of pump
- ② The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness

$CLS\ of\ Sunhunk ({\sf Heavy\ truck\ HOWO\ chassis\ HOWO\ mine\ overlord\ 371})$

Manufacturer: Sunhunk Type of Distributor: single-row single-line Number of Distributor: 2 Installation Date: 2018.2



- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 Lube points

Equipment type: truck Type of Lubrication: AR60H Lube points: 27









CLS of Sunhunk

Manufacturer: Sunhunk Type of Distributor: single-row single-line Number of Distributor: 4 Installation Date: 2017.12.7



- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 Lube points

Equipment type: Dump truck Type of Lubrication: AR60H

Lube points: 54

Lubrication parts: Tractor chassis, trailer chassis



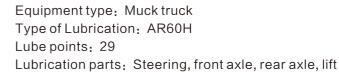






CLS of Sunhunk

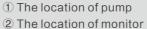
Manufacturer: Sunhunk Type of Distributor: single-row single-line Number of Distributor: 2 Installation Date: 2018.2











- 3 The location of distributor
- 4 Lube points





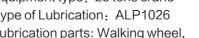
CLS of Dalian 25 ton portal crane

Manufacturer location: Dalian Zhuanghe Port Type of Distributor: Progressive Distributor Number of Distributor: 6 Installation Date: 2017.5.18



- 1 The lubrication pump
- ② The distributor
- 3 The distributor
- 4 The feeding pump

Equipment type: 25 tons crane Type of Lubrication: ALP1026 Lubrication parts: Walking wheel, rotary support, universal driving shaft











Lube points: 103

CLS of Dalian 45 ton portal crane

Manufacturer location: Dalian Zhuanghe Port Equipment type: 45 tons crane Type of Distributor: Progressive Distributor Number of Distributor: 18 Installation Date: 2017.5.18



- 1 The distributor
- ② The distributor
- 3 The Lubrication pump
- 4 The distributor

Type of Lubrication: ALP1026 Lube points: 96 Lubrication parts: Walking wheel









CLS of Huaneng Caofeidian Port Conveyor

Customer Name: Huaneng Caofeidian Port

Equipment type: Belt conveyor Number of installations: 21+15

Type of Lubrication: Explosion-proof multi-point pump

Lube points: 4

Installation Date: 2017.5.18 Number of belt conveyors: 27





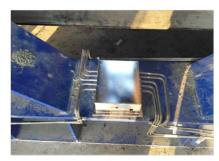












CLS of Tianjin SERI(1)

Manufacturer: Tianjin SERI

Type of Distributor: Progressive Distributor

Number of Distributor: 2 Installation Date: 2017.6.29



- 1 The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness

Equipment type: SR50 electric shovel Type of Lubrication: DRB2-P120Z Lube points: 25





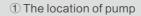




CLS of DSIC

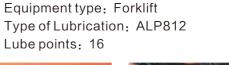
Manufacturer: DSIC Type of Distributor: Single-line Distributor Number of Distributor: 2 Installation Date: 2017.5.25





- 2 The location of tube and wire harness
- 3 The location of tube and wire harness











CLS of Tianjin SERI(2)

Manufacturer: Tianjin SERI

Type of Distributor: Progressive Distributor

Number of Distributor: 2 Installation Date: 2017.6.29



- 1 The location of pump
- 2 The location of monitor
- ③ The location of distributor
- 4 The location of tube and wire harness

Equipment type: SR50 electric shovel Type of Lubrication: ALP1014 Lube points: 19











CLS of DSIC

Manufacturer: DSIC Type of Distributor: Single-line Distributor Number of Distributor: 24 Installation Date: 2017.5.25



- 1 The location of pump
- 2 The location of monitor
- ③ The location of tube and wire harness
- 4 lube points

Equipment type: flatbed truck Type of Lubrication: ALP100 series Lube points: 192









CLS of Nanchang Kama

Manufacturer: Nanchang Kama
Type of Distributor: Single-line Distributor
Number of Distributor: 2
Installation Date: 2017.8.10



Equipment type: WJ-3 Underground scraper

Type of Lubrication: ALP1022









- 1) The location of pump
- 2 The location of monitor
- 3 The location of distributor
- 4 The location of tube and wire harness

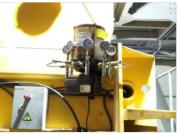
CLS of NFLG

Manufacturer: NFLG
Type of Distributor: Progressive Distributor
Number of Distributor: 2
Installation Date: 2017.6.29



- 1 The location of pump
- ② The location of monitor
- 3 The location of tube and wire harness
- 4 The location of pump station

Equipment type: 3XDB-M4.2/220C4FF 5XDB-M4.2/220C4FF Type of Lubrication: ALP1014 Lube points: 46









CLS of Kelong

Manufacturer: Kelong Equipment type: B1800 belt conveyor Number of installations: 1 Installation Date: 2017.10.11 Type of Lubrication: HB-P400Z,

Double plunger pump

Lube points: 4

Number of belt conveyors: 27











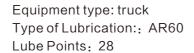






CLS of HINO MOTOR

Manufacturer: HINO MOTOR Type of Distributor:single-row single-line Number of Distributor:2 Installation Date: 2017.7







- 2 The location of distributor
- 3 The location of lube points
- 4 The location of tube and wire harness









CLS of Bottle Washer

Manufacturer: COCA COLA Type of Distributor:Progressive Number of Distributor:7 Installation Date: 2018.3

Equipment type:Bottle Washer Type of Lubrication: ALP1228HNA Lube Points:60



- ② The location of distributor
- 3 The location of lube points





