

#### 1.APPLICATIONS

Sewer Cleaning Combination Vehicle

Water Jetting Truck

Vacuum Truck

#### 2.DEFINITION

430 KGM Horizontal Medium Duty PTO which is designed with the Clutch Mechanism and it provides Hot Shift Feature.

With clutch mechanism not necessary to press clutch pedal during

Engage/Disengage process.

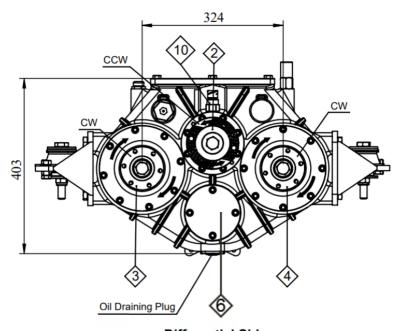
- UARA.450 takes power from main shaft to make equipment work.

For input and output flanges;

ISO 8667, ISO 7646, ISO 7647 standards are available.



- UARA.450 has 2 side outputs which are indicated as 3&4 and capable to transmit up to 85 kW and 2 bottom service pump pads which are indicated as 5&6 and capable to transmit up to 35 kW.



**Differential Side** 



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- UARA.450 Split Shaft PTO has hot shift feature thanks to clutch mechanism. Clutch mechanism engage or disengage the system without pressing the clutch pedal. The split shaft is controlled by pneumatic system. When air inlet is done to "7" elbow union 5&6 outputs are active. To engage side outputs "C" and "D" rotary unions should be active with pneumatic way. "8" and "9" works independently.

## 3.1. MAIN INPUT-OUTPUT **\( \Delta \& \Phi \)**

Maximum Torque 430 KGM

Maximum Rotation (RPM) 2500 - 3300

3.2. OUTPUT

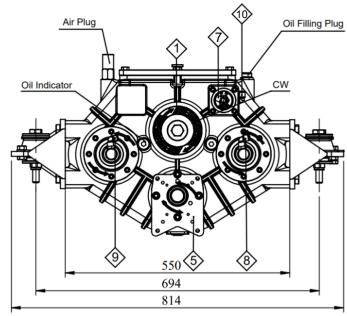
Ratio 1/1.4

Power (kW) 85 KW

**3.3. OUTPUT** 

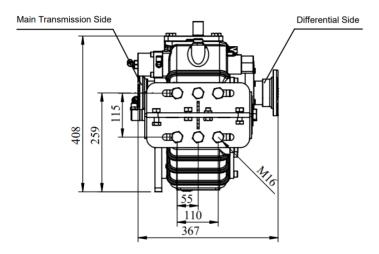
Ratio 1/1.7

Power (kW) (1000 RPM) 35 KW



**Main Transmission Side** 

#### 3.4. SENSE OF ROTATION



## 4. ENGAGING & DISENGAGING

Generally, engaging-disengaging operation is made by the 6-8 bar double-action pneumatic cylinder. To keep engage or disengage stable there is safety catch system.

In case of not fallowing these instructions, the vehicle is out of warranty coverage.



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### 6) SERVICE

#### **OIL FILLING**

The split shaft units are shipped as unoiled. Oil should be filled into the Split Shaft Pto using the oil filling mechanism, before running the vehicle. The oil filling operation should be made on the ground. The correct oil level is the top level shown on the indicator. The oil should be totally clean. You are required to use only the recommended oil. (ATF 320 or equivalent oil) In case of using any oil other than the recommended oil, the vehicle is out of warranty coverage.

#### 7)MAINTENANCE

#### 7.1 OIL LEVEL CONTROL

Maintenance should be made before and after long trips. Maintenance should be made at ground level and when the vehicle is not running. In case the oil level is less than required, oil should be added.

#### 7.2 OIL REPLACEMENT

Make sure that old oil is totally drained and make sure that you are using recommended (correct) oil. In case of mixing old and new oil;

This situatation is going to cause damage of components of gearbox (shaft, gear, bearing etc.)

#### 7.3 OIL CHANGING

First oil changing should be made following 100 hours after the Split Shaft Unit has started to run. Oil changing should be made when the oil is cold. Draining could be made by removing the drain plug. In order to accelerate the process, it is recommended to remove the filling plug also. Before re-starting, the drain plug is required to be cleaned. Subsequent oil replacements should be made once in every 1000 hours or once a year..

#### **IMPORTANT**

During oil replacement, do not touch the hot oil. Act in compliance with the country legislations in the disposal of the waste oil. Do not pollute the environment.



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#### 7.4 IDENTIFICATION of OIL LEAKS

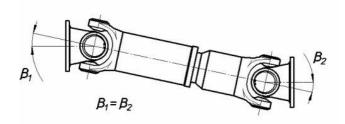
Check for oil leaks periodically. Check for any oil leaks in the area where the vehicle is operated and the surroundings. In case of detecting any oil leaks, Prevent oil leaking, add oil if necessary, contact with manufacturer firm KOZANOĞLU KOZMAKSAN

#### 7.5 GENERAL EQUIPMENT CONTROL

Check for equipments and parts of product periodically. If needed, make bolts tighten

#### **INSTALLATION**

- There must be special suspension kit to install the PTO
- The gearbox's brackets should be screwed proper location on chassis. Before screw the proper location on chassis, approval should be received by manufacturer. NEVER INSTALL IT WITH WELDING PROCESS
- · Balanced shafts should be used
- U-joint flanges should be parallel. This analogy avoids vibration and noise. Also shaft of main transmission, the gearbox and other components should be install compatible to this parallelism. β1 and β2 angels should be identical. These angels are changeable due to chassis type and ratio between 3°-7°



SPEED	OPERATING ANGLE
5000 RPM	3° 15'
4000 RPM	4° 15'
3000 RPM	5° 30'

• Shaft of PTO and transmission should be install with u-joint bolts. U-joint screw diemensions, should match with equipments and should avoid any possible friction and collision..Yokes and reference points which placed on shaft should be controlled and should be checked for making sure.

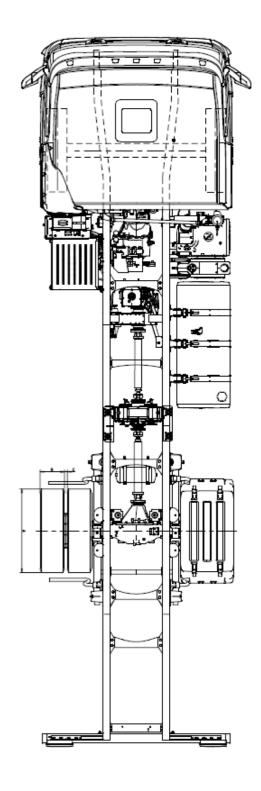


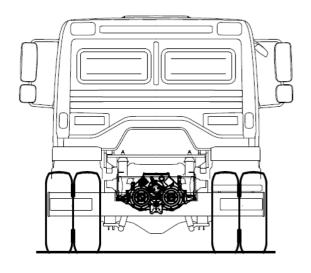
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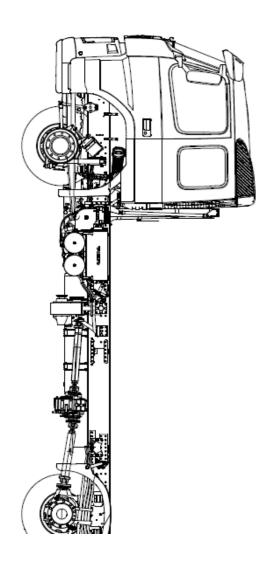
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# - CHASSIS CONNECTION









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