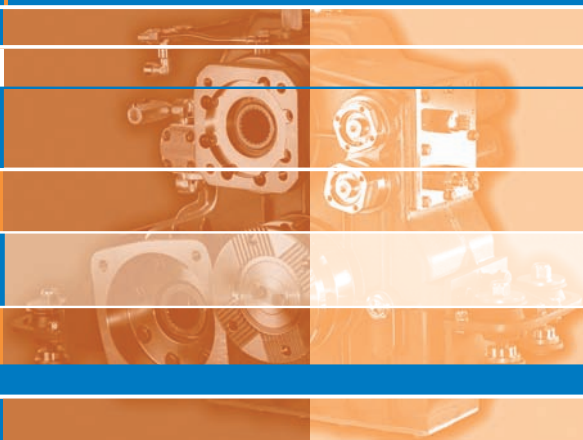




OMSI Trasmissioni S.p.A.

Hydro - mechanical drives



**Groups for industrial machines
with hydro - mechanical drives**

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
=ISO 9001/2000=



OMSI Trasmissioni S.p.A.

Since 1959



OMSI Trasmissioni S.p.A. was founded in 1959 and today is the leader in application studies and development of custom mechanical drives including:

SPLIT SHAFT AND ENGINE POWER TAKE-OFFS

Used in sewer cleaning machines, concrete pumpers, fire fighting vehicles.

COMBINED DRIVE GROUPS - MECHANICAL / HYDROSTATIC

Used in street sweepers, street flushers, airport support equipment.

AXLES, TRANSMISSIONS AND GEARBOXES

Used in agricultural and industrial machines.

RAILWAY TRANSMISSIONS

Used in railway maintenance vehicles.

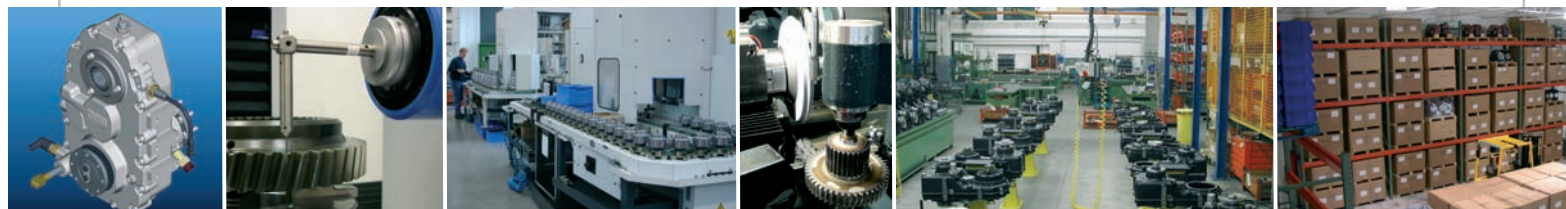
OMSI Trasmissioni S.p.A. is structured with internal systems for the design and planning, production and process controls; guaranteeing manufacturing flexibility and assuring constant quality levels. The company's philosophy is strong on its research and development and continuing improvement of its product line.

OMSI 's quality

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
=ISO 9001/2000=

The company has been certified as UNI EN ISO 9001 compliant since 1993 and updated to the new norm of UNI EN ISO 9001:2000 in 2003.

OMSI 's world



OMSI in the world

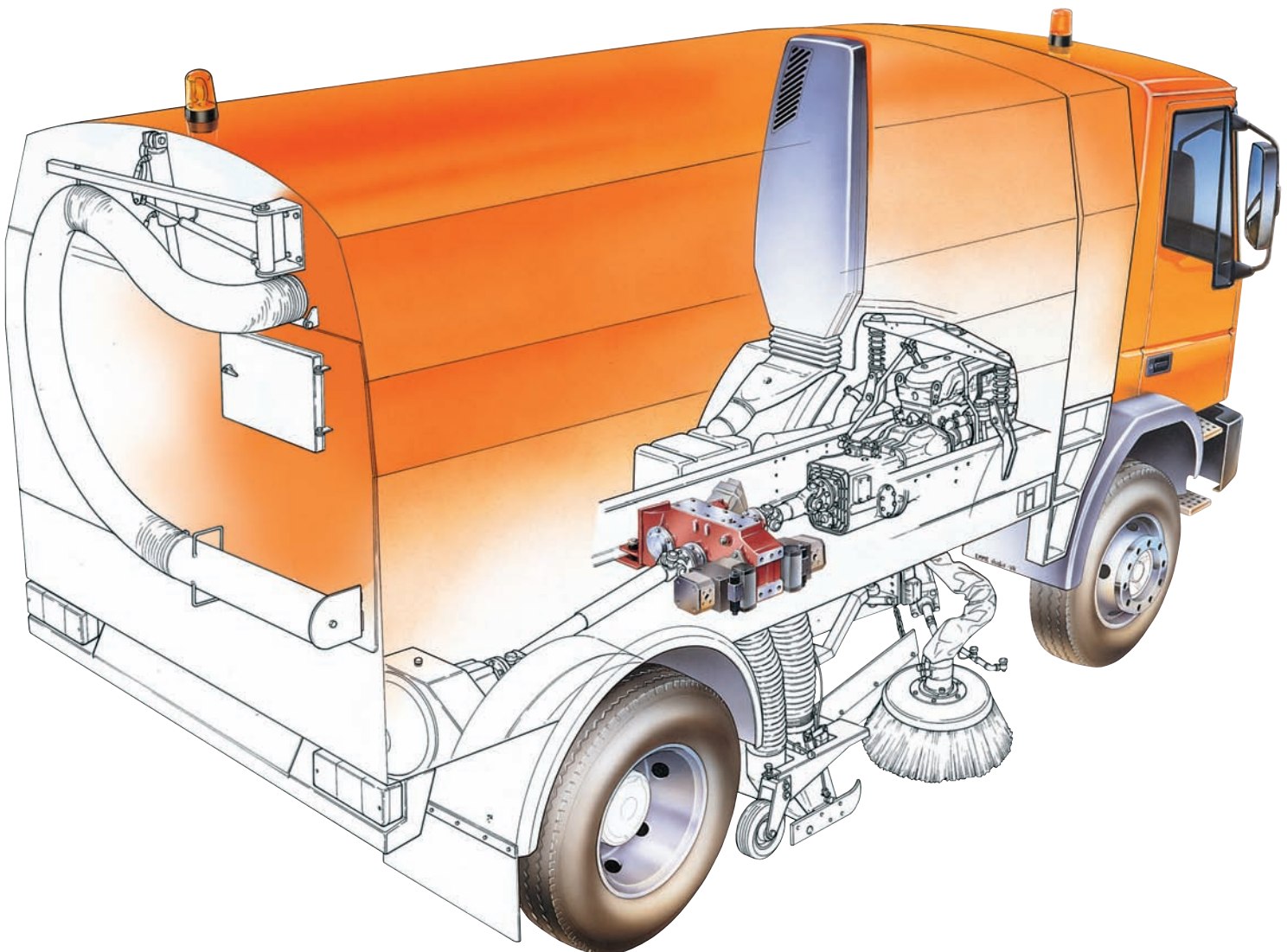


Groups for industrial machines with combined drive systems: mechanical and hydrostatic

The OMSI Trasmissioni S.p.A. groups for combined drive systems (mechanical and hydrostatic) are suspended with their flexible mounts to the chassis frame between the transmission and differential of the truck. They are set up to couple a hydraulic pump and a hydraulic motor that, when connected through a hydraulic circuit, permit the conversion of the vehicle's traction from mechanical to hydrostatic.

They are designed for vehicles requiring very low forward speeds and easy control during the work (hydrostatic), and allowing that the mechanical drive be restored during the transfer so that top speed can be reached.

An additional output, used as a power take-off at constant speed, eliminates the need for an auxiliary engine.



Advantages of OMSI groups for combined mechanical and hydrostatic drives

In the working mode the hydrostatic drive provides:

A noticeable improvement to the maneuverability of the vehicle

The functions of controlling the speed, breaking and reverse direction performed by one pedal only without clutch, resulting in the most comfort for the operator and minimum wear for the drive gears

Control of advancement and variation of speed in a continuous condition from 0-15, 0-25 km/h

The power take-off at constant speed operates all SYSTEMS and therefore it allows to:

ELIMINATE THE AUXILIARY ENGINE

Decrease exhaust emissions and safeguard the environment

Use the only engine of the vehicle in the optimal conditions of performance, reducing fuel consumption

Reduce noise levels by the use of only one engine at constant and moderate revolutions

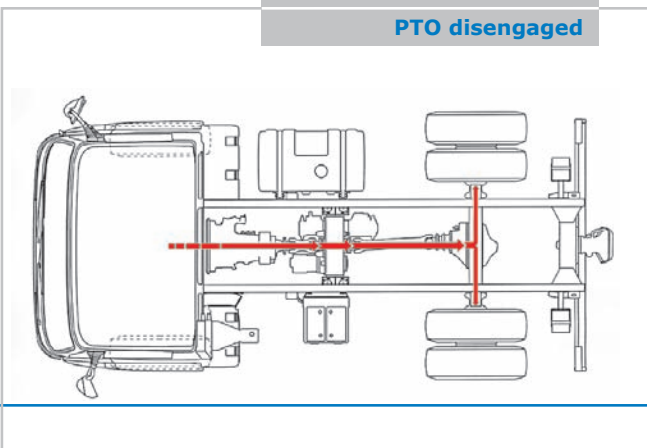
Improve the weight distribution and increase the payload to be transported

Create space above the chassis frame for the installation of water reservoirs or ADDITIONAL filter compartments for COMPLETE DUST CONTROL

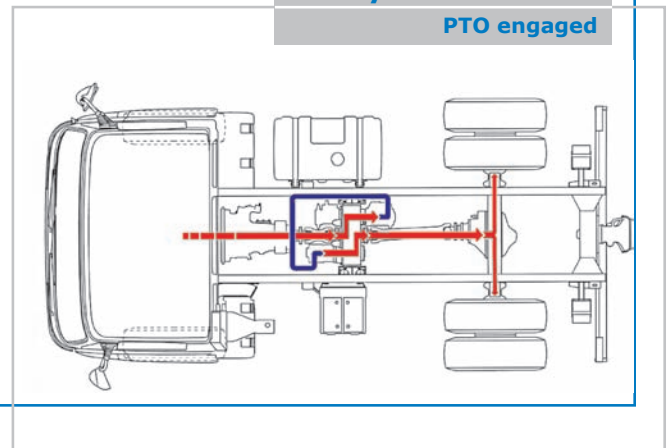
Reduce maintenance time and cost

Select a more compact vehicle at a lower cost with comparable capabilities of operation

Mechanical drive
PTO disengaged



Hydrostatic drive
PTO engaged



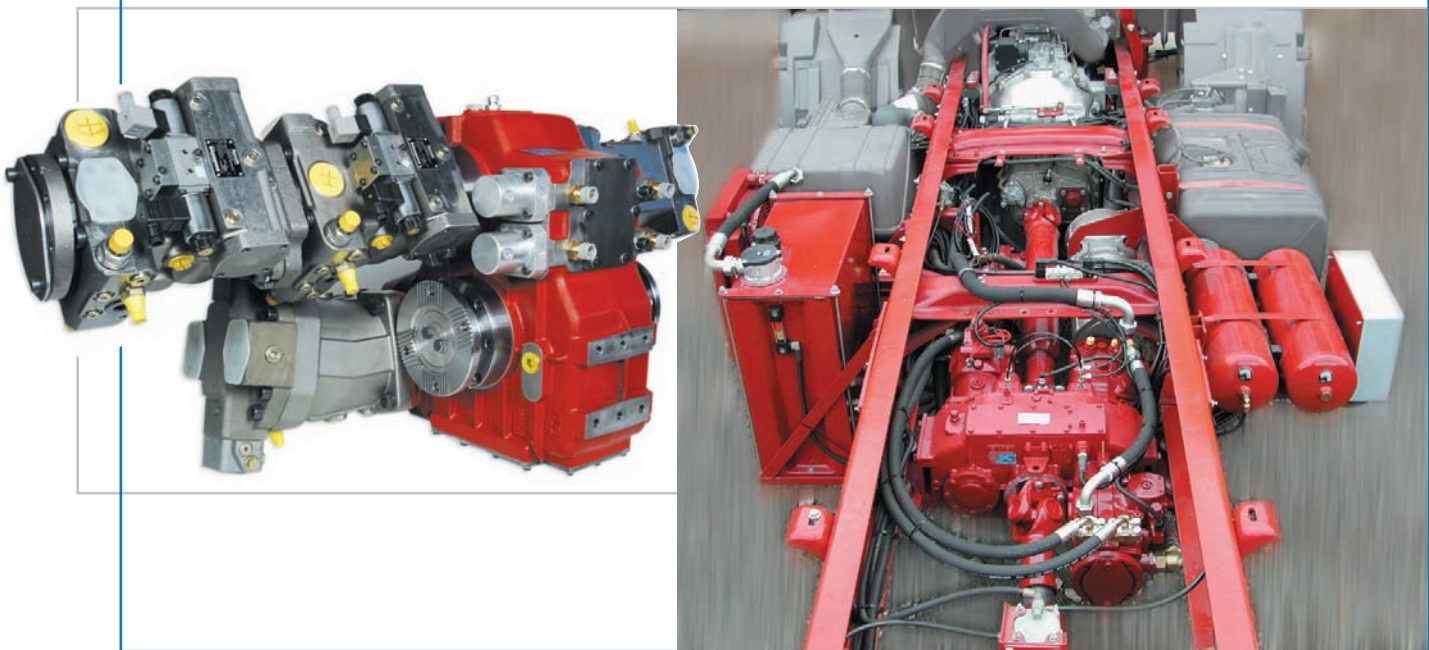
Groups for mechanical and hydrostatic drive with flange mounts for hydraulic pumps and motor

Know-How

OMSI Trasmissioni S.p.A. could provide you with assistance through the design and project development for specifications and selection of hydraulic components and controls for your hydrostatic drive machine.

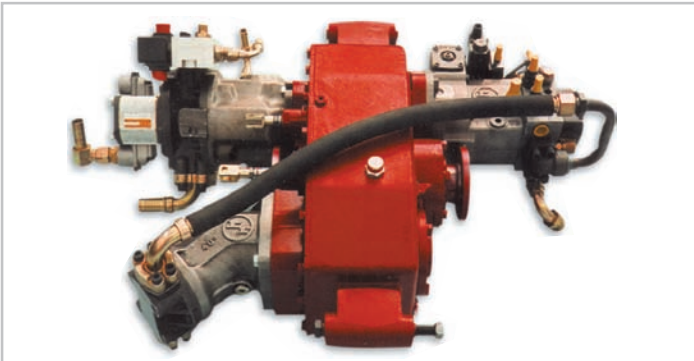
Our Sales Department could supply you with the "Hydrostatic Drive Analysis" form that you could complete and return to us in order to provide you with the most suitable combination of hydrostatic components to maximize the efficiency of your machine.

Our large selection of hydro-mechanical drive models, combined with our experience of over 25 years and the close relationship we have with major manufacturers of hydraulic components, allows us to offer you customized solutions for your specific applications.



Applications

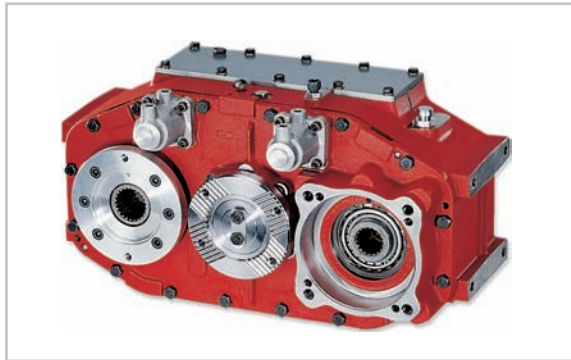
Vehicles with equipment for cleaning of streets and airports (sweepers) - High-pressure and Vacuum Cleaning Vehicles - Catch Basin Units - Sewer Cleaners and Septic Tankers - Street Flushers - Fire Trucks - Snow Blower Vehicles.



HT100/350	
Truck size range	3,5 to 7 t.
Torque-mechanical drive	3.500 Nm
Torque-hydrostatic drive	1.500 Nm
Power-pump outputs	75 kW

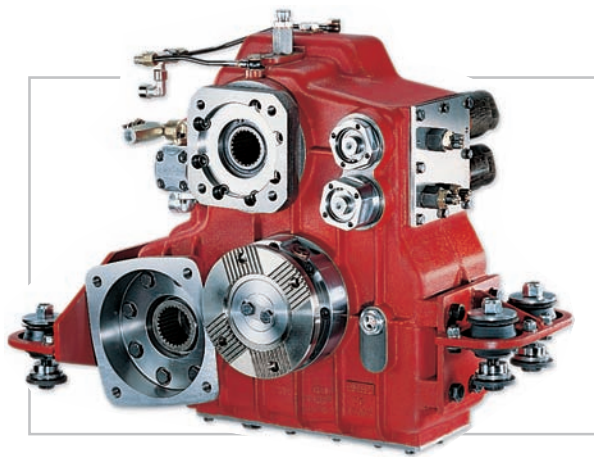


Groups for mechanical and hydrostatic drive with flange mounts for hydraulic pumps and motors



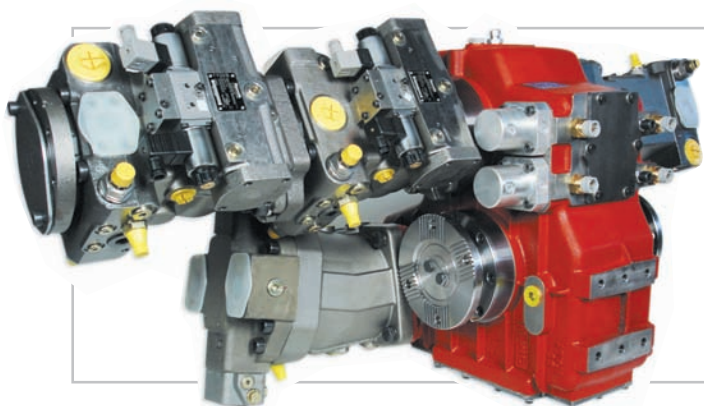
HT400/1200

Truck size range	9 to 18 t.
Torque-mechanical drive	12.000 Nm
Torque-hydrostatic drive	4.000 Nm
Power-pump outputs	110 kW



HT380/3000

Truck size range	19 to 26 t.
Torque-mechanical drive	30.000 Nm
Torque-hydrostatic drive	3.800 Nm
Power-pump outputs	180 kW



HT600/3000

Truck size range	19 to 32 t.
Torque-mechanical drive	30.000 Nm
Torque-hydrostatic drive	6.000 Nm
Power-pump outputs	200 kW





PFT - PCH/3000

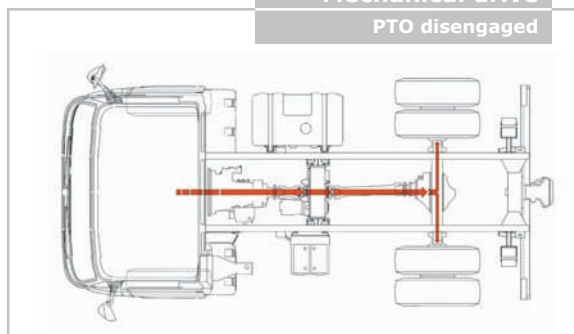
Truck size range	26 to 42 t.
Torque-mechanical drive	30.000 Nm
Torque-hydrostatic drive	9.200 Nm
Power-pump outputs	380 kW



Groups for mechanical and hydrostatic drives with flange mounts for a hydraulic motor

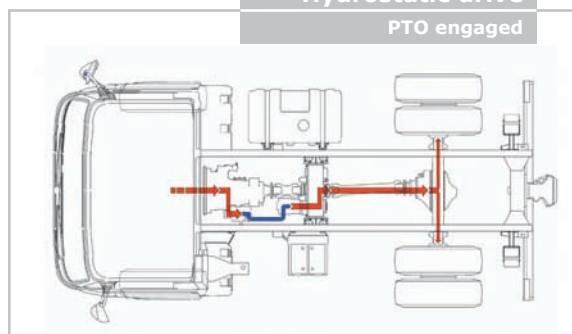
Mechanical drive

PTO disengaged



Hydrostatic drive

PTO engaged

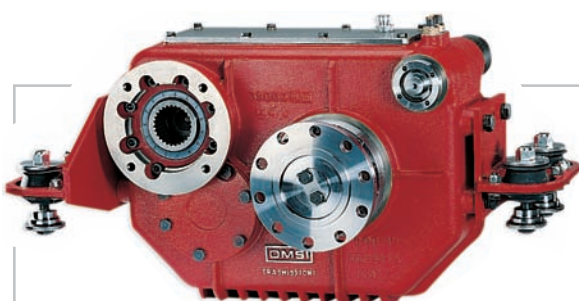


This reduction box has a mounting flange for a hydraulic motor that connected to a pump operated by the diesel engine or from the transmission, permits the conversion, in a working mode at low speed, of the vehicle's traction from mechanical to hydrostatic.

The wide range of ratios available up to 14.6 (or higher upon request), allows a very low speed and the possibility to use a small displacement hydro motor or electric motor keeping a high output torque during hydrostatic drive. (The gearbox PTO must be used with the truck gearbox in neutral speed)

Applications

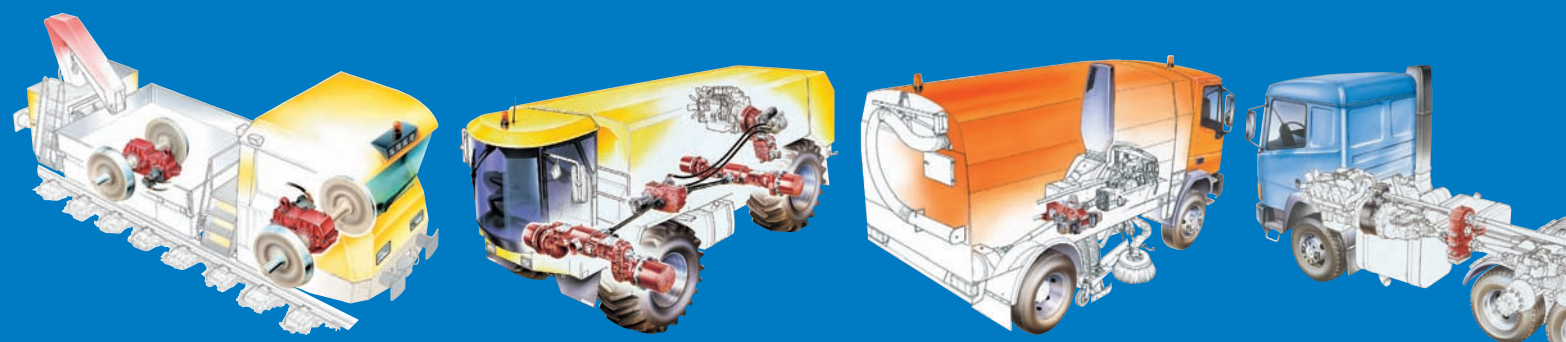
Municipal Equipment - Semi-trailers with traction for off-the-road use - Cranes - Track Maintenance Machinery.



RPM 15/3000

Truck size range	18 to 42 t.
Torque-mechanical drive	30.000 Nm
Torque-hydrostatic drive	11.000 Nm





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