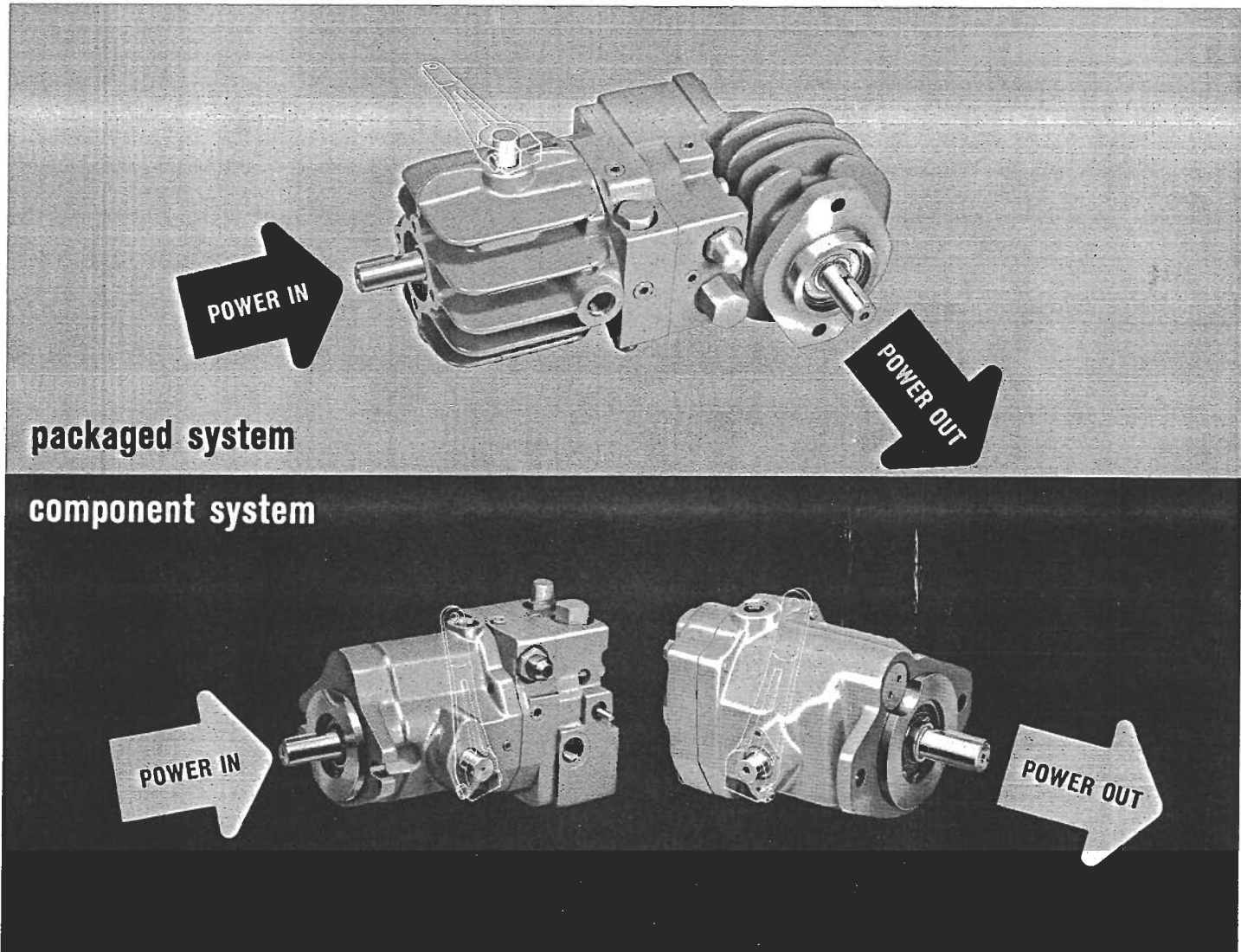


# VICKERS®

## HYDROSTATIC VEHICLE TRANSMISSIONS



- Capacity to 18 hp
- Stepless speed control
- Reversible output
- Dynamic braking
- Overload protection
- Field serviceable
- Air cooled

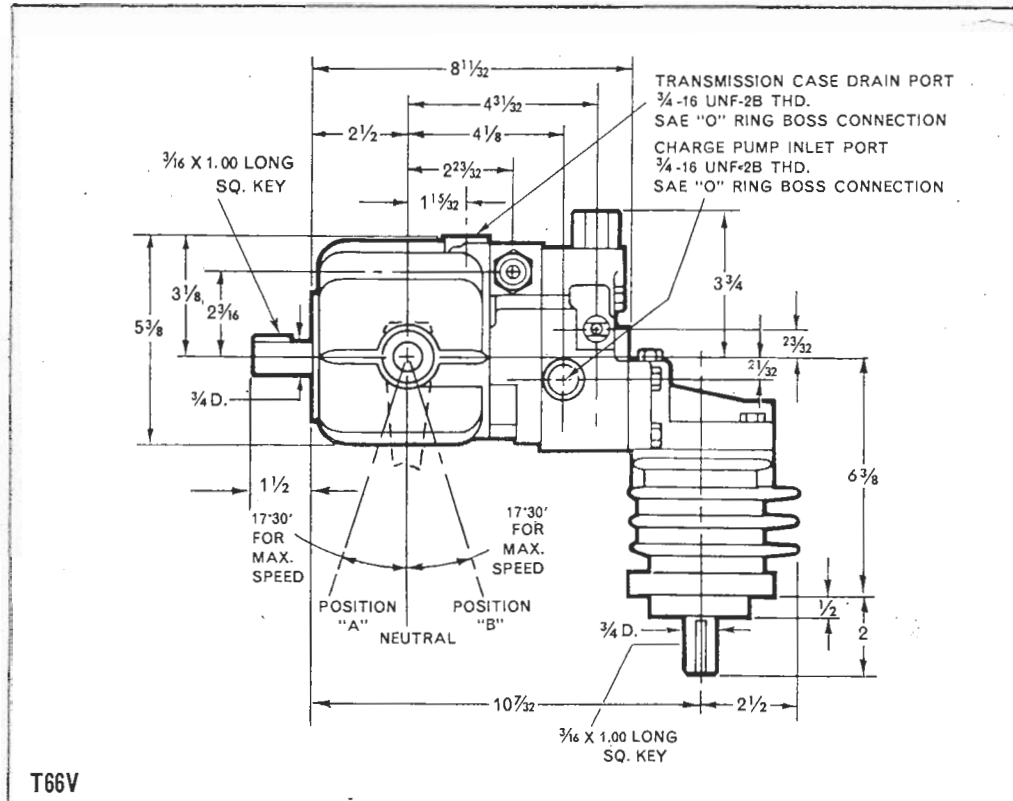
# T66 PACKAGED SYSTEM

## DESCRIPTION

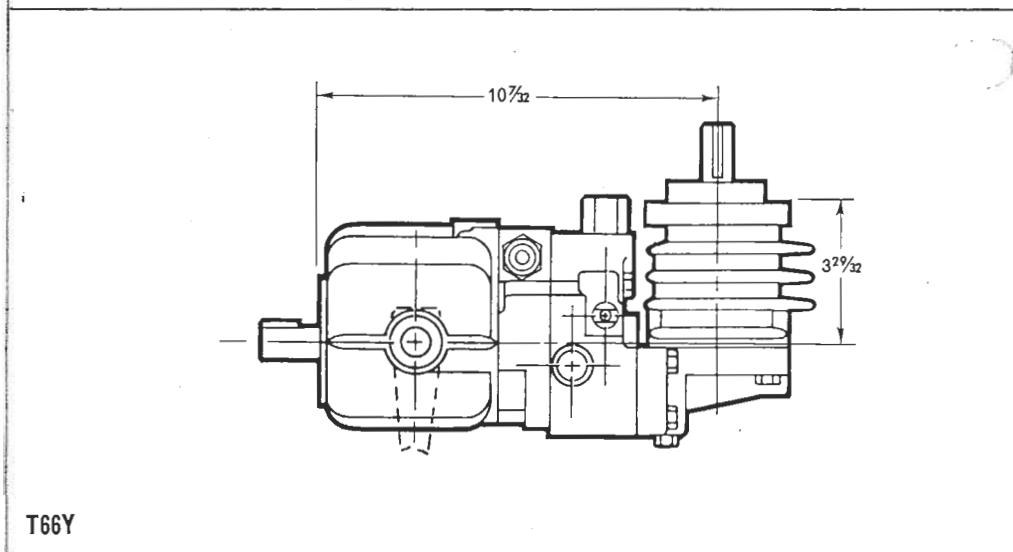
The T66 is a completely packaged, variable speed, reversible hydrostatic vehicle transmission. It consists of a variable displacement pump and a fixed displacement motor, mounted together and connected by a valve block which contains all necessary valving and hydraulic passages. An auxiliary pump for system replenishment and cooling, and for intermittent auxiliary power supply, is also included in the T66 package. Since all circuit components are in one package, external high pressure hoses and connections are eliminated—resulting in higher reliability. Both the pump and motor housings are finned to permit air cooling in most applications. Therefore, separate heat exchangers and the attendant complex circuitry are not required on many applications.

## T66 TRANSMISSION MODEL CODE

T66Y-2A-2-10-A-L	
<b>CONFIGURATION</b>	<b>PUMP ROTATION VIEWED FROM SHAFT END</b>
V—Pump and motor at 90° with motor extending away from pump	L—Left hand —(Omit for right hand)
X—Pump over motor with both shafts extending in same direction	<b>TRANSMISSION RATING</b>
Y—Pump and motor at 90° with motor directly behind pump for minimum space envelope	A—18 hp rating —(Omit for 12 hp rating)
Z—Pump over motor with shafts extending in opposite directions	<b>SHAFT</b>
	1—Splined 2—Straight keyed

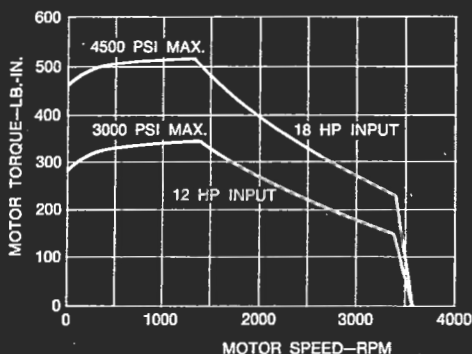


T66V



T66Y

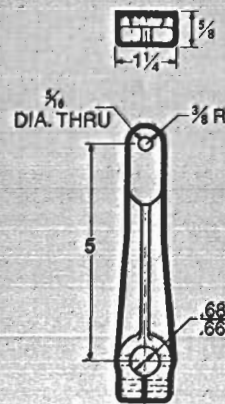
TRANSMISSION PERFORMANCE AT CONSTANT INPUT HORSEPOWER AND 3600 RPM INPUT (Based on SAE 10W at 180°F) SPEED VS. TORQUE



## General Information

### FILTRATION

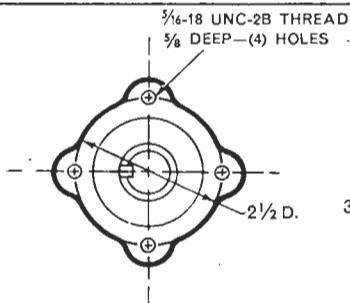
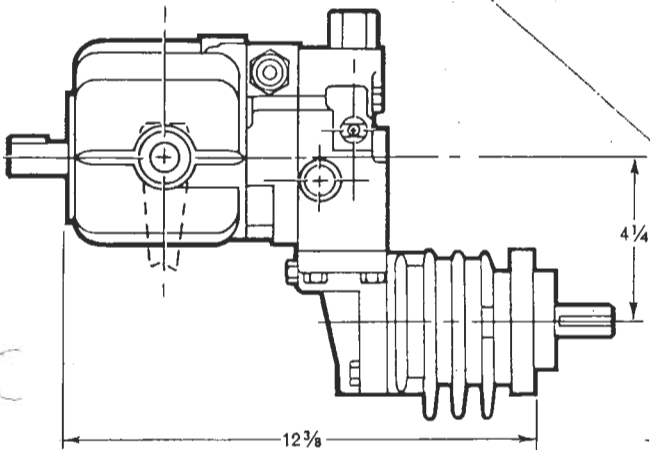
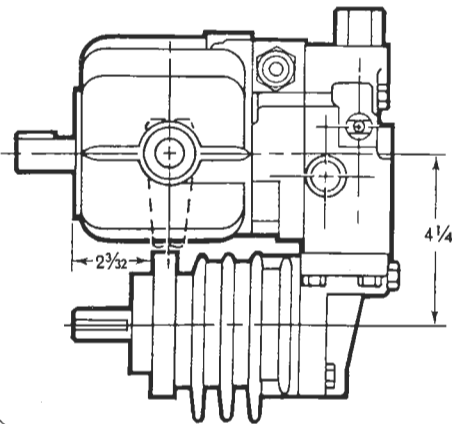
These units should be initially and continuously filtered to 25 microns or finer.



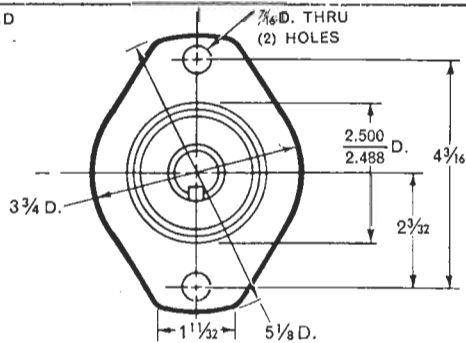
LEVER CONTROL FOR TRANSMISSION PUMPS & MOTORS (includes hardware for mounting). Lever kit is not furnished with transmission pumps or motors. Order separately by model number: LA5-10

T66X

T66Z



PUMP MTG. PAD



MOTOR MTG. FLANGE

**OPERATION**

A lever control governs pump displacement to deliver stepless, variable speeds in forward and reverse, that hold essentially constant regardless of vehicle attitude or load; overloads are prevented by valving in the T66. Smooth power application gained from the transmission gives maximum vehicle traction on any terrain.

**T66 TRANSMISSION OPERATING SPECIFICATIONS**

Theoretical displacement (primary pump) . . . . . variable to .843 cu. in./rev.  
 Theoretical motor displacement . . . fixed at .843 cu. in./rev.  
 Auxiliary pump capacity . . . . . 2.0 gpm @ 3600 rpm  
 Main relief valve setting . . . . . 3000 psi and 4500 psi  
 Maximum auxiliary pump pressure . . . . . 500 psi  
 Maximum lever control force . . . . . 50 in. lb/1000 psi  
 Maximum input speed . . . . . 3600 rpm  
 Maximum output speed . . . . . 3600 rpm  
 Maximum input hp @ 3600 rpm . . . . . 12 hp and 18 hp  
 Weight . . . . . 47 lbs.

**ROTATION CONTROL**

INPUT SHAFT ROTATION	OUTPUT SHAFT ROTATION	OUTPUT SHAFT ROTATION
Clockwise	Clockwise with control lever in position "A"	C'Clockwise with control lever in position "B"
Counter-Clockwise	Clockwise with control lever in position "B"	C'Clockwise with control lever in position "A"

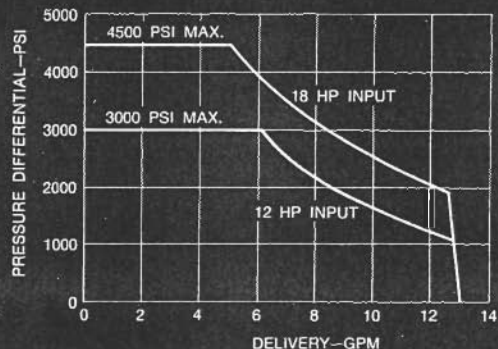
**Component and Packaged Systems**

**FLUID RECOMMENDATIONS**

HYDRAULIC SYSTEM OPERATING TEMPERATURE RANGE (MINIMUM TO MAXIMUM)	SAE VISCOSITY	API SERVICE CLASSIFICATION
0° F to 180° F	10W	MS
0° F to 210° F	10W-30	MS

Maximum viscosity . . . 4000 SUS (Low temperature start-up)  
 Minimum viscosity . . . . . 60 SUS  
 Preferred operating viscosity . . . . . 100 SUS

**PUMP PERFORMANCE AT CONSTANT INPUT HORSEPOWER AND 3600 RPM INPUT (Based on SAE 10W at 180°F) DELIVERY VS. PRESSURE**



# TA6-TRANSMISSION PUMP FOR COMPONENT SYSTEM

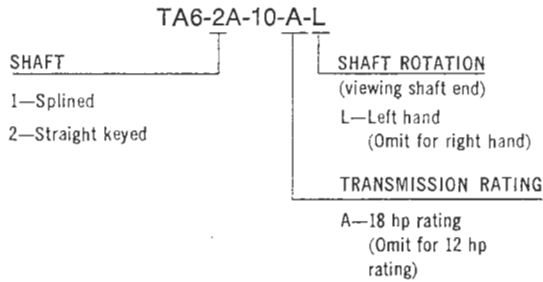
## DESCRIPTION

The TA6 pump is designed for use with a hydraulic motor to form a separate component hydrostatic vehicle transmission. A .843 cu. in./rev. (maximum) variable displacement, reversible flow, axial piston pump converts engine power to hydraulic energy. All necessary transmission circuitry components are included as an integral part of the pump. These include a positive displacement auxiliary pump, check valves, high pressure relief valves, soft-ride valve, and "neutral" valve.

## OPERATION

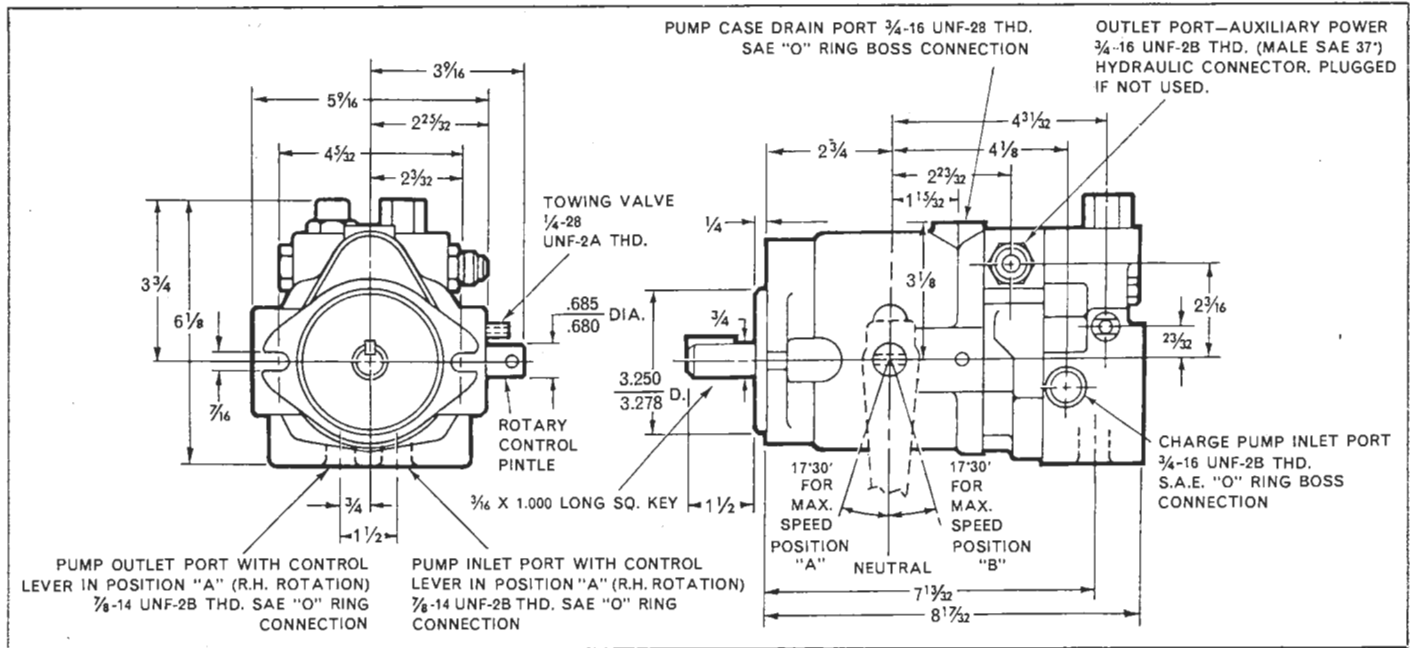
A hydrostatic vehicle transmission is created when the TA6 is connected to a fixed or variable displacement motor. Separate component transmissions operate in essentially the same manner as the packaged units described on preceding pages. They provide stepless, reversible, variable speeds with built-in dynamic braking and overload protection.

## TA6 TRANSMISSION PUMP MODEL CODE



## OPERATING SPECIFICATIONS TA6 TRANSMISSION PUMP

Theoretical displacement (primary pump)	..... variable to .843 cu. in./rev.
Pump delivery	..... See curve on preceding page
Auxiliary pump capacity	..... 2.0 gpm @ 3600 rpm
Main relief valve setting	..... 3600 psi and 4500 psi
Maximum auxiliary pump pressure	..... 500 psi
Maximum input speed	..... 3600 rpm
Maximum input horsepower @ 3600 rpm	..... 12 hp and 18 hp
Shaft rotation	..... right hand or left hand (see model code)
Weight	..... 30 lbs.



*Vickers experience is industry-wide, Our service is world-wide.*

Whatever your application, whether it runs on wheels, tracks or skis, Vickers has the depth of experience needed to analyze your power transmission needs and develop a low cost reliable hydraulic

system that will make your vehicle more attractive to your market. And, wherever your product goes, its Vickers components will always be near one of the Vickers service centers around the world.

For complete list of addresses, write for Address Sheet 5700L

# VICKERS

Division of Sperry Rand Corporation  
Mobile Hydraulics Division  
Troy, Michigan 48084