CATERPILLAR®

TH35-E81 Transmission with Integral Drop Box

Petroleum

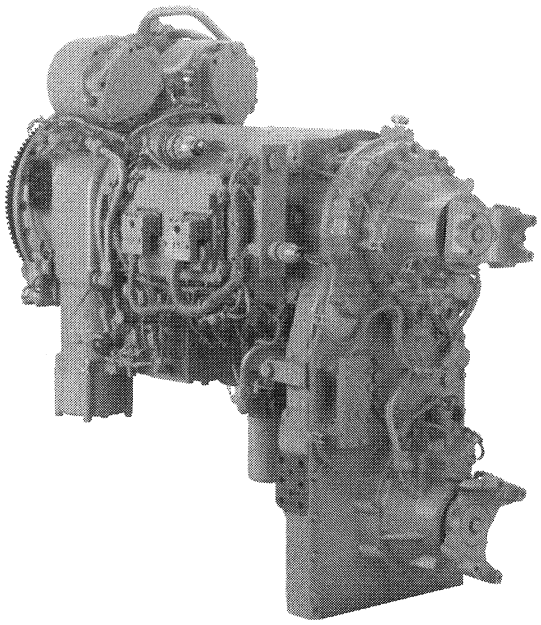


Image shown may not reflect actual transmission

SPECIFICATIONS

Gross Input Power — hp (kW) 550 (410)
Gross Input Torque —
lb-ft (N•m) 1650 (2237)
Maximum Turbine Torque —
lb-ft (N•m) 2430 (3295)
Maximum Output Torque — lb-ft (N•m)
Top Output 13,645 (18,500)
Bottom Output 8,482 (11,500)
Rated Input Speed — rpm 2100
Maximum Input Speed — rpm..... 2500
Weight, Dry (approx) — lb (kg)
Two-Wheel-Drive Model 2975 (1350)
Four-Wheel-Drive Model..... 3047 (1382)
Gears
Type ..... Straight, Spur Planetary
Forward/Reverse..... 8F/1R
Transmission Speed Ratios

Gear	Ratio
1F	5.73
2F	3.57
3F	2.72
4F	1.95
5F	1.43
6F	1.00
7F	0.74
8F	0.63
1R	4.46
Overall	9.10

STANDARD EQUIPMENT

Electronic Control Unit (ECU)
Electronic data link, SAE J1939, SAE J1587
Electrical system 12V or 24V
Integral torque converter

CAT® ENGINES FOR OPTIMIZED POWERTRAIN

C11 ACERT™, C13 ACERT, C15 ACERT (Tier 3)
C-10, C-15 (Tier 2)

Note: See Petroleum Transmissions Approved Applications Guide REHS4553 for more information.

TRANSMISSION ROTATION

Input rotation — Counterclockwise
Output rotation — Forward, same as input
Reverse, opposite input

TORQUE CONVERTER

Series — TC40631-ESLFT
Stall torque ratio — 2.46

CLUTCHES

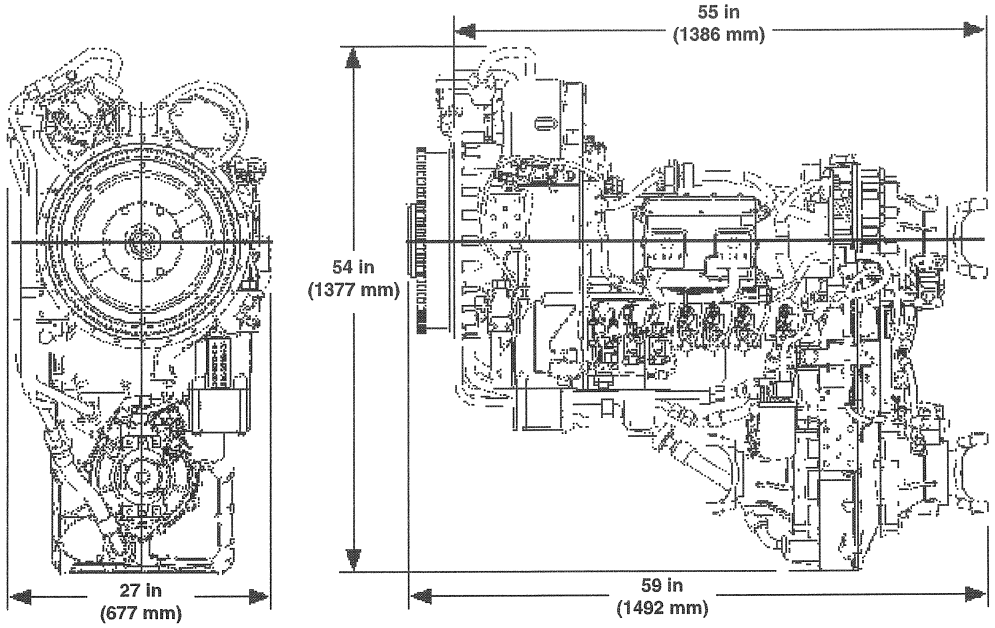
Clutches — electro-hydraulic fully modulated, oil cooled, multidisc
Clutch modulation control — Cat® Electronic Clutch Pressure Control (ECPC)

INSTALLATION CONNECTIONS

1 cooler
1 electrical

DIMENSIONS

Four-Wheel-Drive Shown



Transmission Dimensions		
Length of Drive Train	55 in.	1386 mm
Overall Length	59 in.	1492 mm
Width	27 in.	677 mm
Height	54 in.	1377 mm
Weight, dry (approx)	3047 lb.	1382 kg

OIL SYSTEM

Cat Transmission/Drive Train Oil-4 (TDTO) or equivalent
Oil Temperatures
Continuous — 195°F (90°C)
Maximum Operating — 210°F (99°C)
Hydraulic Fill Capacity — 13 gal (50 L) subject to cooler size, lines, and installation — initial fill may be greater
Filter Type — 6 micron paper, cartridge integral filter

MOUNTINGS

Structural application subject to Caterpillar approval
Input connection (flywheel) — SAE #1 dry flywheel housing with flexplate converter drive
Output connection (yoke) — 1810 output yoke, 1810 companion flange

POWER TAKE OFF (PUMP AUXILIARY DRIVE)

Description — 2 x PTOs integral live drive, 1:1 ratio from the input shaft, pump drive rotates same as transmission input
Location & Rated Power —
11:00 200 hp/149 kW and 1:00 200 hp/149 kW
Total 220 hp/164 kW
Note: Locations are as viewed from transmission output.
Mountings — SAE C mounting pads facing output (2)
SAE B mounting pads facing input (2)

INTEGRAL DROP BOX

Drive Ratio — 1:1 to selected outputs
Drop Height — 24"/610 mm from transmission centerline
Control System — Electronically controlled output engagement/disengagement
Output Connections (yokes) —
2WD model: 1 additional 1810 output yoke or 1810 companion flange
4WD model: 2 additional 1810 output yokes or 1810 companion flanges
Filtration — Additional spin-on filter (6 micron)