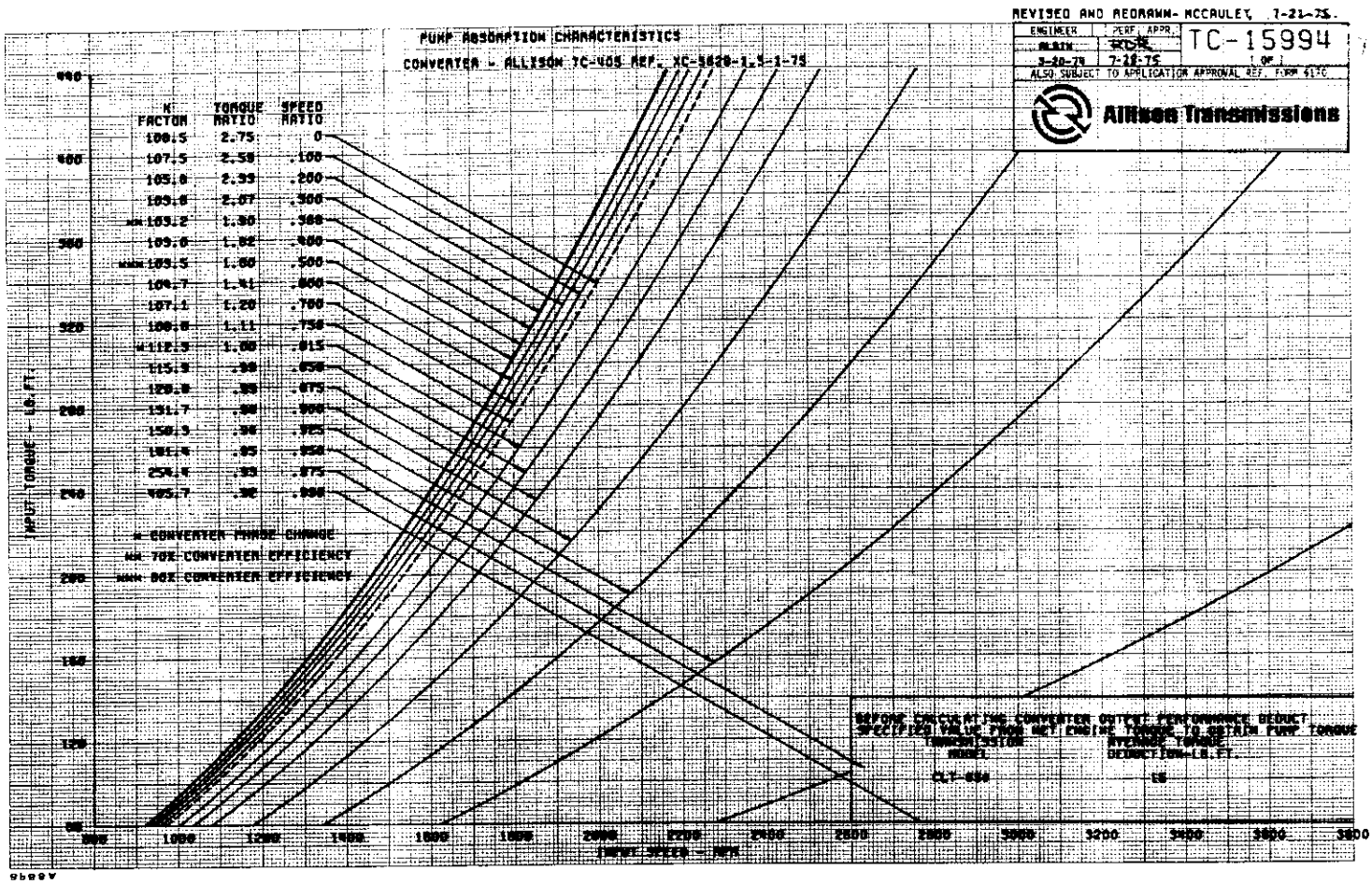
CONVERTER MATCH CHART MODEL NO. TC-405



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.75					
0.100	2.59					
0.200	2.33					
0.300	2.07					
**0.368	1.90					
0.400	1.82					
***0.500	1.60					
0.600	1.41					
0.700	1.20					
0.750	1.11					
*0.815	1.00					
0.850	0.99					
0.875	0.99					
0.900	0.98					
0.925	0.96					
0.950	0.95					
0.975	0.93					
0.990	0.92					
*Phase change						
**(70%)						
***(80%)						

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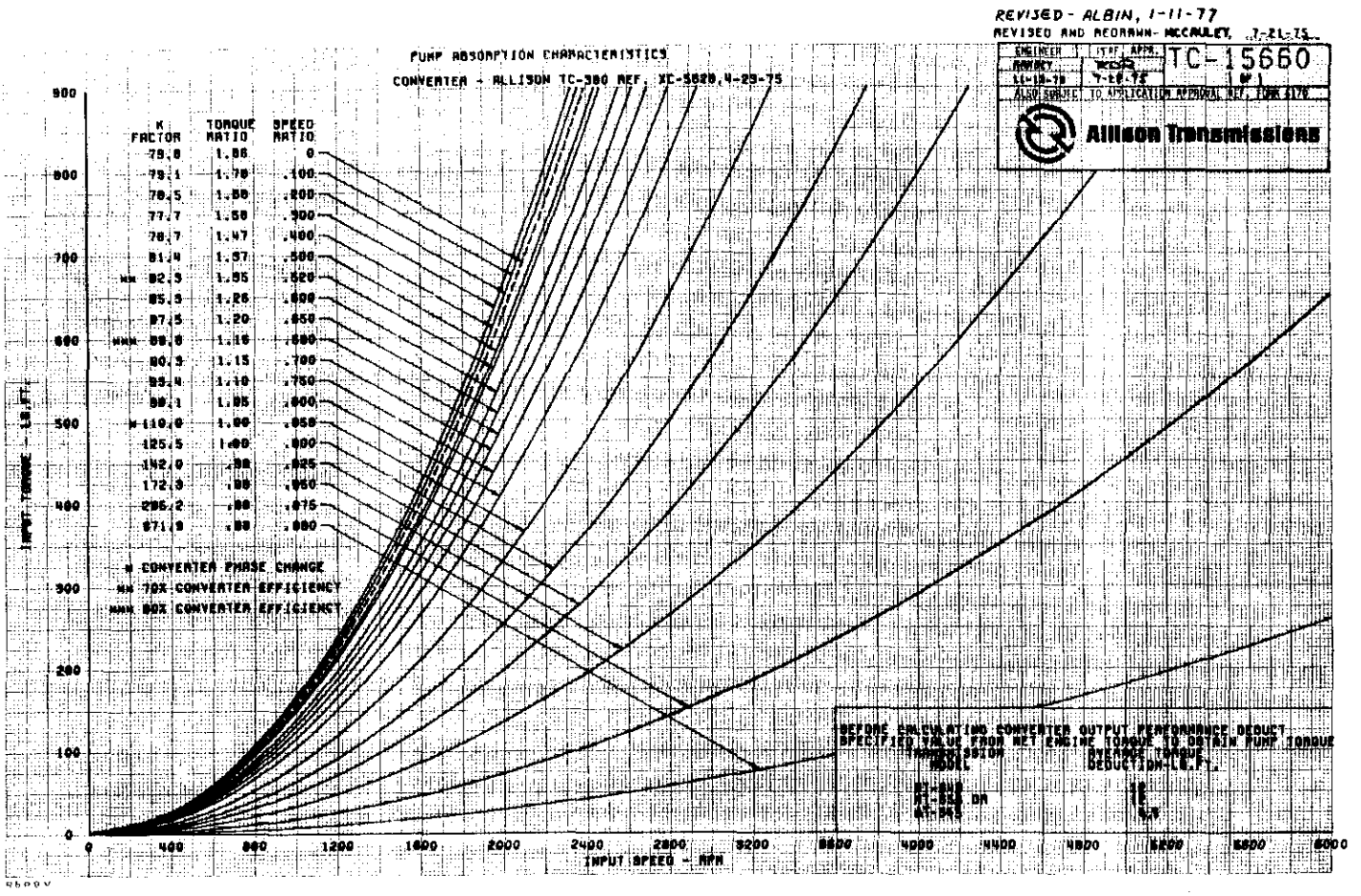
Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TC-380



TC380

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

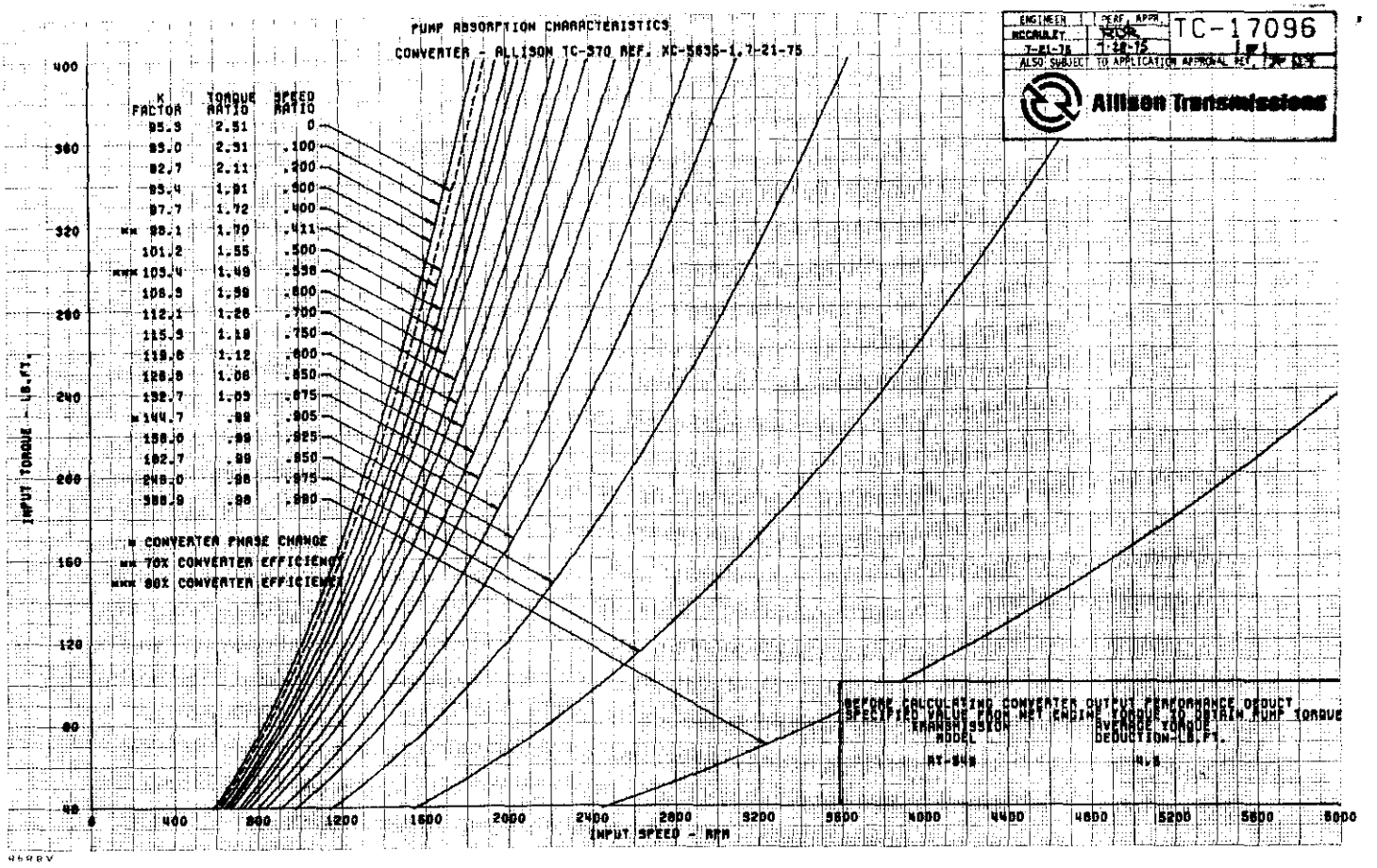
The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	1.86					
0.100	1.78					
0.200	1.68					
0.300	1.58					
0.400	1.47					
0.500	1.37					
**0.520	1.35					
0.600	1.26					
0.650	1.20					
***0.690	1.16					
0.700	1.15					
0.750	1.10					
0.800	1.05					
*0.858	1.00					
0.900	1.00					
0.925	0.99					
0.950	0.99					
0.975	0.98					
0.990	0.98					
*Phase change						
**(70%)						
***(80%)						

SA-1473A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

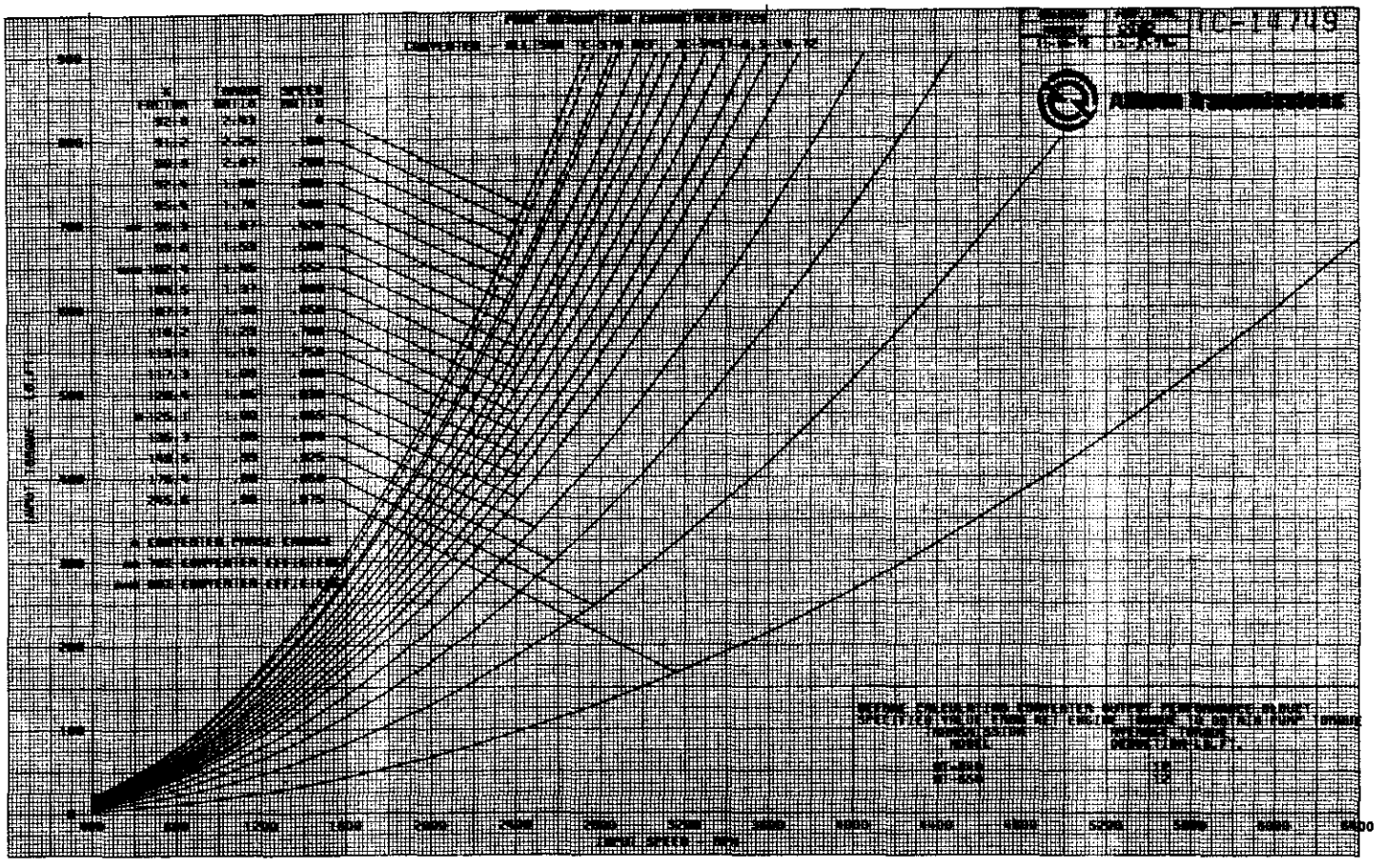
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	2.51					
0.100	2.31					
0.200	2.11					
0.300	1.91					
0.400	1.72					
**0.411	1.70					
0.500	1.55					
***0.538	1.49					
0.600	1.39					
0.700	1.26					
0.750	1.19					
0.800	1.12					
0.850	1.06					
0.875	1.03					
*0.905	0.99					
0.925	0.99					
0.950	0.99					
0.975	0.98					
0.990	0.98					
*Phase change						
**(70%)						
***(80%)						

SA-1595 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TC-370



TC-370

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.43					
0.100	2.25					
0.200	2.07					
0.300	1.88					
0.400	1.70					
0.420	1.67					
0.500	1.53					
0.552	1.45					
0.600	1.37					
0.650	1.30					
0.700	1.23					
0.750	1.16					
0.800	1.09					
0.830	1.05					
0.865	1.00					
0.900	0.99					
0.925	0.99					
0.950	0.98					
0.975	0.98					
*Phase change						
**(70%)						
***(80%)						

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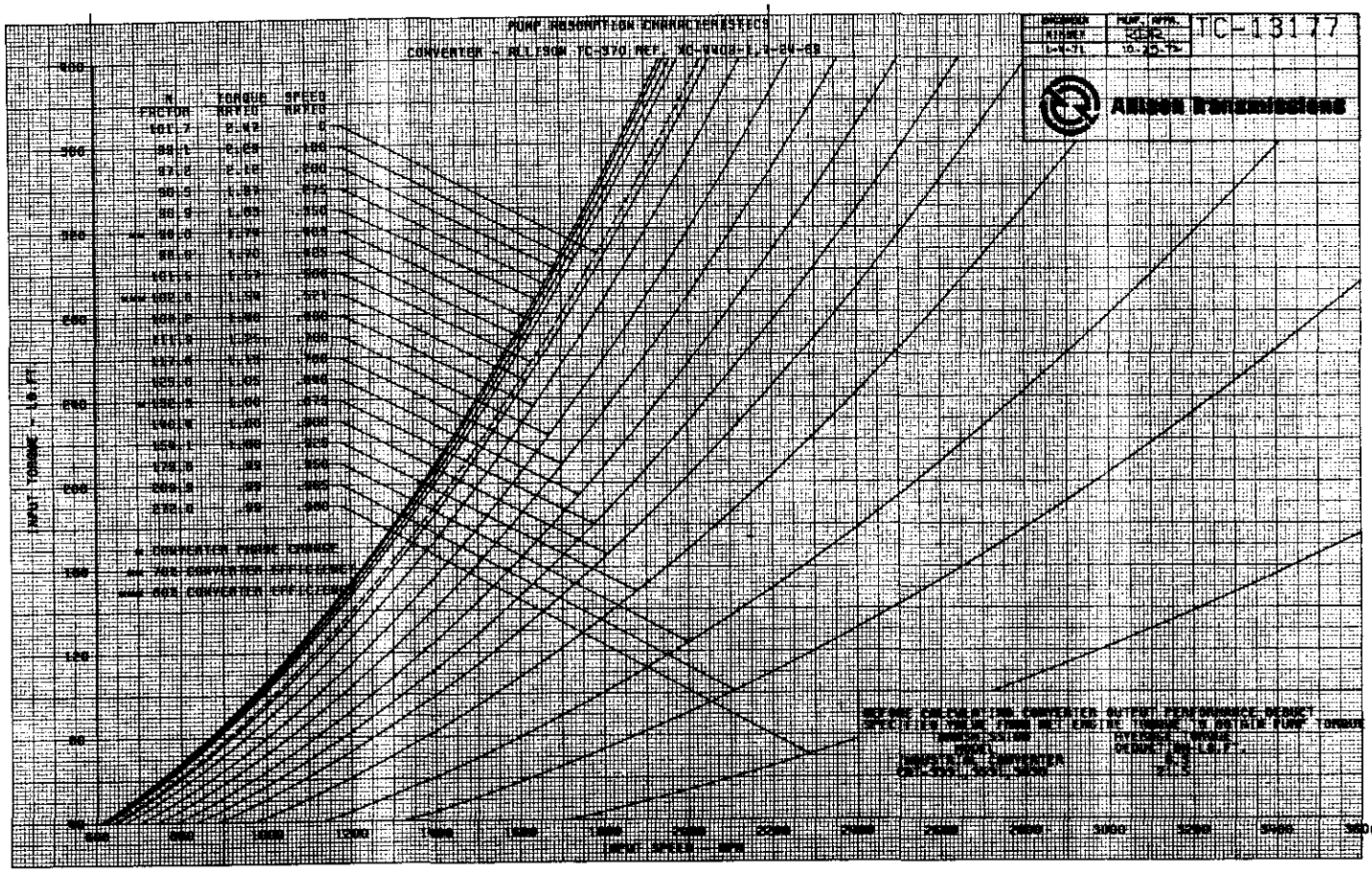
Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TC-370



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

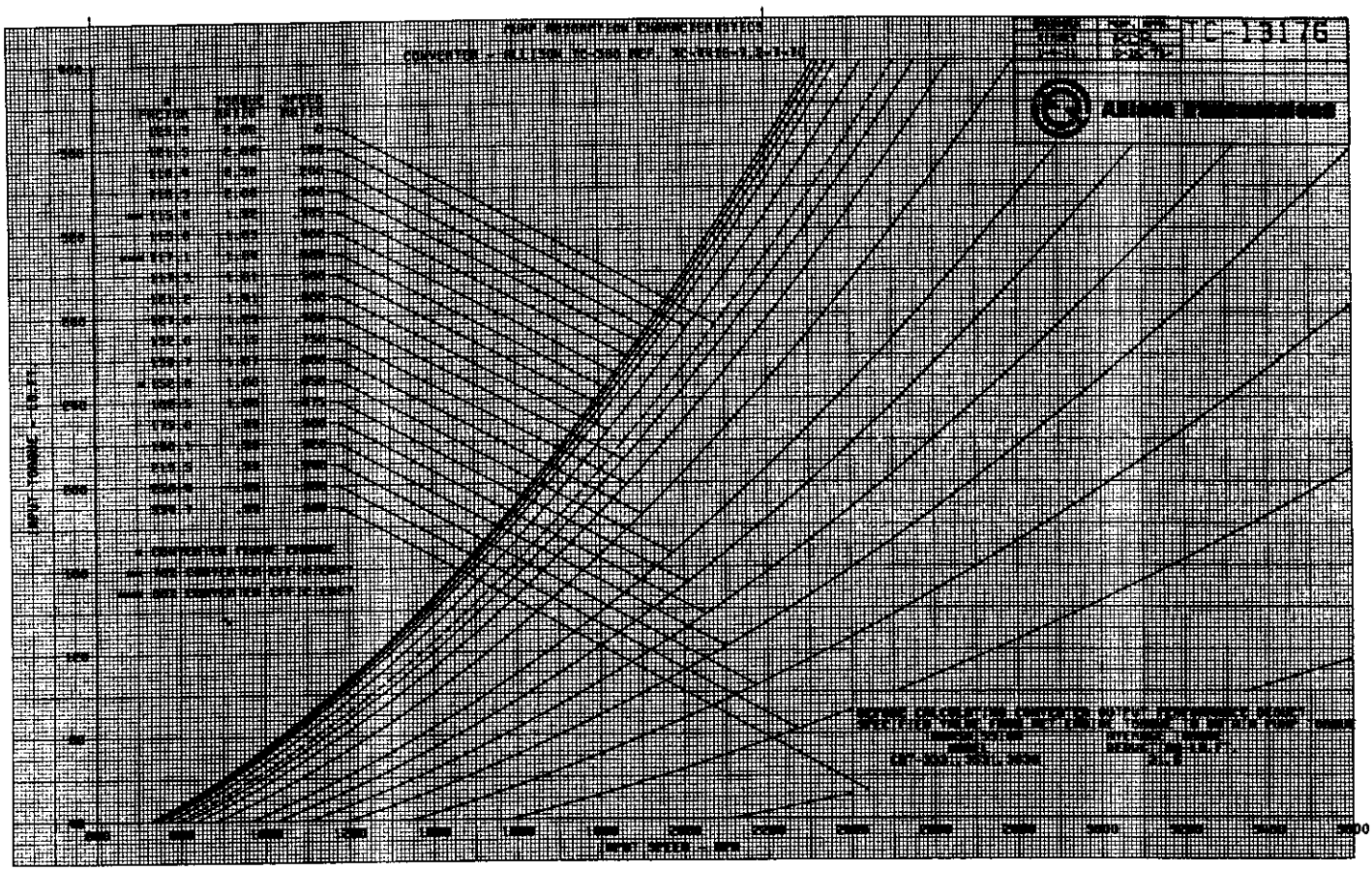
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.47					
0.100	2.29					
0.200	2.12					
0.275	1.97					
0.350	1.83					
**0.403	1.74					
0.425	1.70					
0.500	1.57					
***0.521	1.54					
0.600	1.40					
0.700	1.25					
0.780	1.13					
0.840	1.05					
*0.875	1.00					
0.900	1.00					
0.925	1.00					
0.950	0.99					
0.965	0.99					
0.980	0.99					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

SA-1175A 11/72

CONVERTER MATCH CHART MODEL NO. TC-300



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

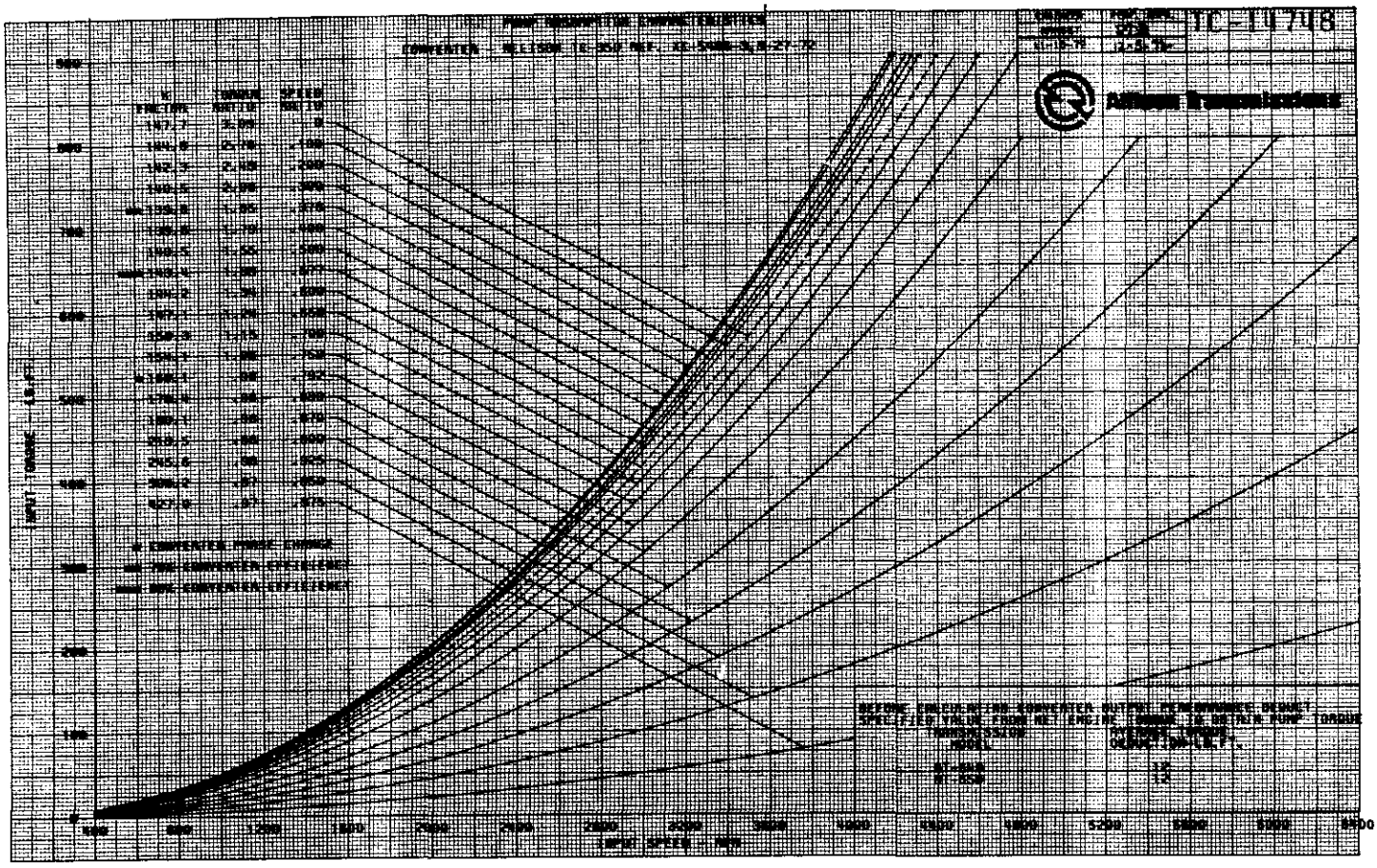
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.86					
0.100	2.62					
0.200	2.36					
0.300	2.08					
**0.365	1.92					
0.400	1.83					
***0.489	1.64					
0.500	1.61					
0.600	1.41					
0.700	1.23					
0.750	1.15					
0.800	1.07					
*0.850	1.00					
0.875	1.00					
0.900	0.99					
0.920	0.99					
0.940	0.99					
0.960	0.99					
0.980	0.99					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

SA-1174A 11/72

CONVERTER MATCH CHART MODEL NO. TC-350



TC-350

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

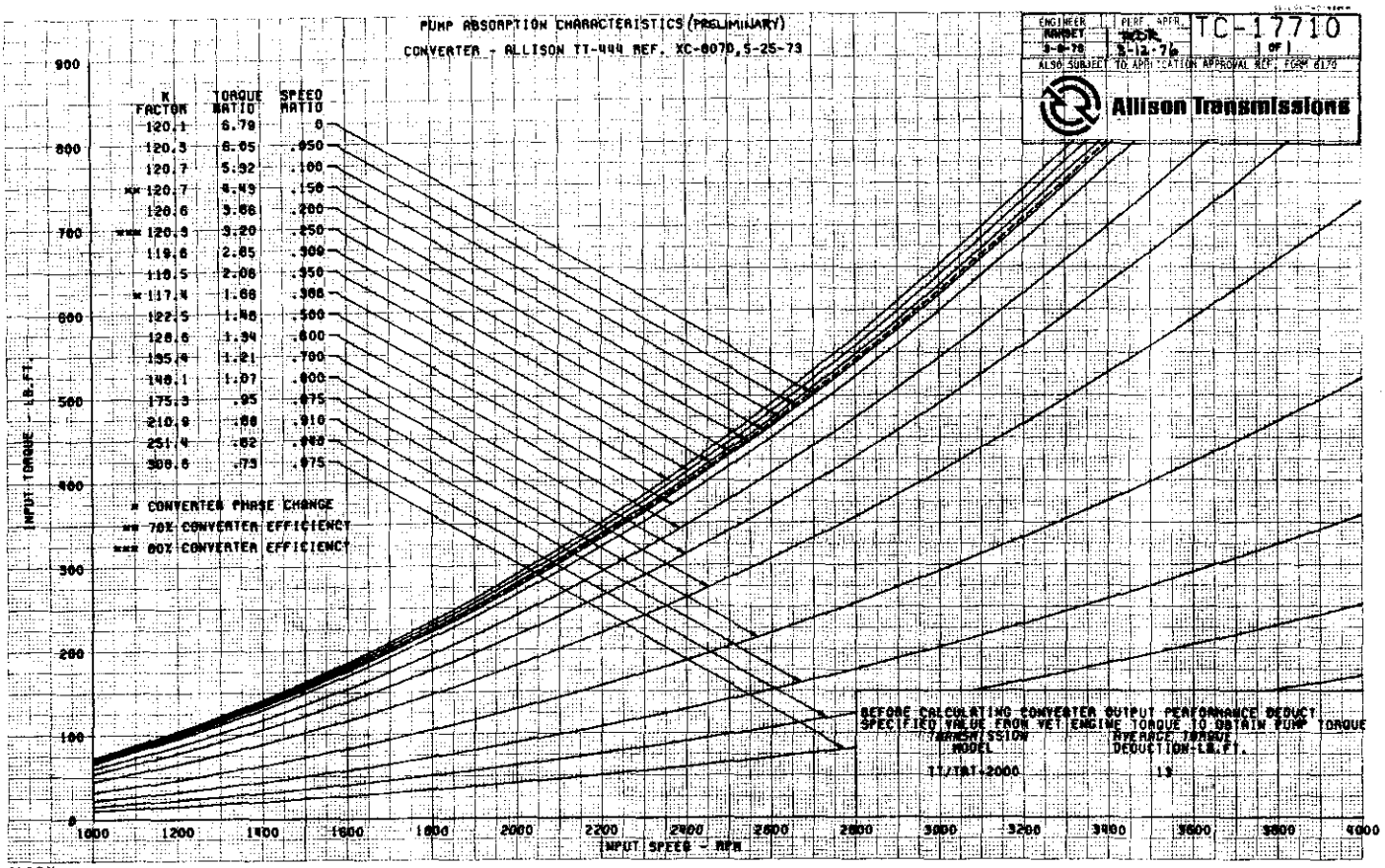
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
Stall	3.09					
0.100	2.78					
0.200	2.43					
0.300	2.08					
0.378	1.85					
0.400	1.79					
0.500	1.55					
0.577	1.39					
0.600	1.34					
0.650	1.24					
0.700	1.15					
0.750	1.06					
0.792	0.98					
0.830	0.98					
0.870	0.98					
0.900	0.98					
0.925	0.98					
0.950	0.97					
0.975	0.97					
*Phase change						
**(70%)						
***(80%)						

SA-1368 4/73

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-444



TT444

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

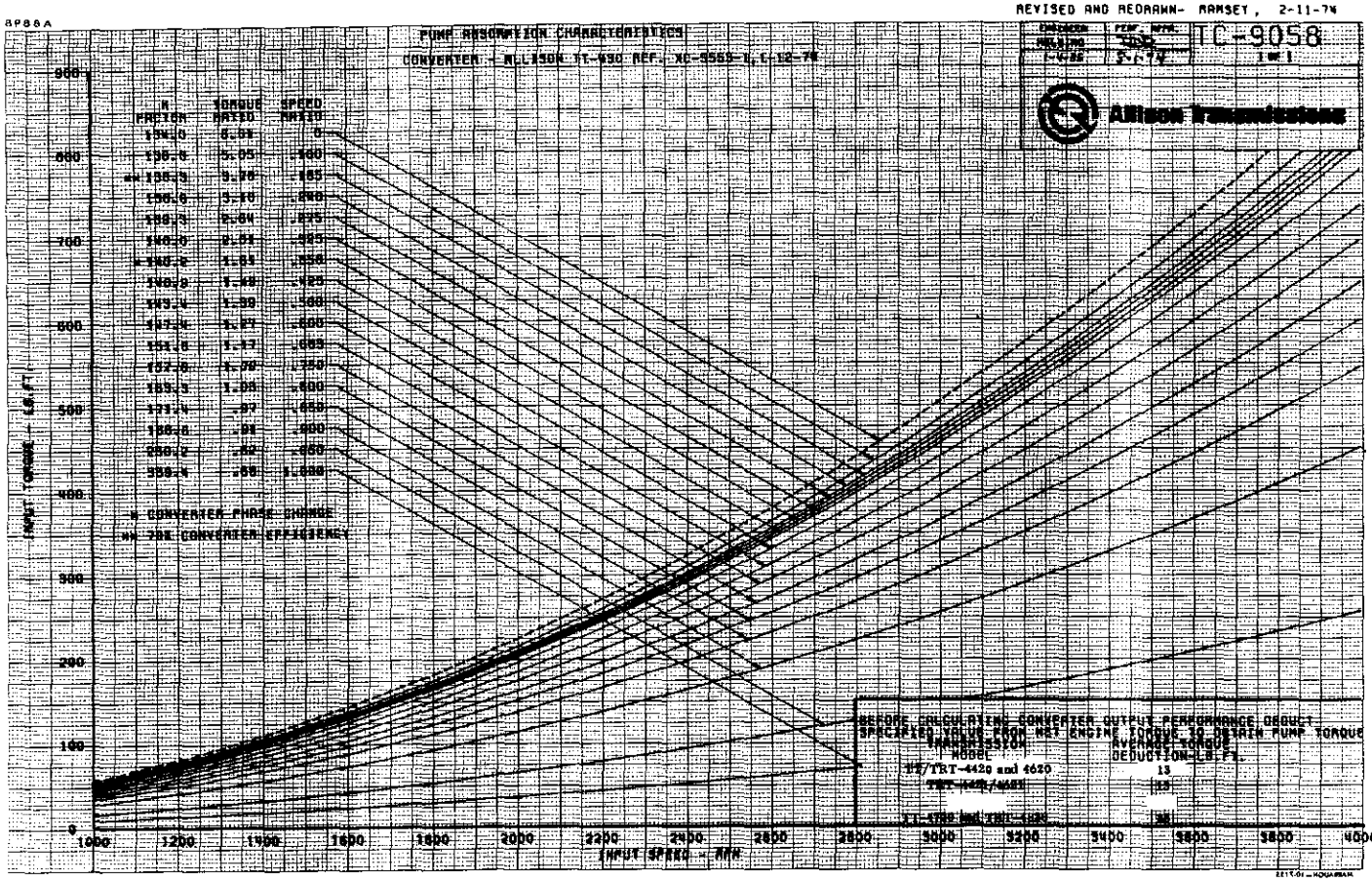
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	6.79					
0.050	6.05					
0.100	5.32					
**0.158	4.43					
0.200	3.86					
***0.250	3.20					
0.300	2.65					
0.350	2.08					
*0.388	1.66					
0.500	1.48					
0.600	1.34					
0.700	1.21					
0.800	1.07					
0.875	0.95					
0.910	0.88					
0.940	0.82					
0.975	0.73					
*Phase change						
**(70%)						
***(80%)						

SA-1599 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-430



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

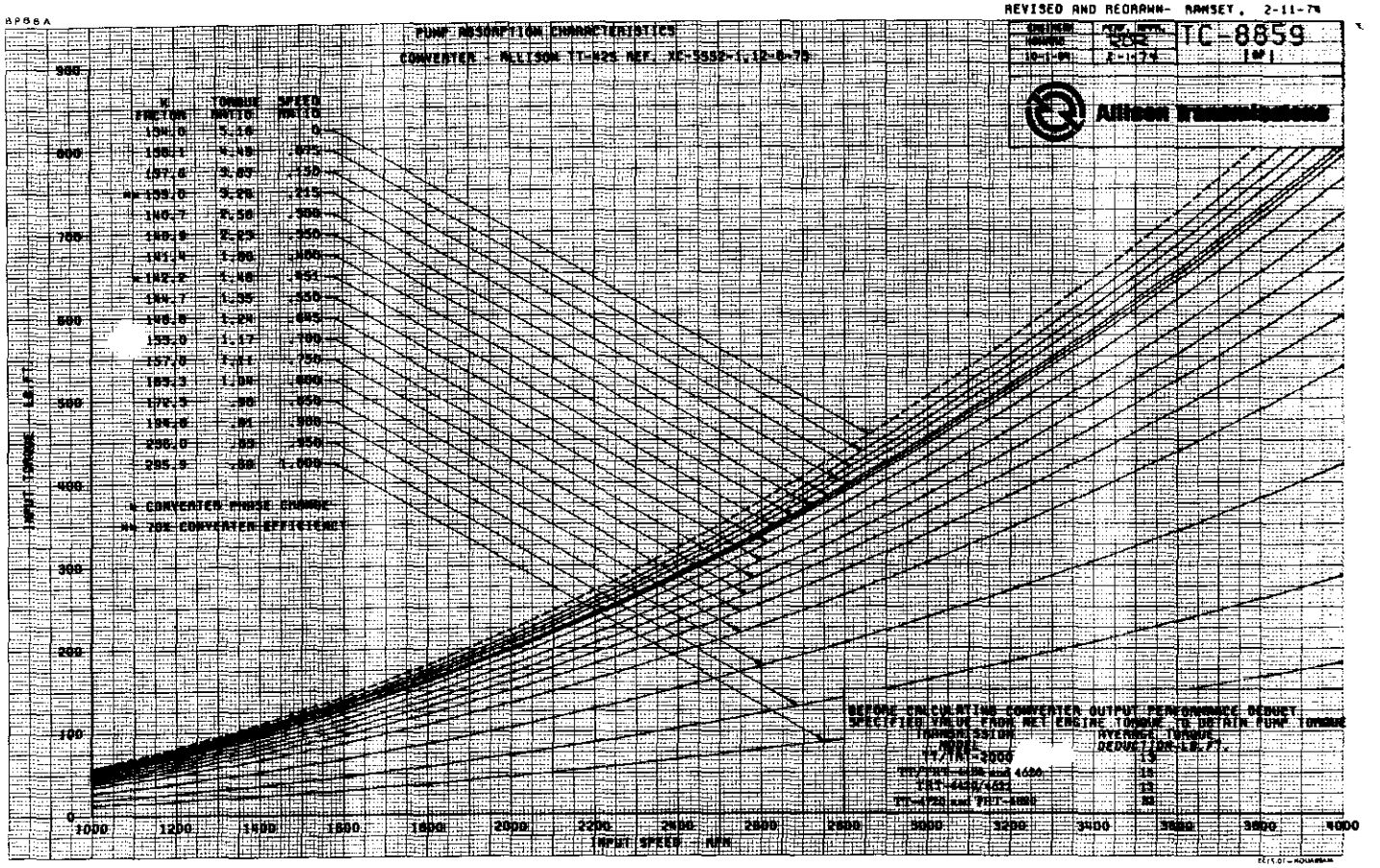
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
0	6.61					
0.100	5.05					
**0.185	3.78					
0.240	3.10					
0.275	2.64					
0.325	2.01					
*0.358	1.61					
0.425	1.49					
0.500	1.39					
0.600	1.27					
0.683	1.17					
0.750	1.09					
0.800	1.03					
0.850	0.97					
0.900	0.91					
0.950	0.82					
1.000	0.68					
*Phase change						
**(70%)						
***(80%)						

SA-1192A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-425



TT-425

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

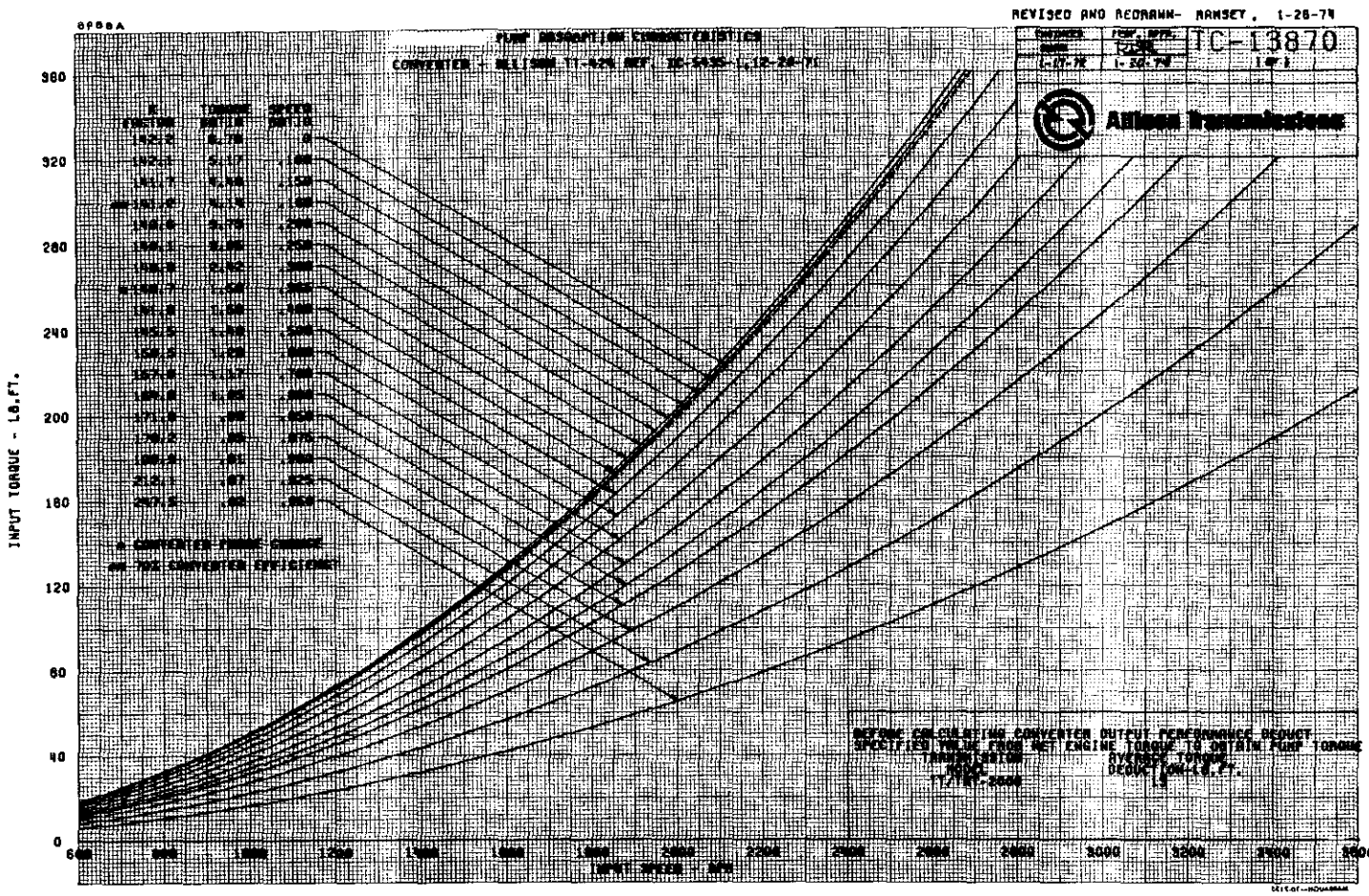
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	5.18					
0.075	4.49					
0.150	3.83					
**0.215	3.26					
0.300	2.58					
0.350	2.23					
0.400	1.86					
*0.451	1.48					
0.550	1.35					
0.645	1.24					
0.700	1.17					
0.750	1.11					
0.800	1.04					
0.850	0.98					
0.900	0.91					
0.950	0.83					
1.000	0.69					
*Phase change						
**(70%)						
***(80%)						

SA-1191B 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-424



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	6.70					
0.100	5.17					
0.150	4.40					
**0.169	4.14					
0.200	3.73					
0.250	3.05					
0.300	2.42					
*0.365	1.58					
0.400	1.53					
0.500	1.40					
0.600	1.29					
0.700	1.17					
0.800	1.05					
0.850	0.98					
0.875	0.95					
0.900	0.91					
0.925	0.87					
0.950	0.82					
*Phase change						
**(70%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

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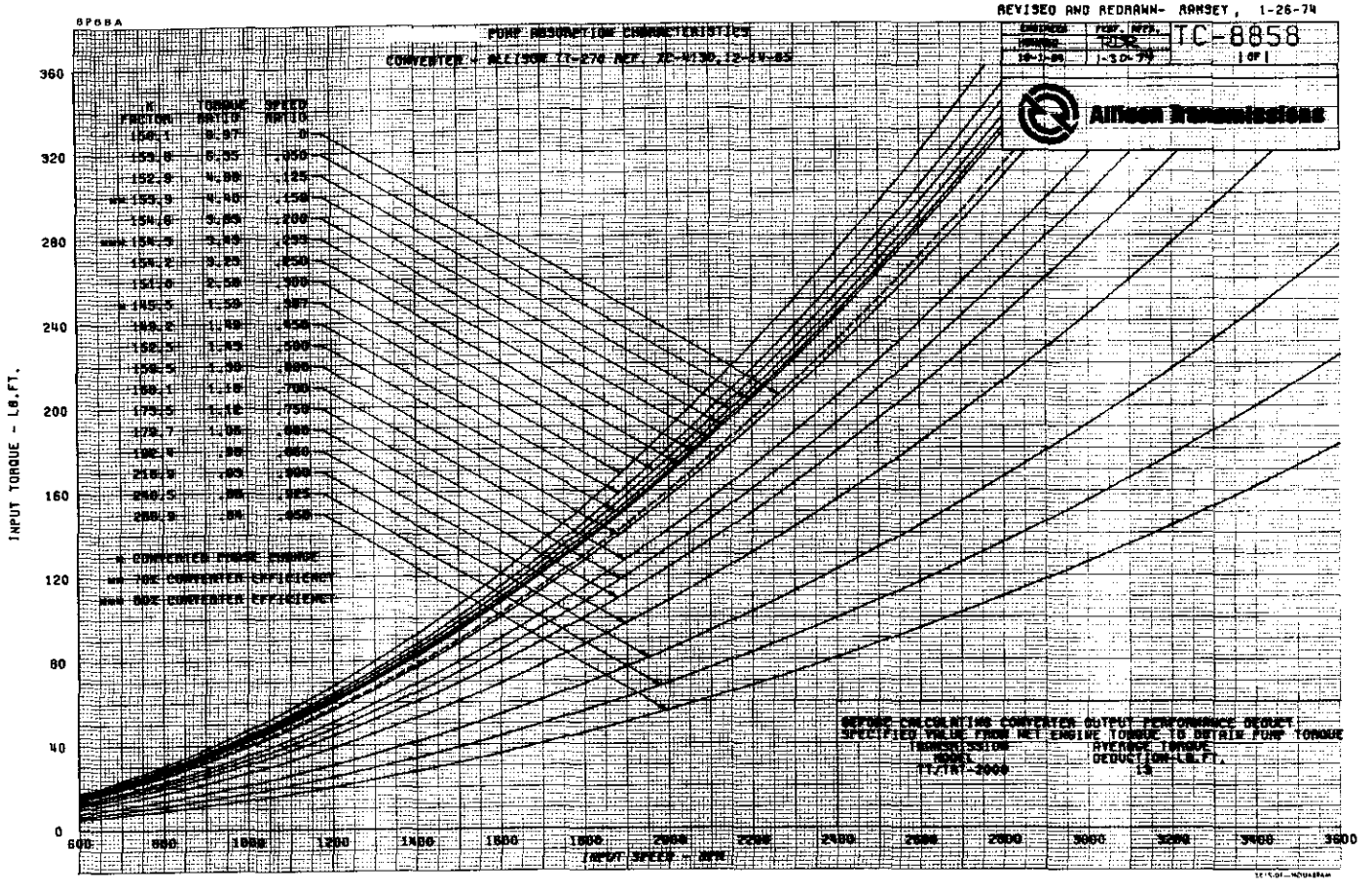
CONVERTER MATCH CHART MODEL NO. TT-270



TT-270

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

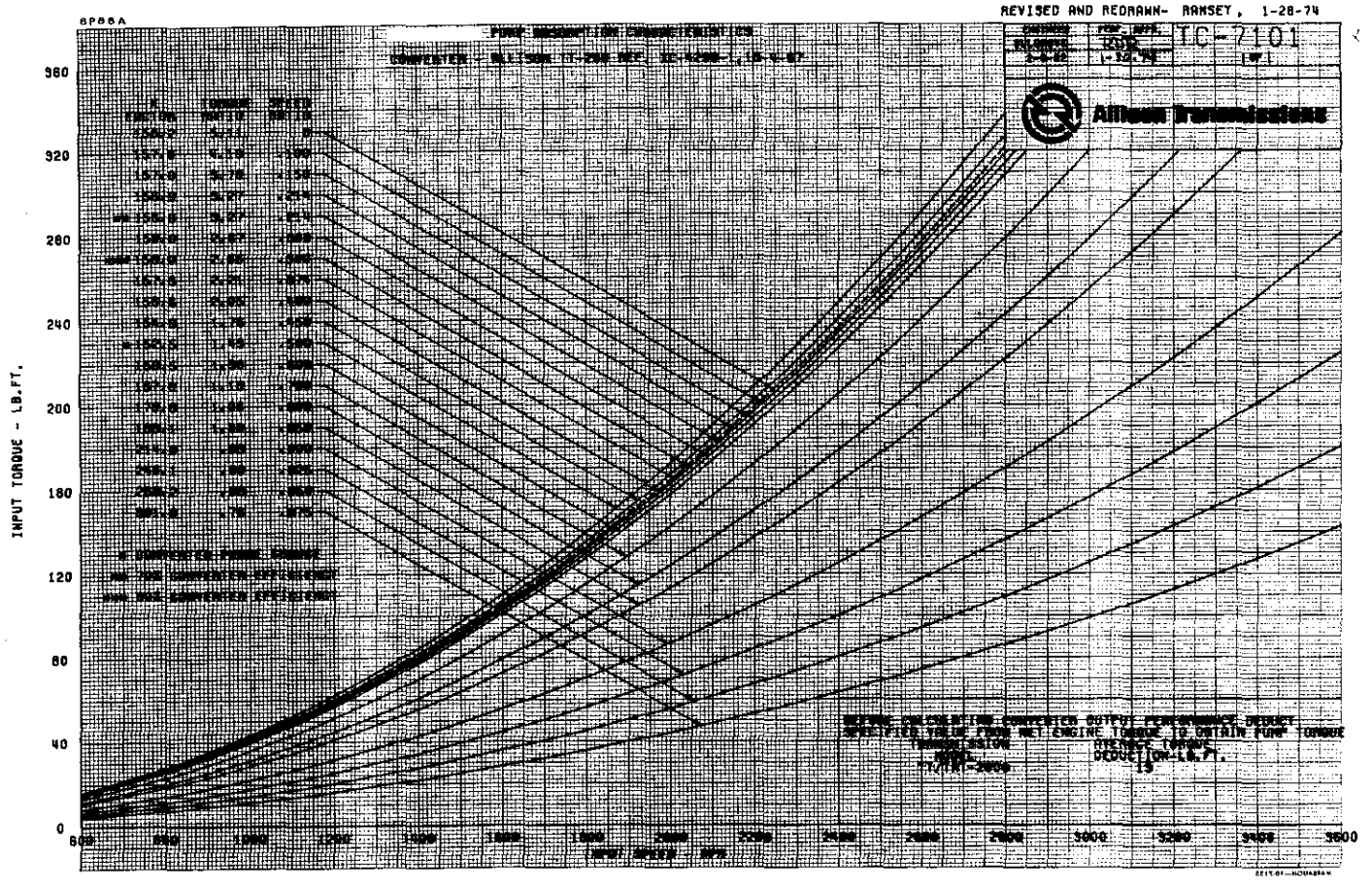
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	6.97					
0.050	6.35					
0.125	4.88					
**0.159	4.40					
0.200	3.83					
***0.233	3.43					
0.250	3.23					
0.300	2.58					
*0.387	1.59					
0.450	1.49					
0.500	1.43					
0.600	1.30					
0.700	1.18					
0.750	1.12					
0.800	1.06					
0.860	0.98					
0.900	0.93					
0.925	0.88					
0.950	0.84					
*Phase change						
**(70%)						
***(80%)						

SA-1190A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-260



TT-260

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

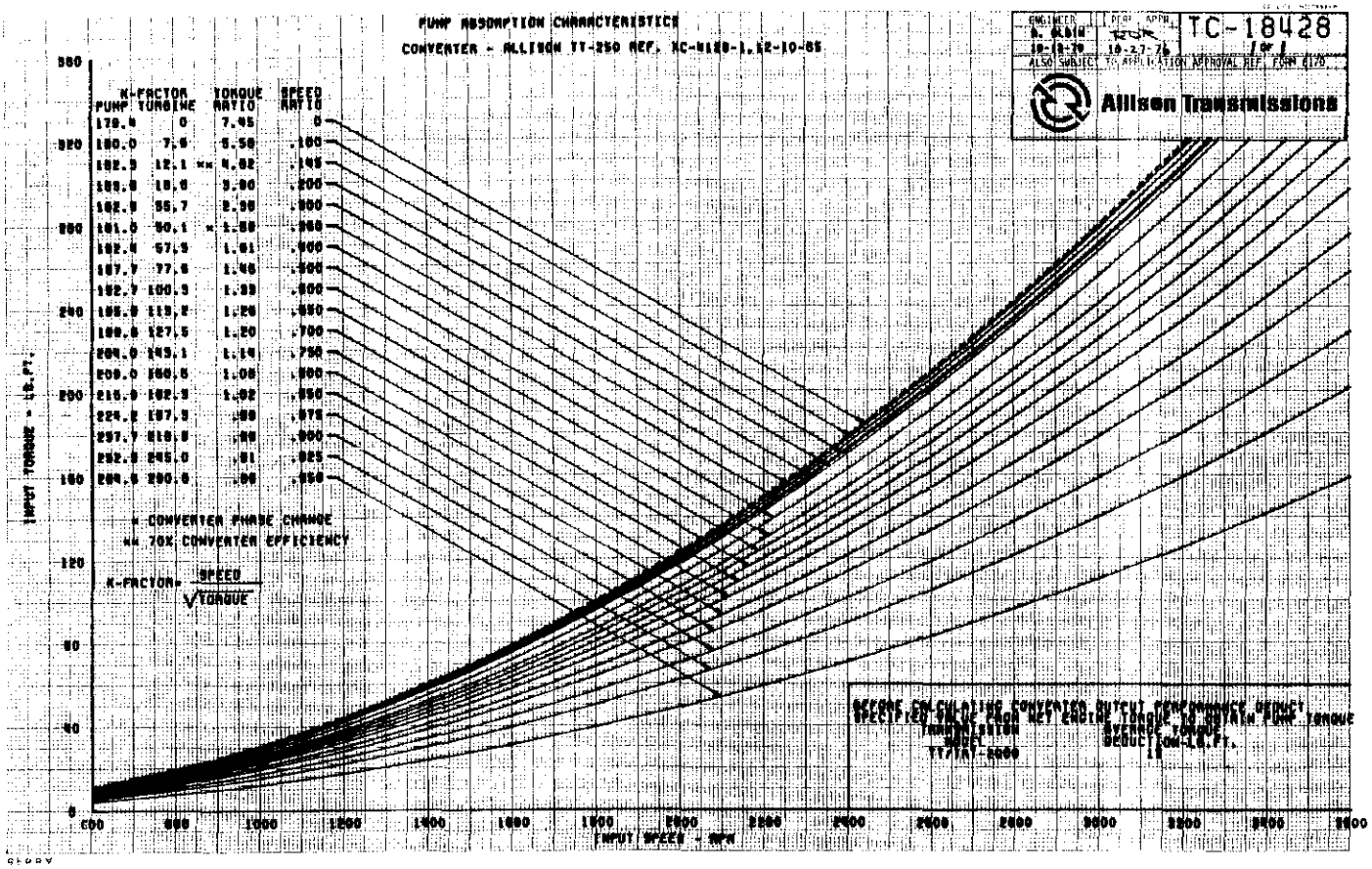
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	5.11					
0.100	4.19					
0.150	3.78					
0.214	3.27					
**0.214	3.27					
0.300	2.67					
***0.300	2.66					
0.374	2.21					
0.400	2.05					
0.450	1.76					
*0.500	1.43					
0.600	1.30					
0.700	1.18					
0.800	1.06					
0.850	1.00					
0.900	0.93					
0.925	0.89					
0.950	0.83					
0.975	0.76					
*Phase change						
**(70%)						
***(80%)						

SA-1189A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-250



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

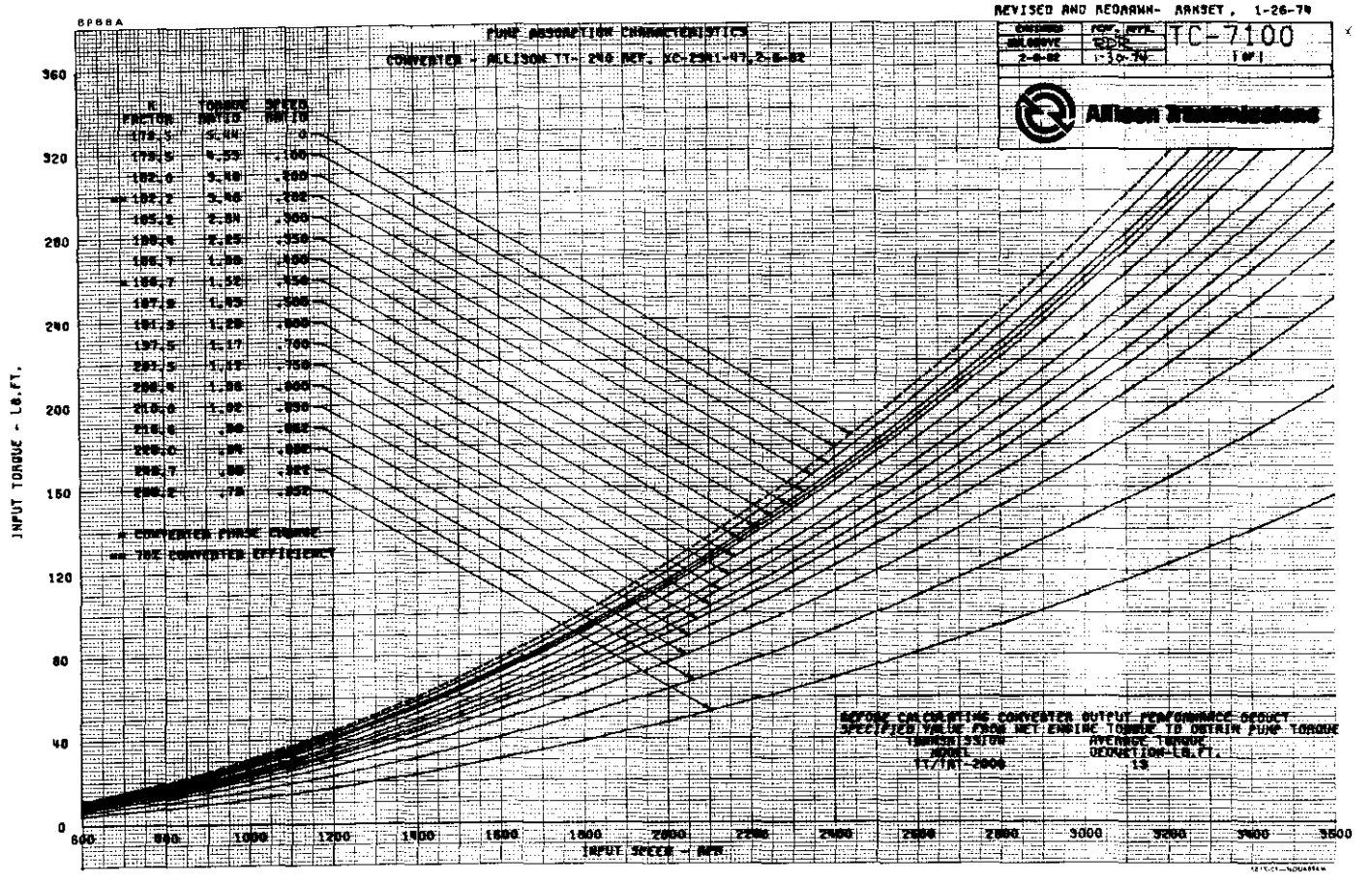
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	7.45					
0.100	5.58					
**0.145	4.82					
0.200	3.90					
0.300	2.36					
*0.360	1.69					
0.400	1.61					
0.500	1.46					
0.600	1.33					
0.650	1.26					
0.700	1.20					
0.750	1.14					
0.800	1.08					
0.850	1.02					
0.875	0.99					
0.900	0.96					
0.925	0.91					
0.950	0.86					
*Phase change						
**(70%)						
***(80%)						

SA-1598 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-240



TT-240

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

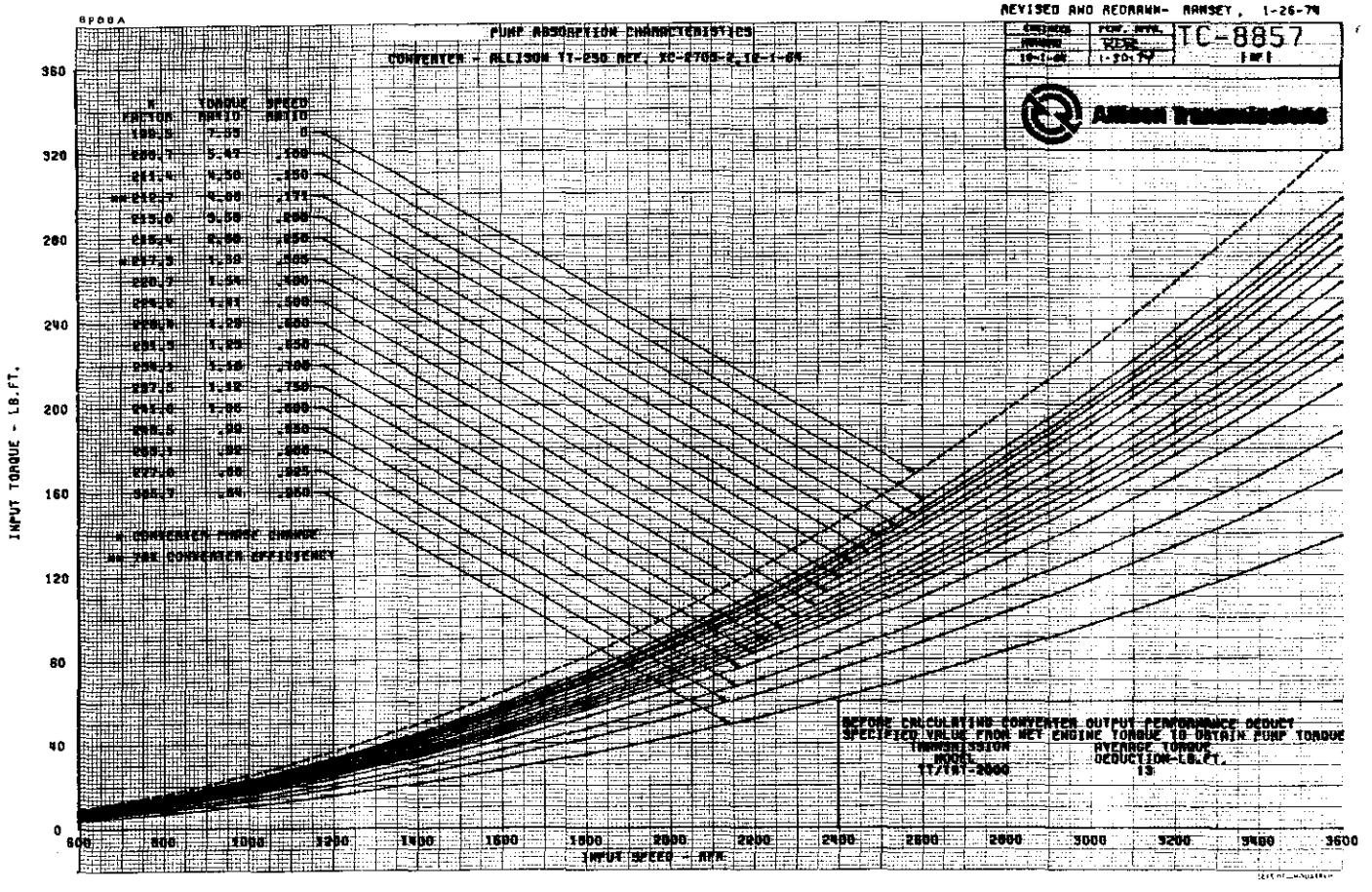
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	5.44					
0.100	4.53					
0.200	3.48					
**0.202	3.46					
0.300	2.64					
0.350	2.25					
0.400	1.88					
*0.450	1.52					
0.500	1.43					
0.600	1.29					
0.700	1.17					
0.750	1.12					
0.800	1.06					
0.830	1.02					
0.862	0.98					
0.892	0.94					
0.922	0.88					
0.952	0.79					
*Phase change						
**(70%)						
***(80%)						

SA-1188A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-230



TT-230

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
0	7.53					
0.100	5.47					
0.150	4.50					
**0.171	4.08					
0.200	3.53					
0.250	2.60					
*0.305	1.69					
0.400	1.54					
0.500	1.41					
0.600	1.29					
0.650	1.23					
0.700	1.18					
0.750	1.12					
0.800	1.06					
0.850	0.99					
0.900	0.92					
0.925	0.88					
0.950	0.84					
*Phase change						
**(70%)						
***(80%)						

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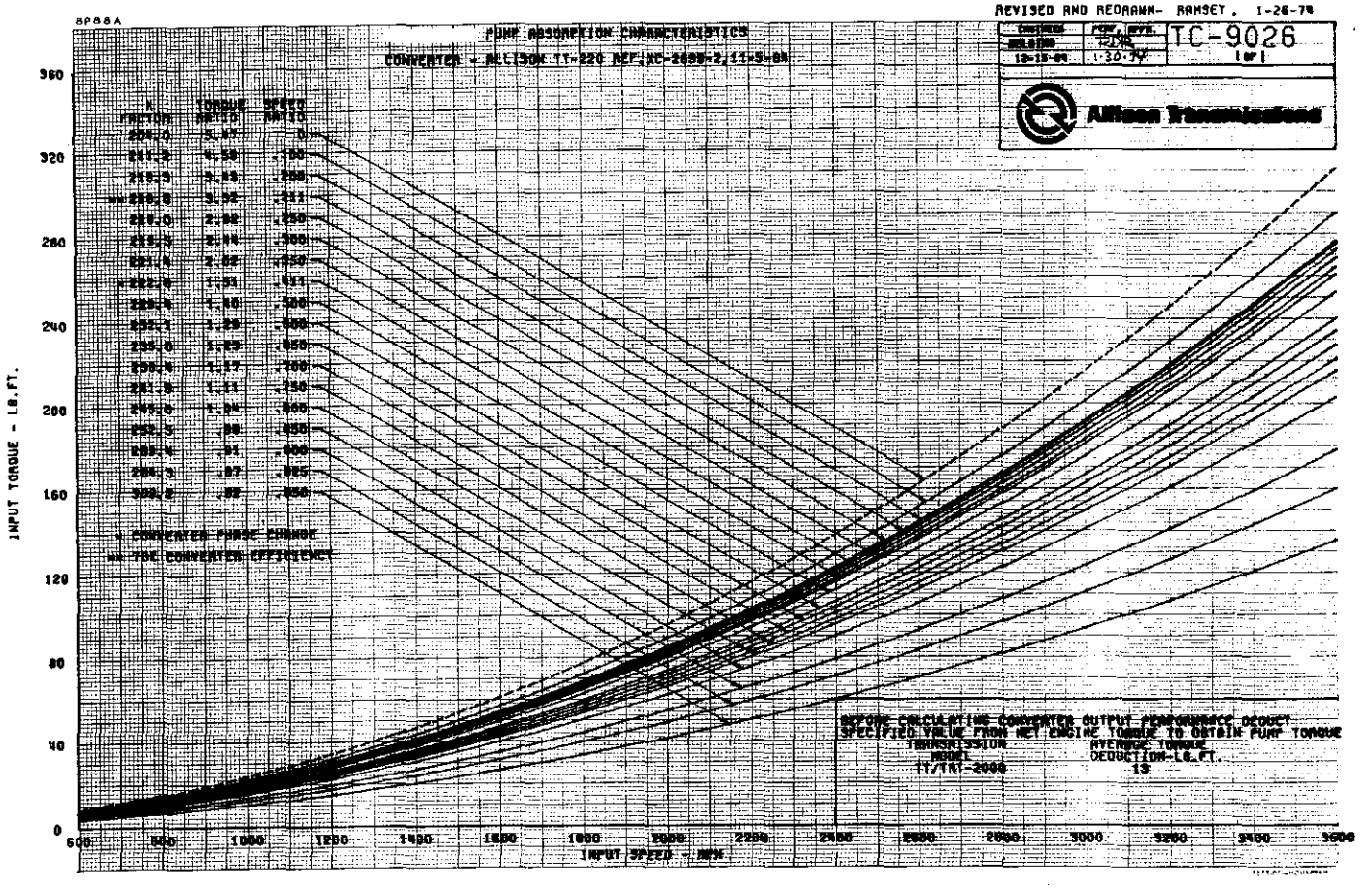
Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-220



TT-220

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	5.47					
0.100	4.59					
0.200	3.43					
**0.211	3.92					
0.250	2.92					
0.300	2.44					
0.350	2.02					
*0.411	1.51					
0.500	1.40					
0.600	1.29					
0.650	1.23					
0.700	1.17					
0.750	1.11					
0.800	1.04					
0.850	0.98					
0.900	0.91					
0.925	0.87					
0.950	0.82					
*Phase change						
**(70%)						
***(80%)						

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Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics do not include the necessary corrections for the converter charging pump; refer to note on absorption chart.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net † torque

† See note on absorption chart.

ENGINE-CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
Stall	3.67					
0.10	3.24					
0.20	2.76					
*0.315	2.22					
0.40	1.91					
0.50	1.62					
**0.56	1.46					
0.70	1.23					
0.775	1.10					
***0.84	0.99					
0.90	0.99					
0.925	0.98					
0.95	0.98					
*(70%)						
**Junction						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

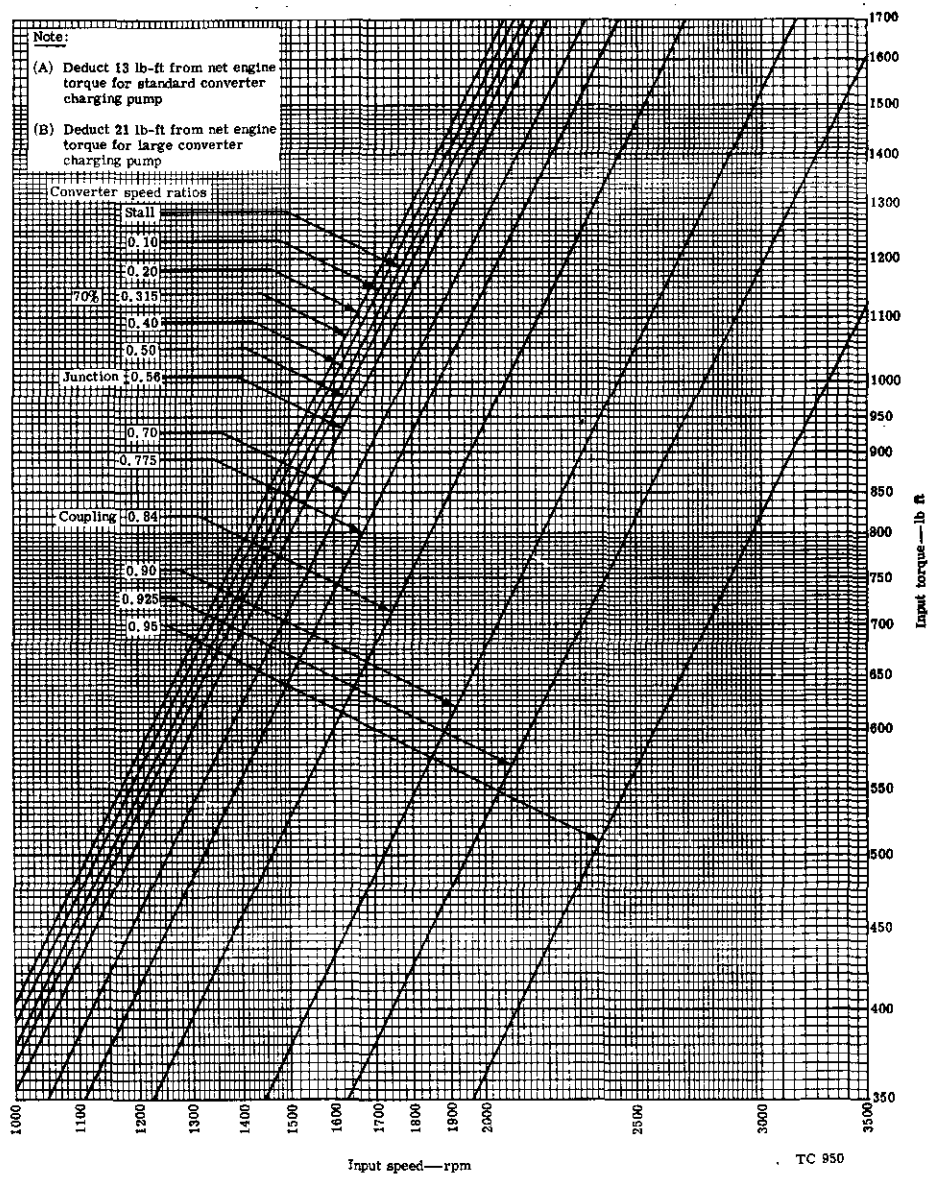
When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC - 950 Converter



TORQMATIC CONVERTER MATCH CHART MODEL TC-950

TORQMATIC CONVERTER MATCH CHART MODEL TC-940

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics do not include the necessary corrections for the converter charging pump; refer to note on absorption chart.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net † torque

† See note on absorption chart

ENGINE-CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.71					
0.10	2.52					
0.20	2.31					
*0.355	1.97					
0.50	1.68					
**0.60	1.46					
0.70	1.27					
0.80	1.08					
***0.847	0.99					
0.875	0.99					
0.90	0.99					
0.925	0.99					
0.95	0.99					
*(70%)						
**Junction						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

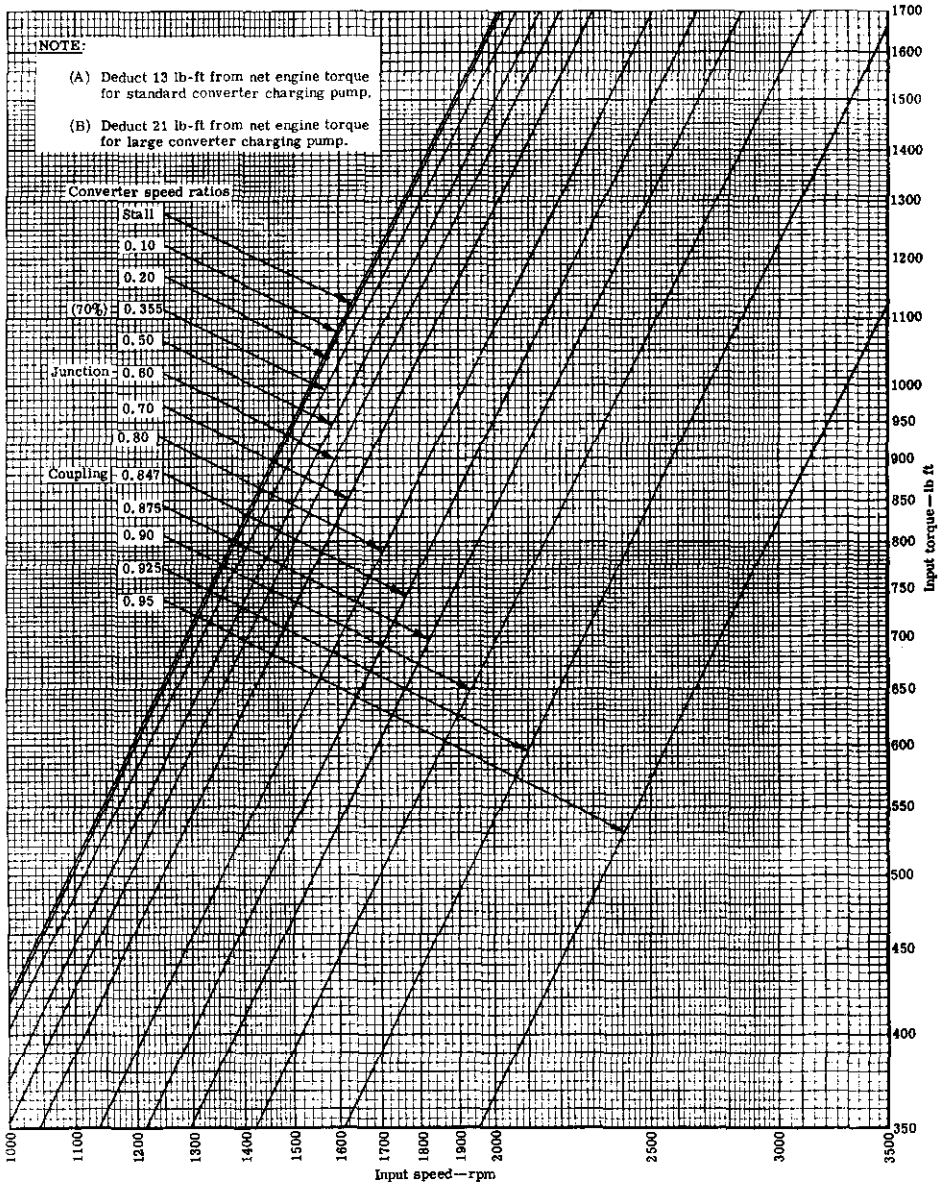
The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

Allison DIVISION OF GENERAL MOTORS, Box 894, Indianapolis, Indiana 46206

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-940 Converter



SA 1184A 1270

Litho U. S. A.

TORQMATIC CONVERTER MATCH CHART MODEL TC-890

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics do not include the necessary corrections for the converter charging pump; refer to note on absorption chart.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net † torque

† See note on absorption chart.

ENGINE-CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
Stall	1.94					
0.10	1.89					
0.20	1.81					
0.30	1.72					
0.40	1.61					
*0.45	1.56					
**0.56	1.43					
0.60	1.38					
0.70	1.25					
0.80	1.13					
0.85	1.07					
***0.92	0.98					
0.95	0.98					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

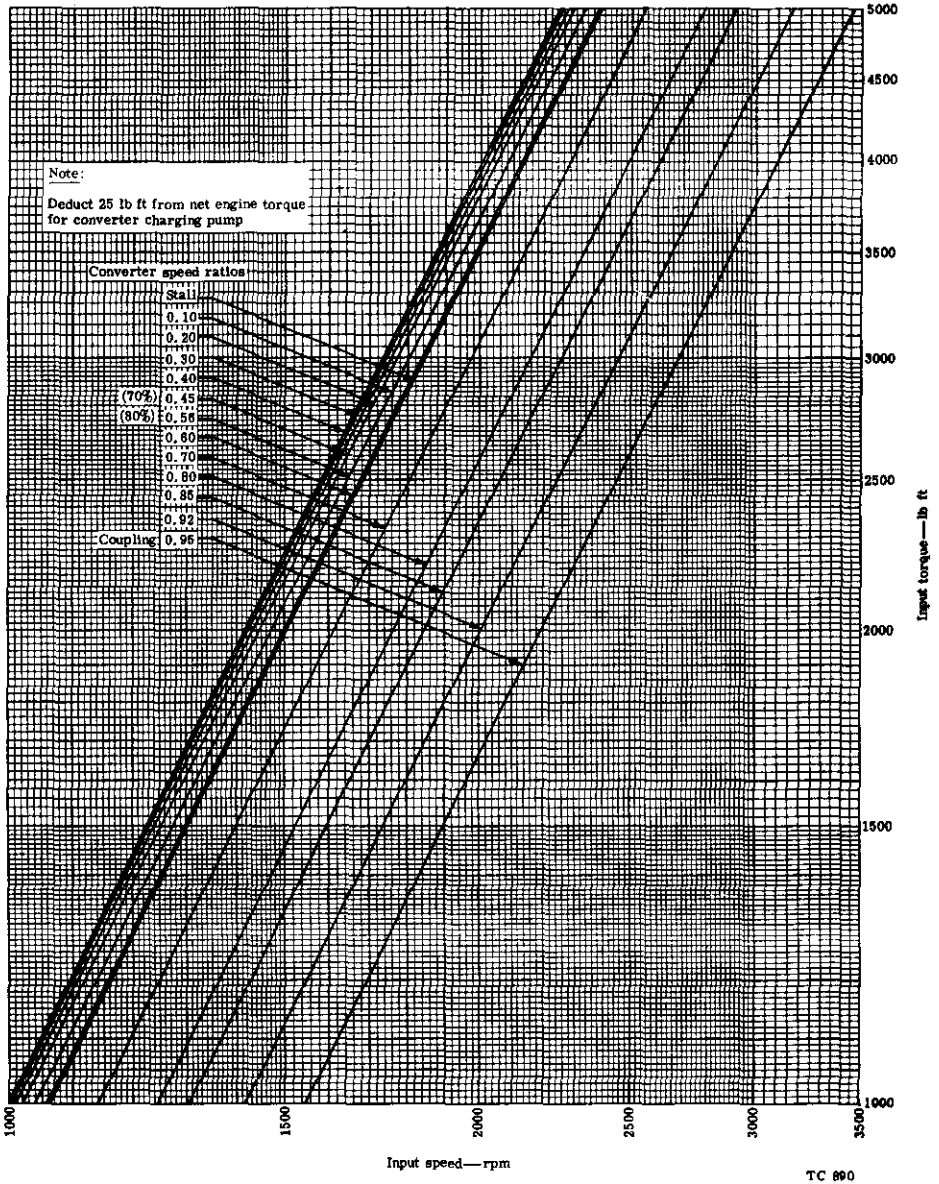
Allison DIVISION OF GENERAL MOTORS, Box 894, Indianapolis, Indiana 46206

SA 1262 770

Litho U. S. A.

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-890 (3 Element) Converter



TORQMATIC CONVERTER MATCH CHART MODEL TC-880

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics do not include the necessary corrections for the converter charging pump; refer to note on absorption chart.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net † torque

† See note on absorption chart.

ENGINE-CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.18					
0.10	2.07					
0.20	1.93					
0.30	1.79					
*0.437	1.60					
**0.572	1.40					
0.70	1.21					
0.80	1.06					
0.85	1.00					
***0.875	0.96					
0.90	0.96					
0.93	0.96					
0.95	0.96					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

Allison DIVISION OF GENERAL MOTORS, Box 894, Indianapolis, Indiana 46206

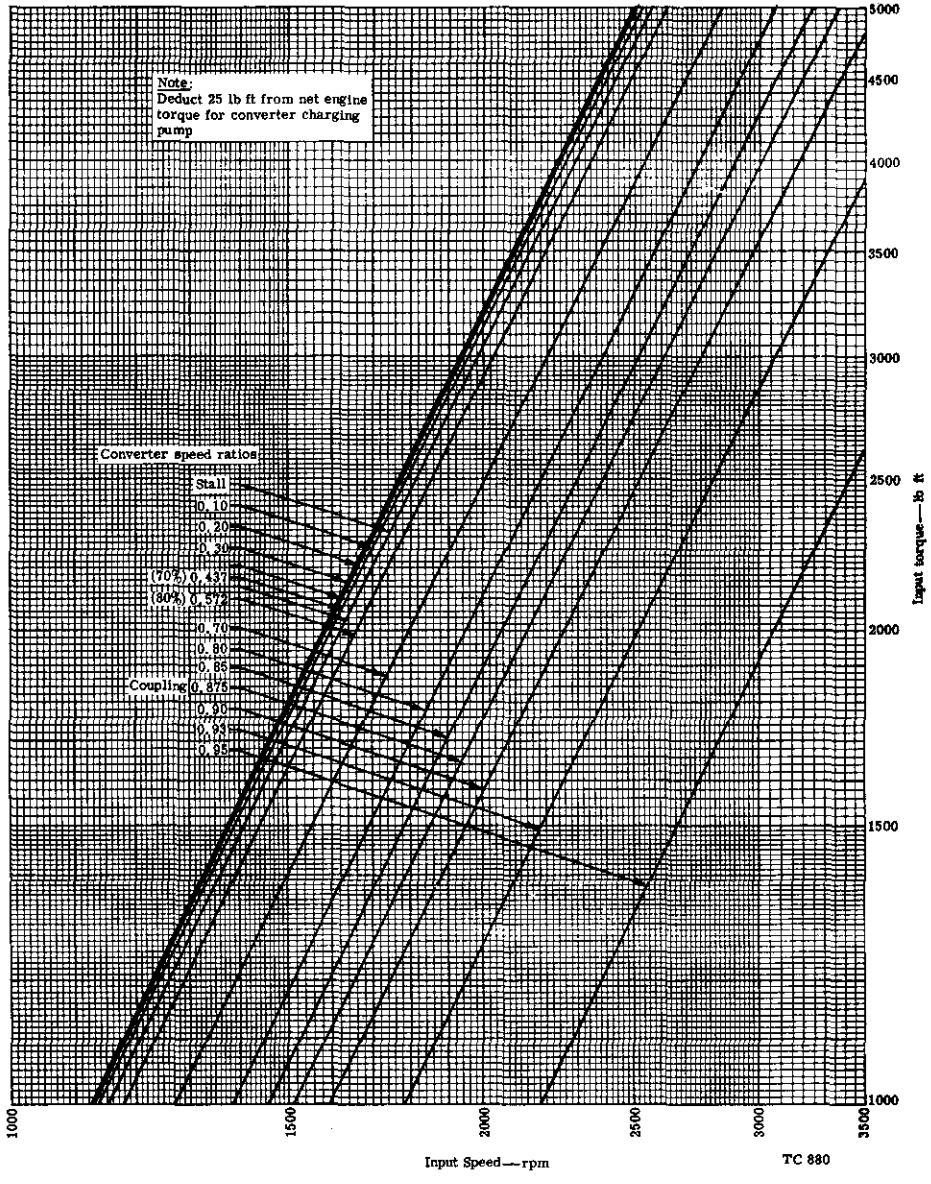
SA 1261 770

Litho U. S. A.

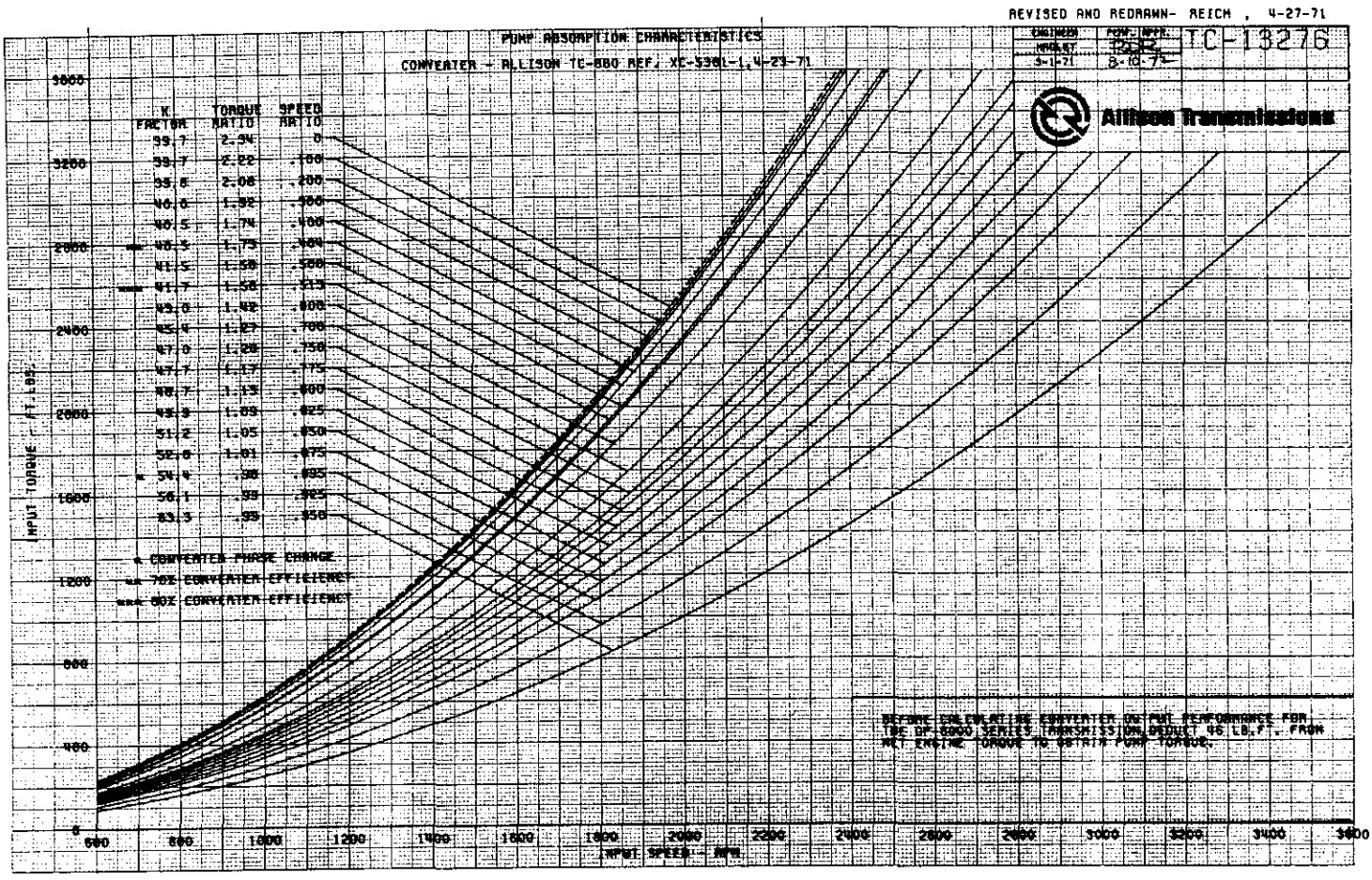
TORQMATIC CONVERTER

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-880 (3 Element) Converter



CONVERTER MATCH CHART MODEL NO. TC-860



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.34					
0.100	2.22					
0.200	2.08					
0.300	1.92					
0.400	1.74					
**0.404	1.73					
0.500	1.58					
***0.513	1.56					
0.600	1.42					
0.700	1.27					
0.750	1.20					
0.775	1.17					
0.800	1.13					
0.825	1.09					
0.850	1.05					
0.875	1.01					
*0.895	0.98					
0.925	0.99					
0.950	0.99					
*Phase change						
**(70%)						
***(80%)						

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TORQMATIC CONVERTER MATCH CHART MODEL TC-850

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics do not include the necessary corrections for the converter charging pump; refer to note on absorption chart.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net † torque

† See note on absorption chart.

ENGINE-CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
Stall	3.98					
0.10	3.39					
0.20	2.84					
*0.30	2.34					
0.40	1.97					
0.50	1.66					
**0.55	1.52					
0.625	1.38					
0.69	1.26					
0.775	1.09					
***0.832	0.98					
0.90	0.98					
0.95	0.98					
*(70%)						
**Junction						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

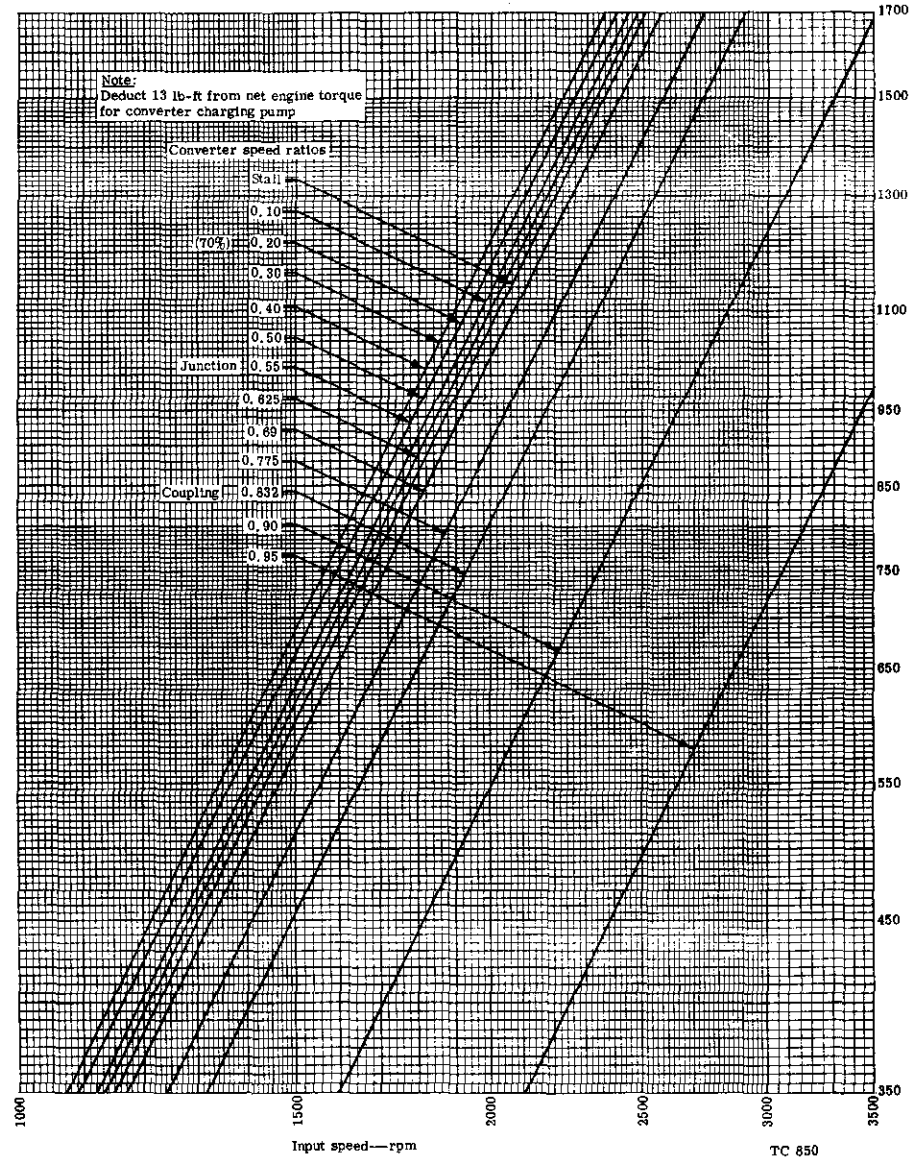
When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-850 Converter



TORQMATIC CONVERTER MATCH CHART

TORQMATIC CONVERTER — MATCH CHART MODEL TC-840

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics include the necessary corrections for the converter charging pump. When matching with the DP 8000 series transmission, deduct 25 lb ft from the net engine torque for transmission charging pump.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net torque

ENGINE-CONVERTER MATCH CHART

CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.21					
0.100	2.13					
0.200	2.00					
0.300	1.86					
*0.415	1.69					
**0.527	1.52					
0.600	1.40					
0.700	1.25					
0.800	1.10					
***0.880	0.96					
0.925	0.96					
0.95	0.96					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

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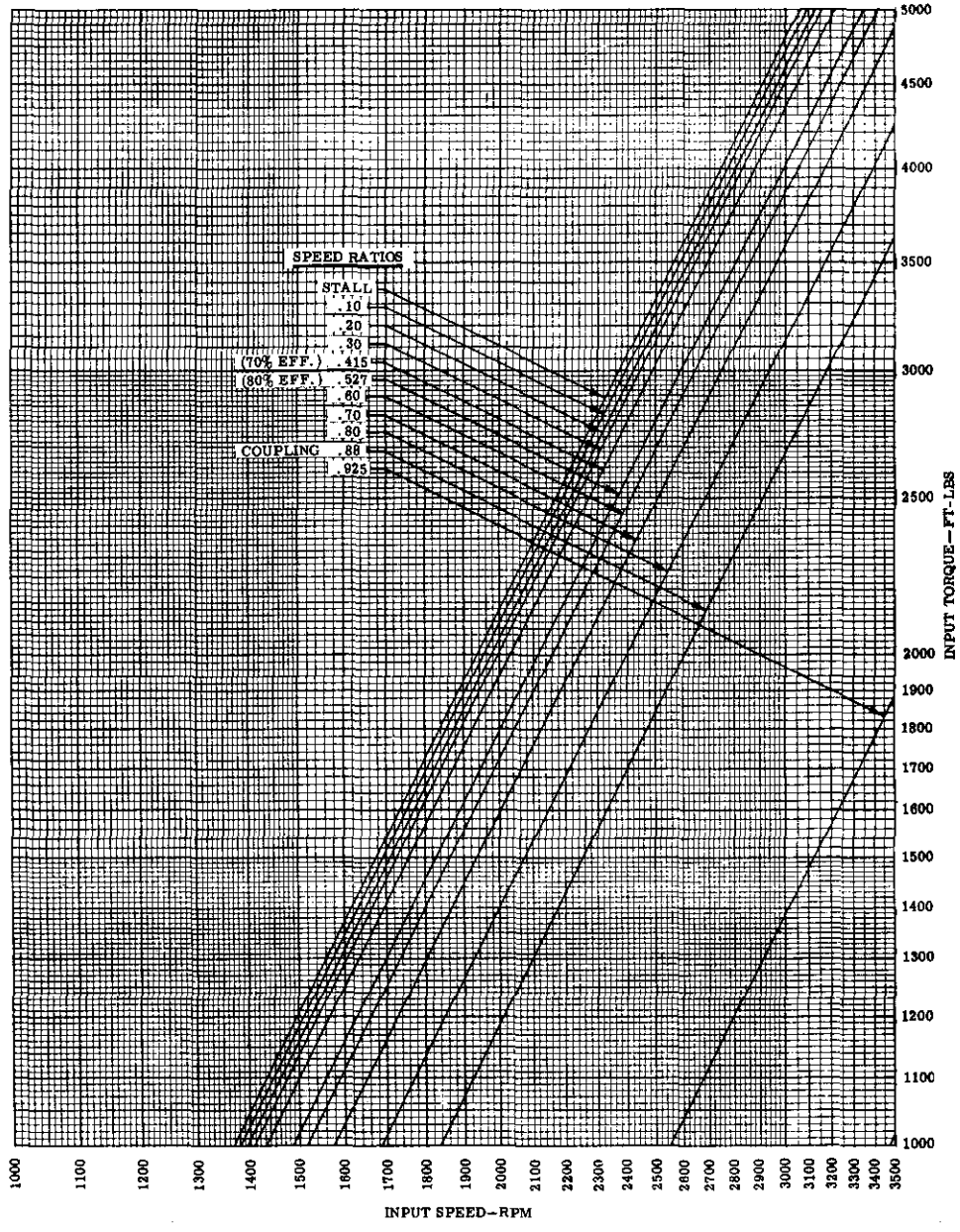
TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-840 Converter



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TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics do not include the necessary corrections for the converter charging pump; refer to note on absorption chart.

ENGINE DATA			
Mfgr:			
Model:			
Curve No:			
RPM (engine)	Gross torque	Accessory torque	Net torque †

† See note on absorption chart

ENGINE-CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.92					
0.10	2.70					
0.20	2.44					
*0.33	2.12					
0.50	1.72					
**0.60	1.48					
0.70	1.28					
0.80	1.05					
***0.825	1.00					
0.85	0.99					
0.90	0.98					
0.925	0.98					
0.95	0.98					
*(70%)						
**Junction						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Accessory torque" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

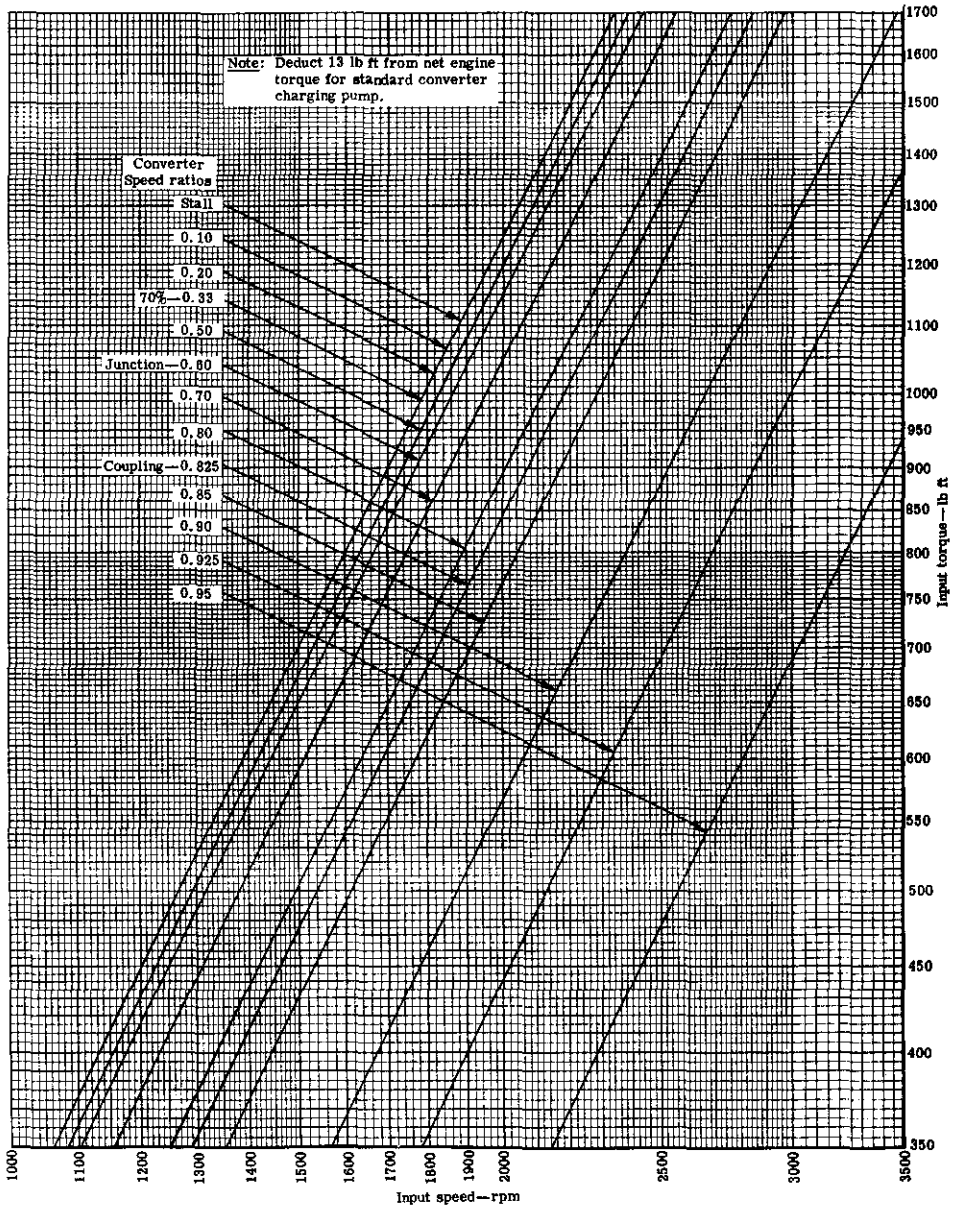
When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-840 (IND) Converter



TORQMATIC CONVERTER MATCH CHART

TORQMATIC CONVERTER MATCH CHART MODEL VTC-690

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC Converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range. In the variable capacity converter (VIP) there are two such ranges, open stator vanes (high converter capacity) and closed stator vanes (low converter capacity). The absorption chart (opposite page) shows the two speed bands (ranges). The match data chart below gives the pertinent data for both the open and closed positions.

The absorption chart on the opposite page shows the dual absorption characteristics of the TORQMATIC model indicated. When matching with the VCLT 5000 series transmissions, deduct 25 lb ft from the net engine torque.

ENGINE DATA			
Mnfctr.:			
Model:			
Curve No:			
RPM (Engine)	Torque (lb-ft)	Torque (deducted)	Net Torque

ENGINE CONVERTER MATCH CHART

CLOSED STATOR VANES							OPEN STATOR VANES						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT			CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) AxC=E	Torque (lb-ft) BxD=F	HP= ExF 5252	Speed ratic A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) AxC=E	Torque (lb-ft) BxD=F	HP= ExF 5252
Stall	1.78						Stall	2.38					
0.10	1.68						0.10	2.21					
0.20	1.58						0.20	2.03					
0.30	1.47						0.30	1.86					
0.40	1.38						*0.425	1.65					
0.50	1.29						0.50	1.52					
*0.575	1.22						#0.57	1.40					
0.70	1.11						0.70	1.22					
0.80	1.00						0.80	1.09					
+0.84	0.96						+0.89	0.97					
0.875	0.96						0.925	0.97					
0.90	0.96						0.95	0.97					
*(70%) +Coupling							*(70%) #(80%) +Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model and curve number.

The column titled "Torque deducted" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department, Telephone 317-243-2384

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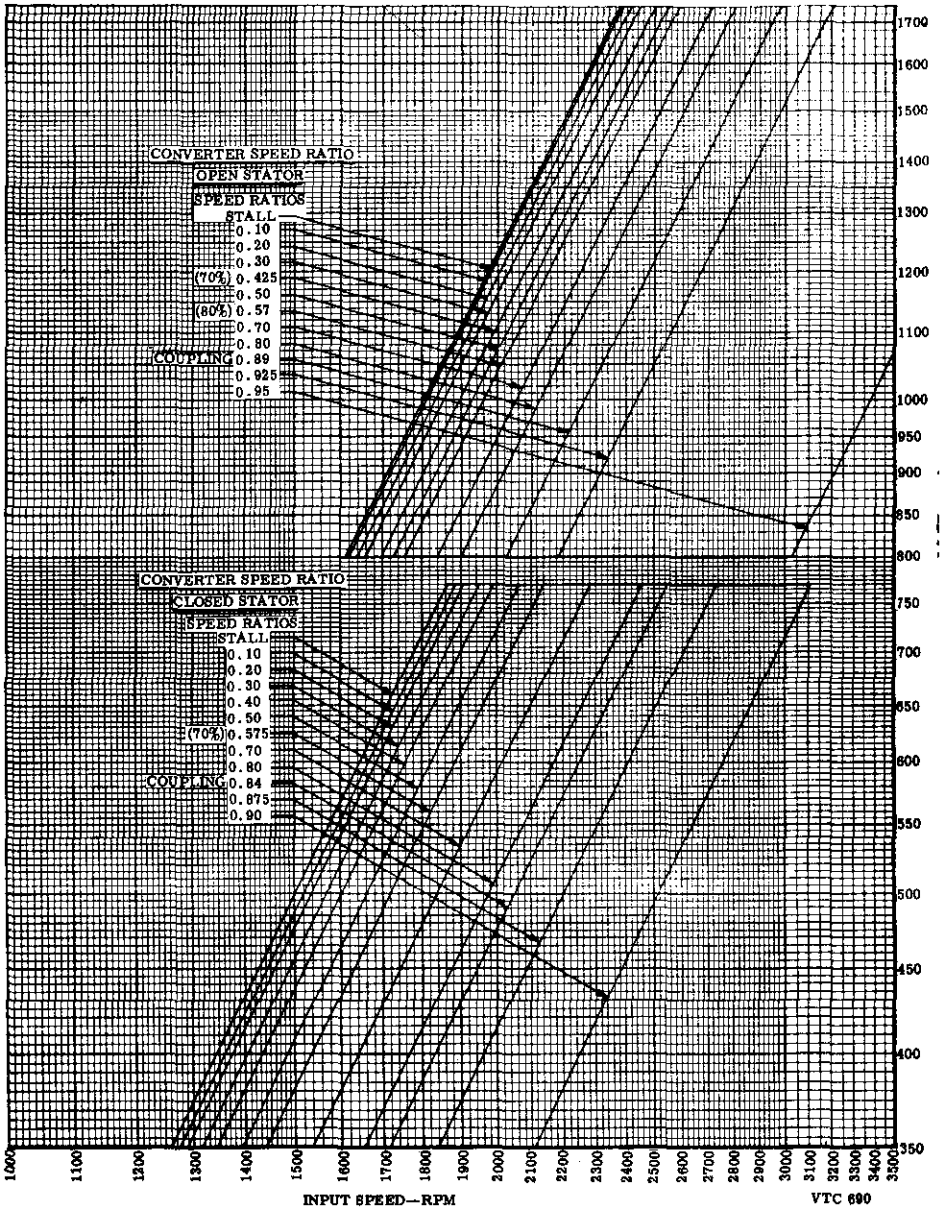
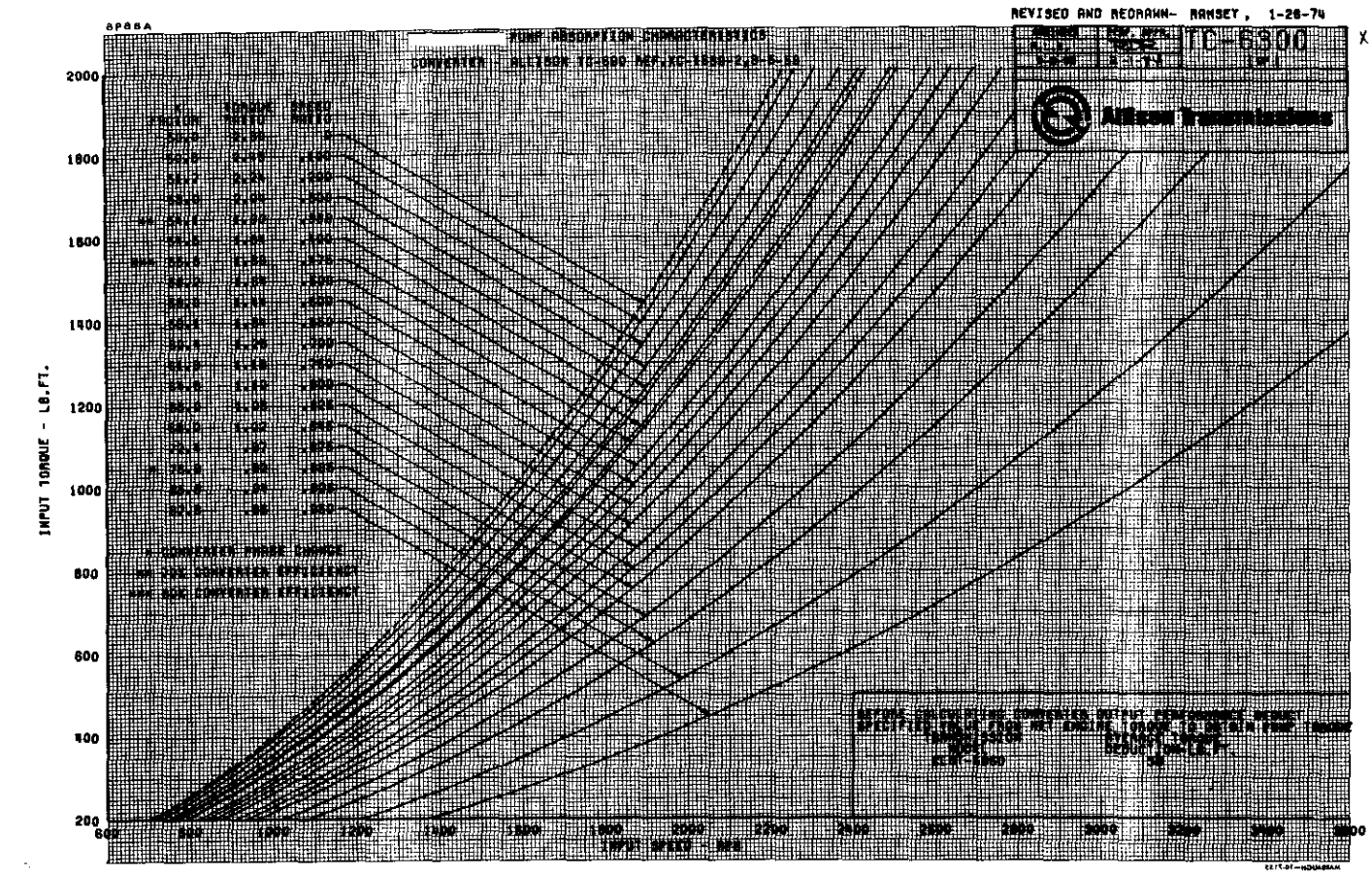
Litho U.S.A.

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL VTC-690 (3-Element) Converter



CONVERTER MATCH CHART MODEL NO. TC-690



TC-690

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	2.60					
0.100	2.43					
0.200	2.24					
0.300	2.04					
**0.369	1.90					
0.400	1.84					
***0.475	1.69					
0.500	1.64					
0.600	1.44					
0.650	1.34					
0.700	1.26					
0.750	1.18					
0.800	1.10					
0.825	1.06					
0.845	1.02					
0.875	0.97					
*0.895	0.92					
0.925	0.94					
0.950	0.96					
*Phase change						
**(70%)						
***(80%)						

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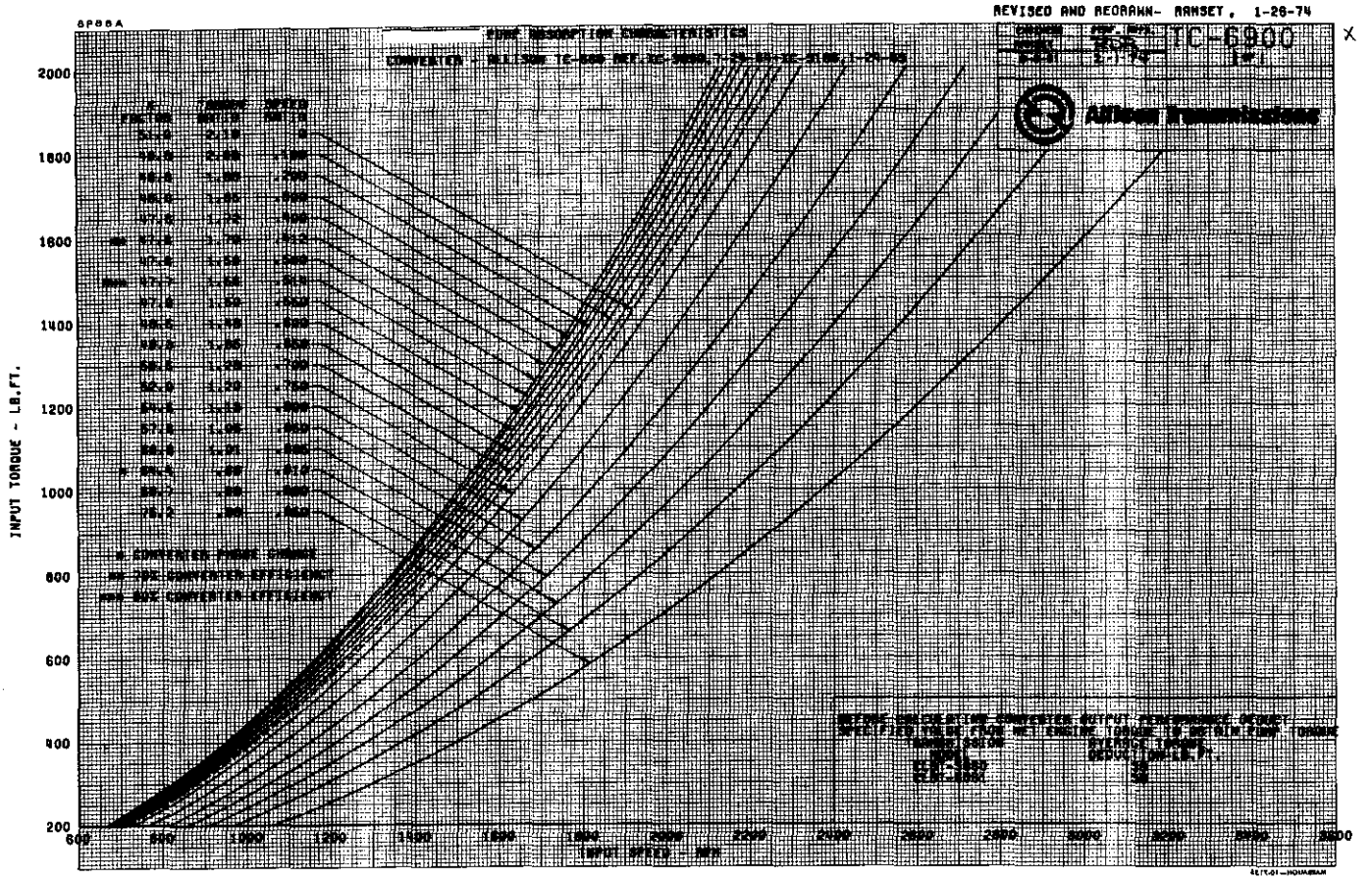
CONVERTER MATCH CHART MODEL NO. TC-680



TC680

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

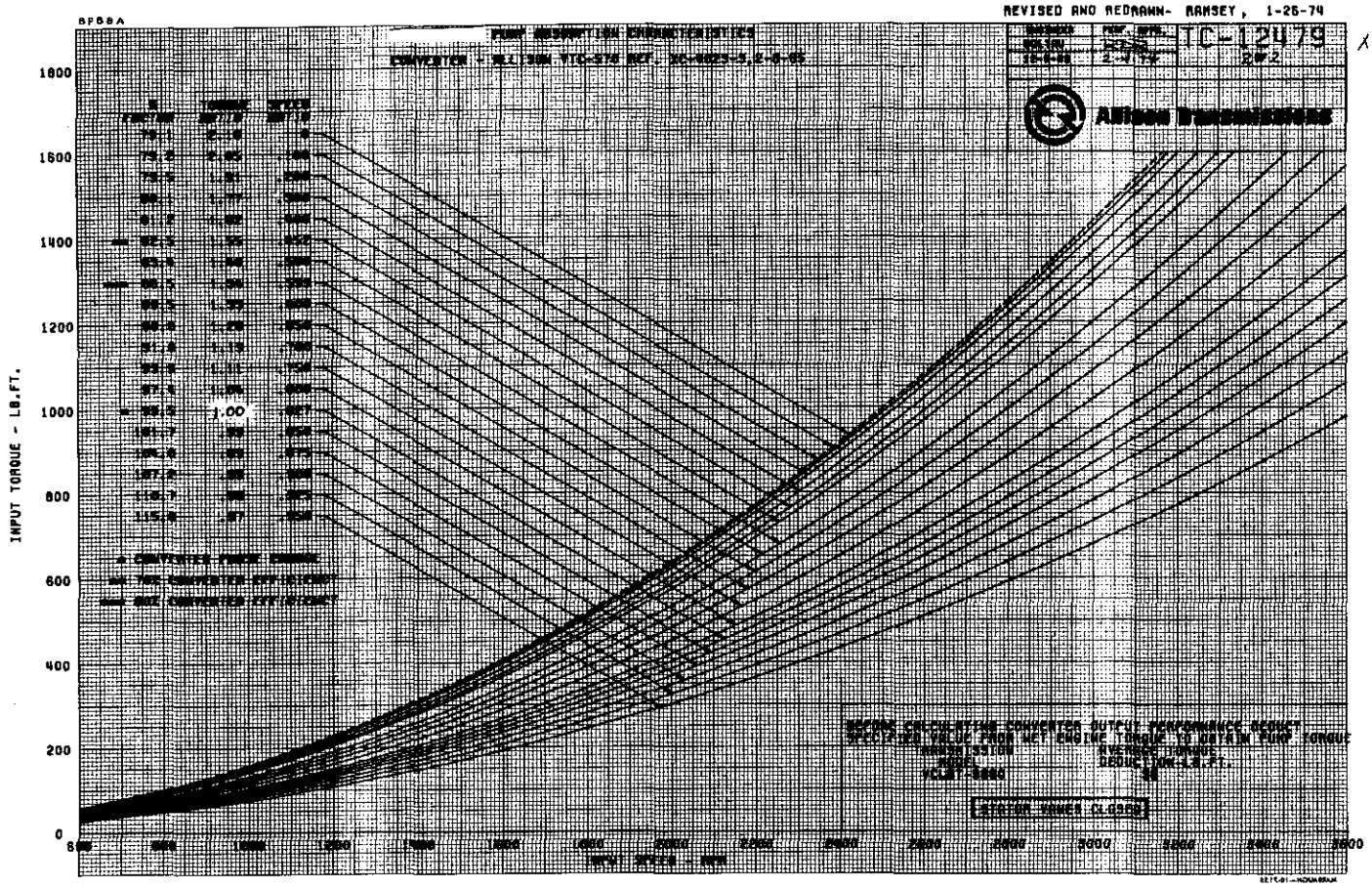
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
0	2.19					
0.100	2.09					
0.200	1.98					
0.300	1.85					
0.400	1.72					
**0.412	1.70					
0.500	1.58					
***0.514	1.56					
0.550	1.50					
0.600	1.43					
0.650	1.35					
0.700	1.28					
0.750	1.20					
0.800	1.13					
0.850	1.06					
0.885	1.01					
*0.910	0.98					
0.930	0.98					
0.950	0.98					
*Phase change						
**(70%)						
***(80%)						

SA-1180A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. VTC-570



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

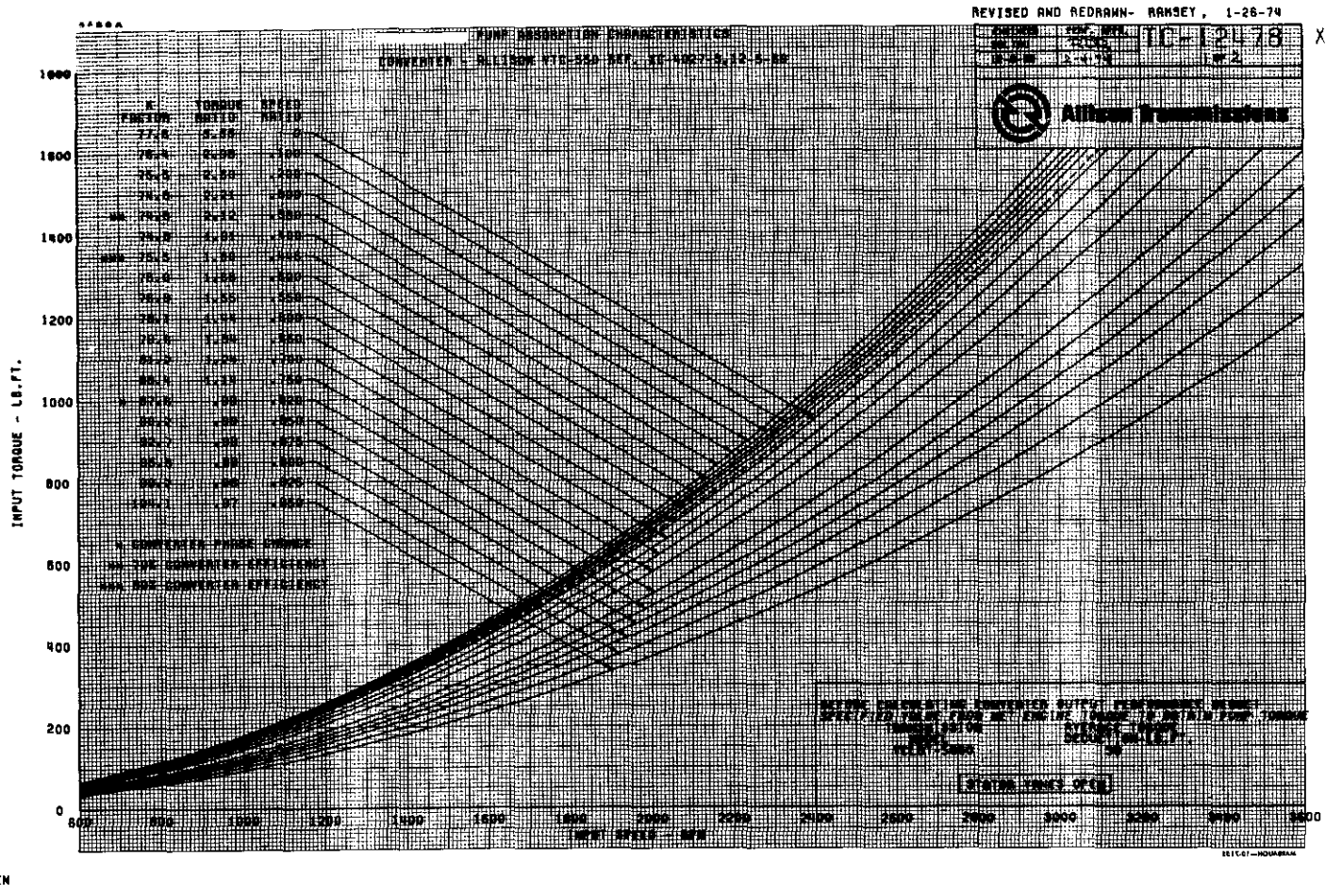
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	2.18					
0.100	2.05					
0.200	1.91					
0.300	1.77					
0.400	1.62					
**0.452	1.55					
0.500	1.48					
***0.599	1.34					
0.600	1.33					
0.650	1.26					
0.700	1.19					
0.750	1.11					
0.800	1.04					
*0.827	1.00					
0.850	0.99					
0.875	0.99					
0.900	0.99					
0.925	0.98					
0.950	0.97					
*Phase change						
**(70%)						
***(80%)						

SA-1597 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. VTC-550



OPEN

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	3.33					
0.100	2.98					
0.200	2.60					
0.300	2.21					
**0.330	2.12					
0.400	1.91					
***0.446	1.80					
0.500	1.66					
0.550	1.55					
0.600	1.44					
0.650	1.34					
0.700	1.24					
0.750	1.14					
*0.820	0.99					
0.850	0.99					
0.875	0.99					
0.900	0.99					
0.925	0.98					
0.950	0.97					
*Phase change						
**(70%)						
***(80%)						

SA-1596 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

TORQMATIC CONVERTER MATCH CHART MODEL TC-590

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics include the necessary corrections for the converter charging pump. When matching with the CRT 5631 transmission, deduct 20 lb ft from the NET engine torque. When matching with the CLT 5860 transmission, deduct 25 lb ft from the NET engine torque.

ENGINE DATA			
Mnfctr.:			
Model:			
Curve No:			
RPM (Engine)	Torque (lb-ft)	Torque (deducted)	Net Torque

ENGINE CONVERTER MATCH CHART

CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.50					
0.10	2.34					
0.30	1.97					
*0.39	1.78					
**0.52	1.54					
0.60	1.40					
0.70	1.25					
0.80	1.09					
***0.86	0.97					
0.90	0.97					
0.925	0.98					
0.95	0.98					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model and curve number.

The column titled "Torque deducted" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department, Telephone 317-244-1511, Extension 2384

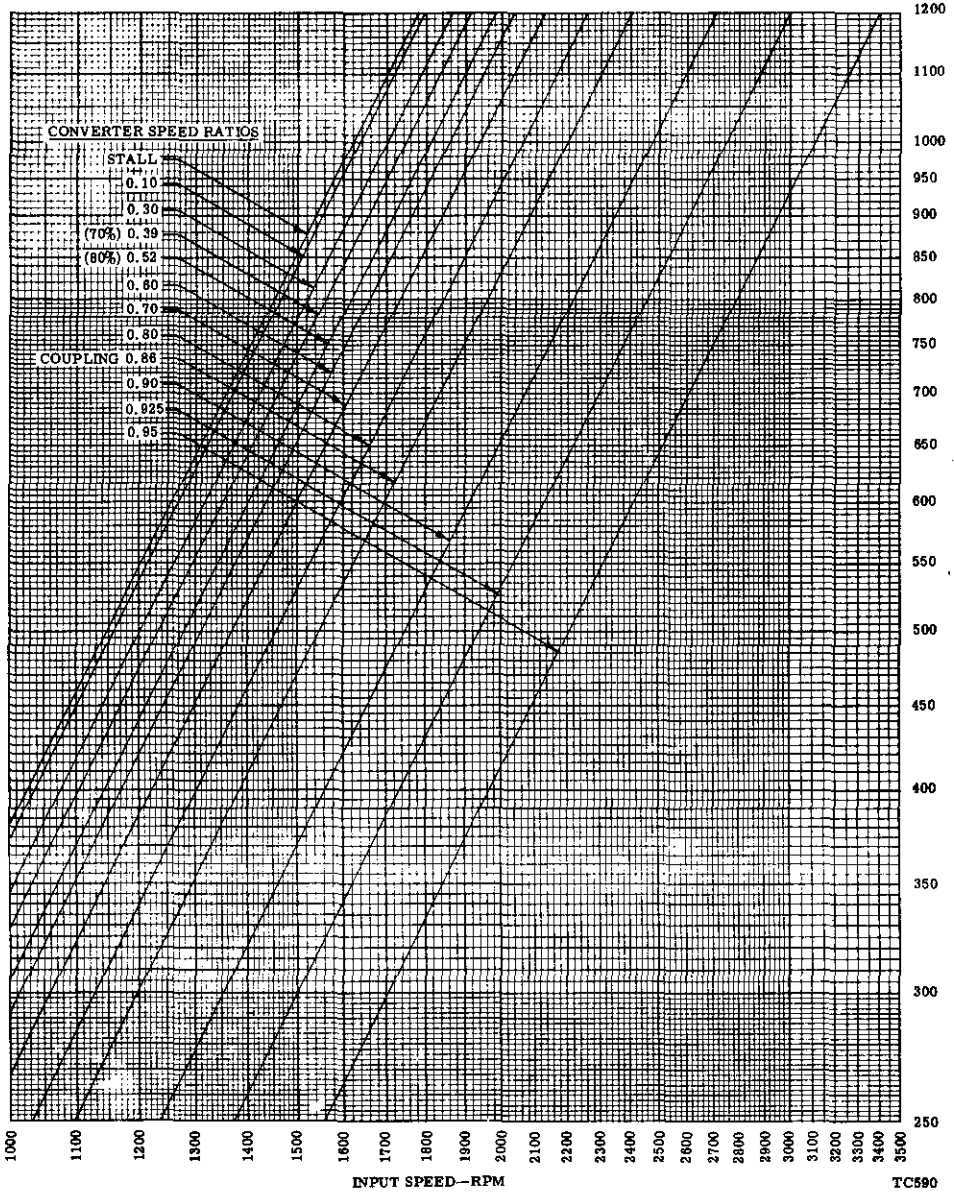
Allison DIVISION OF GENERAL MOTORS, Box 894, Indianapolis, Indiana 46206

SA 1204 1267

Litho U.S.A.

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-590 (3-Element) Converter



TORQMATIC CONVERTER ● MATCH CHART MODEL TC-580 ●

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics include the necessary corrections for the converter charging pump. When matching with the CRT 5631 transmission, deduct 20 lb ft from the NET engine torque. When matching with the CLT 5860 transmission, deduct 25 lb ft from the NET engine torque.

ENGINE DATA			
Mnfctr.:			
Model:			
Curve No:			
RPM (Engine)	Torque (lb-ft)	Torque (deducted)	Net Torque

ENGINE CONVERTER MATCH CHART

CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.63					
0.10	2.49					
0.20	2.29					
*0.38	1.83					
**0.51	1.57					
0.60	1.41					
0.70	1.24					
0.80	1.08					
***0.865	0.96					
0.90	0.96					
0.925	0.96					
0.95	0.96					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model and curve number.

The column titled "Torque deducted" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

For further information contact the Sales Department, Telephone 317-244-1511, Extension 2384

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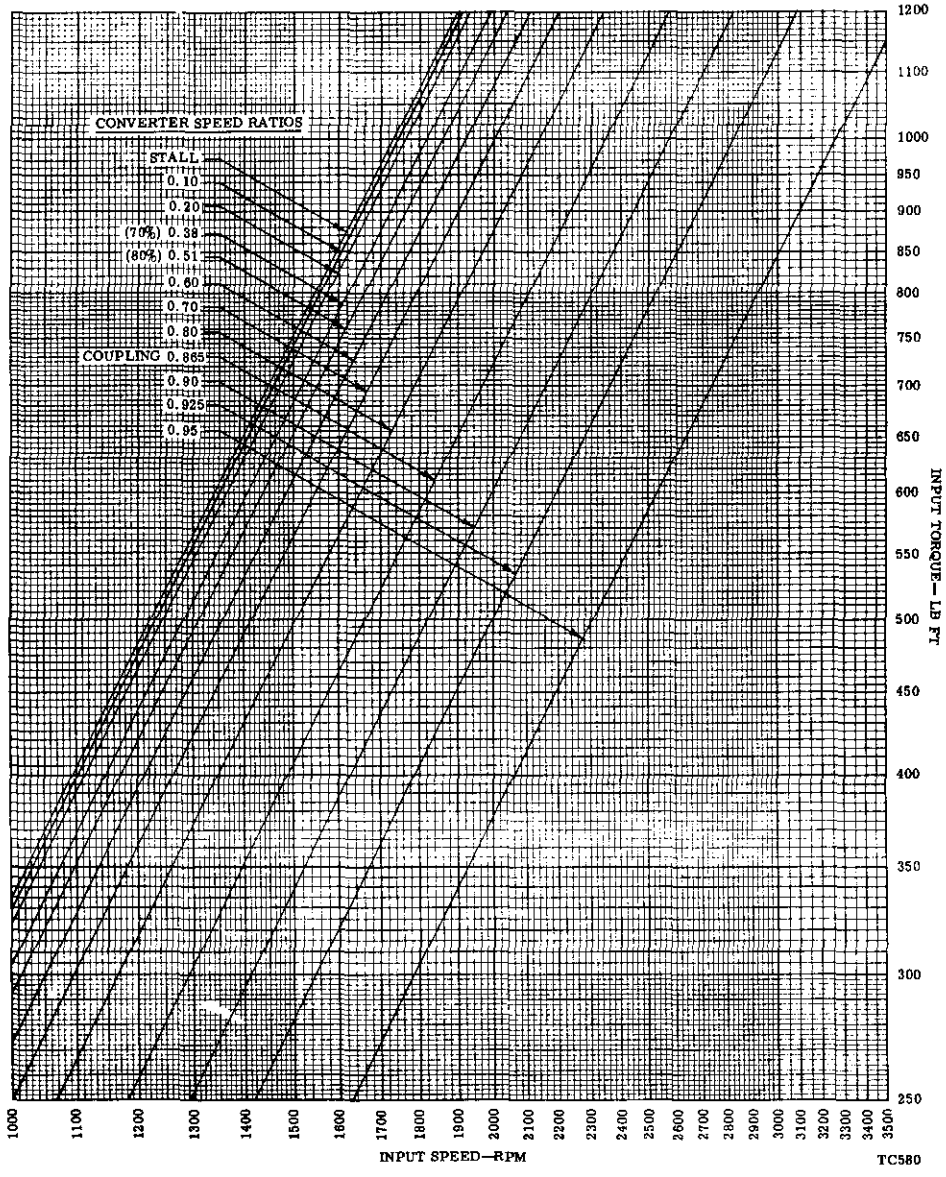
TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-580 (3-Element) Converter



SA 1203 1267

Litho U.S.A.

TORQMATIC CONVERTER ● MATCH CHART MODEL TC-570 ●

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics include the necessary corrections for the converter charging pump. When matching with the CRT 5631 transmission, deduct 20 lb ft from the NET engine torque. When matching with the CLT 5860 transmission, deduct 25 lb ft from the NET engine torque.

ENGINE DATA			
Mnfctr.:			
Model:			
Curve No:			
RPM (Engine)	Torque (lb-ft)	Torque (deducted)	Net Torque

ENGINE CONVERTER MATCH CHART						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	3.19					
0.20	2.49					
*0.35	2.01					
**0.48	1.66					
0.60	1.41					
0.70	1.22					
0.80	1.02					
***0.83	0.96					
0.875	0.97					
0.90	0.97					
0.925	0.98					
0.95	0.98					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model and curve number.

The column titled "Torque deducted" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

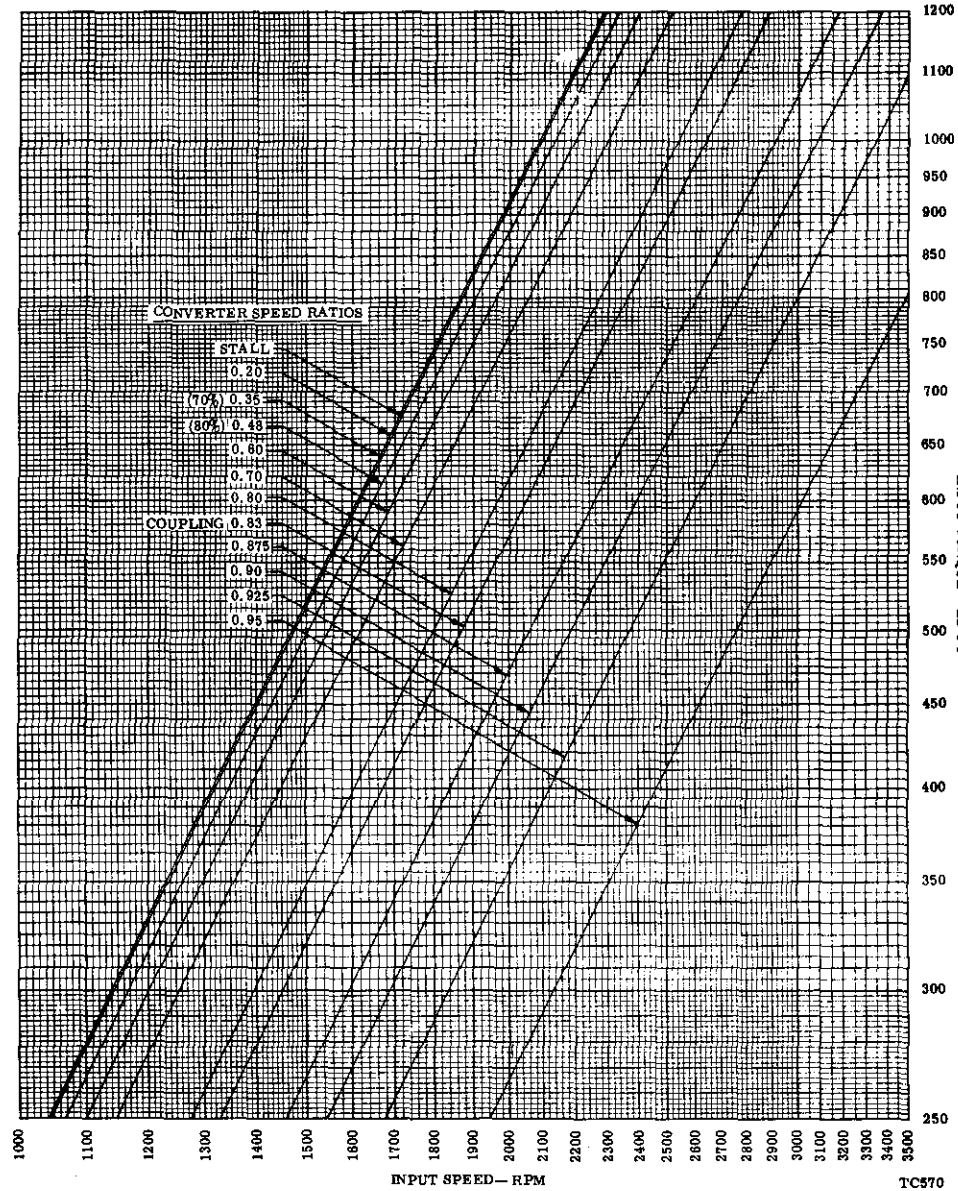
The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-570 (3-Element) Converter



For further information contact the Sales Department, Telephone 317-244-1511, Extension 2384

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SA 1202 1267

Litho U.S.A.

TORQMATIC CONVERTER MATCH CHART MODEL TC-560

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics include the necessary corrections for the converter charging pump. When matching with the CRT 5631 transmission, deduct 20 lb ft from the NET engine torque. When matching with the CLT 5860 transmission, deduct 25 lb ft from the NET engine torque.

ENGINE DATA			
Mnfctr.:			
Model:			
Curve No:			
RPM (Engine)	Torque (lb-ft)	Torque (deducted)	Net Torque

ENGINE CONVERTER MATCH CHART

CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	2.69					
0.10	2.47					
0.20	2.25					
*0.38	1.84					
**0.50	1.61					
0.60	1.42					
0.70	1.25					
0.80	1.07					
***0.85	0.98					
0.90	0.97					
0.925	0.97					
0.95	0.96					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model and curve number.

The column titled "Torque deducted" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

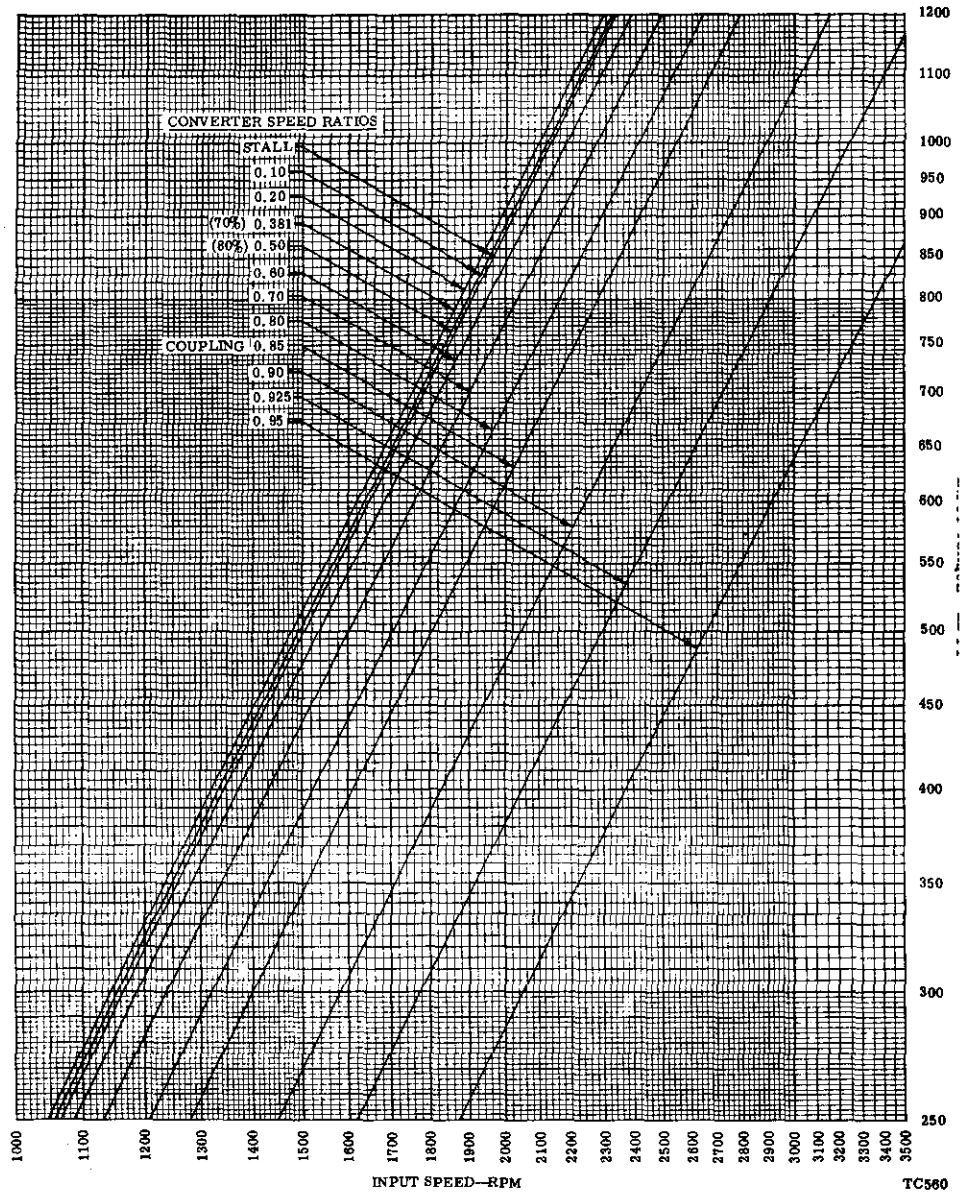
The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-560 (3-Element) Converter



For further information contact the Sales Department, Telephone 317-244-1511, Extension 2384

Allison DIVISION OF GENERAL MOTORS, Box 894, Indianapolis, Indiana 46206

SA 1201 1267

Litho U.S.A.

TORQMATIC CONVERTER • MATCH CHART MODEL TC-550 •

TORQMATIC CONVERTER MATCH CHART

MATCHING CONVERTER AND ENGINE

The selection of the TORQMATIC converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart on the opposite page shows the absorption characteristics of the TORQMATIC converter model indicated. These characteristics include the necessary corrections for the converter charging pump. When matching with the CRT 5631 transmission, deduct 20 lb ft from the NET engine torque. When matching with the CLT 5860 transmission, deduct 25 lb ft from the NET engine torque.

ENGINE DATA			
Mnfctr.:			
Model:			
Curve No:			
RPM (Engine)	Torque (lb-ft)	Torque (deducted)	Net Torque

ENGINE CONVERTER MATCH CHART

CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	3.36					
0.20	2.58					
*0.34	2.08					
**0.47	1.70					
0.60	1.42					
0.70	1.23					
0.75	1.11					
***0.815	0.95					
0.875	0.96					
0.90	0.96					
0.925	0.96					
0.95	0.96					
*(70%)						
**(80%)						
***Coupling						

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model and curve number.

The column titled "Torque deducted" represents the torque required to drive engine-driven accessories. This torque must be deducted from the gross torque and will result in the figures to be listed under net torque.

The net engine output torque available for input to the converter must be used in plotting engine speed and torque on the torque converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

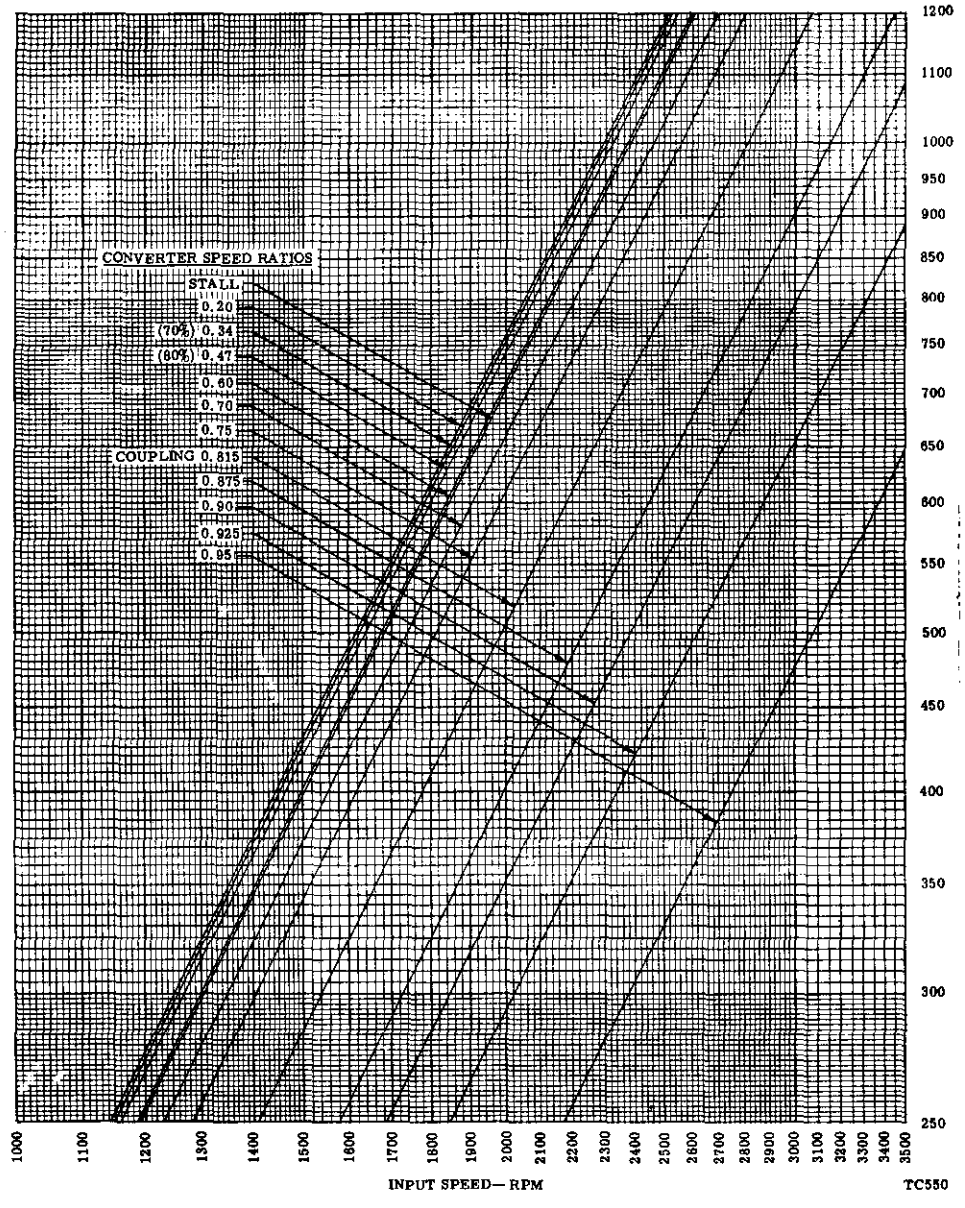
The converter speed ratios, in relation to engine speed, range from converter turbine stall through coupling as shown in the absorption chart.

When plotting the engine input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart.

TORQMATIC CONVERTER TORQUE ABSORPTION CHART

MODEL TC-550 (3-Element) Converter



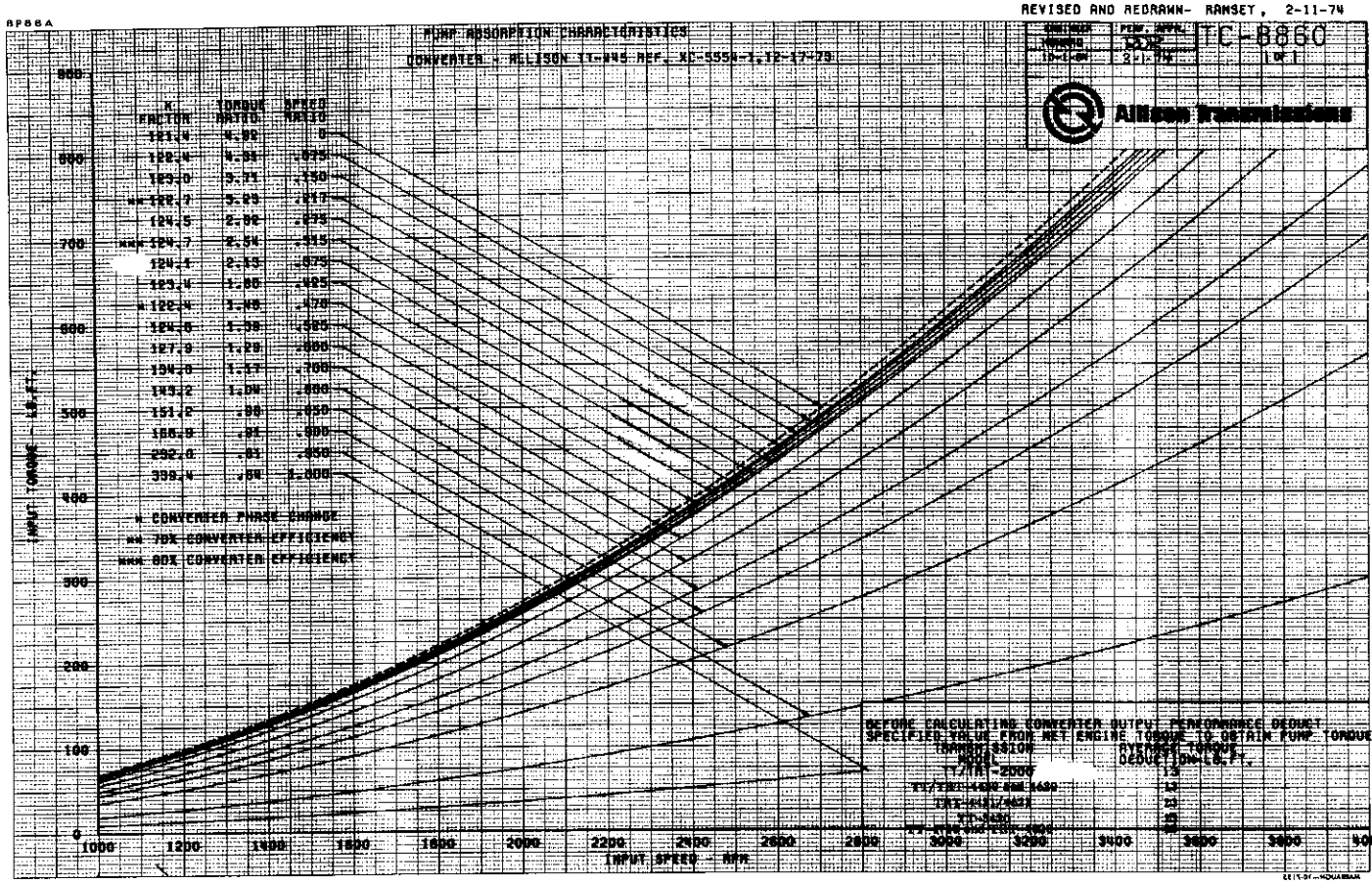
For further information contact the Sales Department, Telephone 317-244-1511, Extension 2384

Allison DIVISION OF GENERAL MOTORS, Box 894, Indianapolis, Indiana 46206

SA 1200 1267

Litho U.S.A.

SA-1351A CONVERTER MATCH CHART MODEL NO. TT-445



TT-445

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

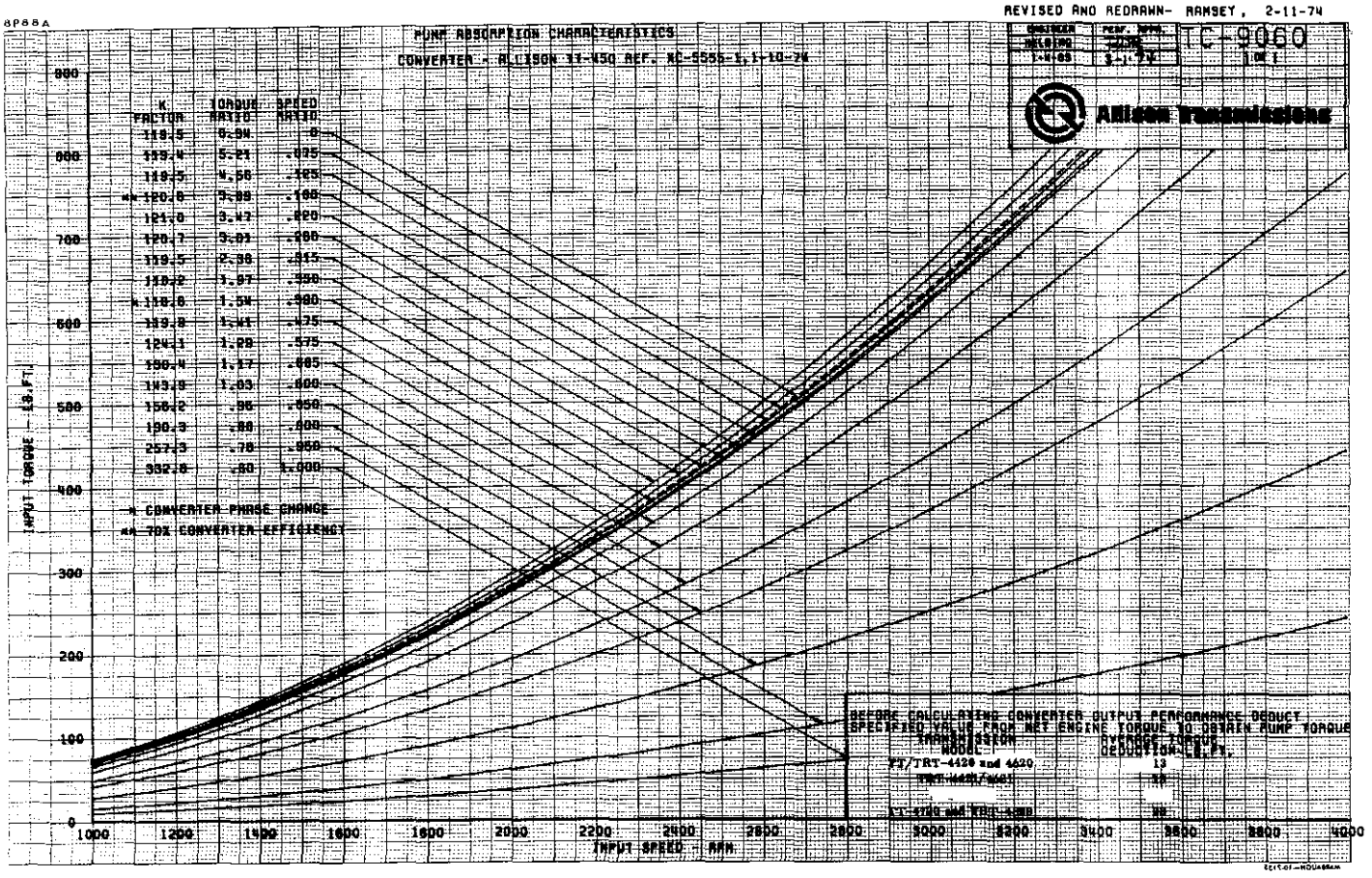
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
0	4.92					
0.075	4.31					
0.150	3.71					
**0.217	3.23					
0.275	2.82					
***0.315	2.54					
0.375	2.13					
0.425	1.80					
*0.470	1.48					
0.525	1.39					
0.600	1.29					
0.700	1.17					
0.800	1.04					
0.850	0.98					
0.900	0.91					
0.950	0.81					
1.000	0.64					
*Phase change						
**(70%)						
***(80%)						

SA-1351A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-450



TT-450

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

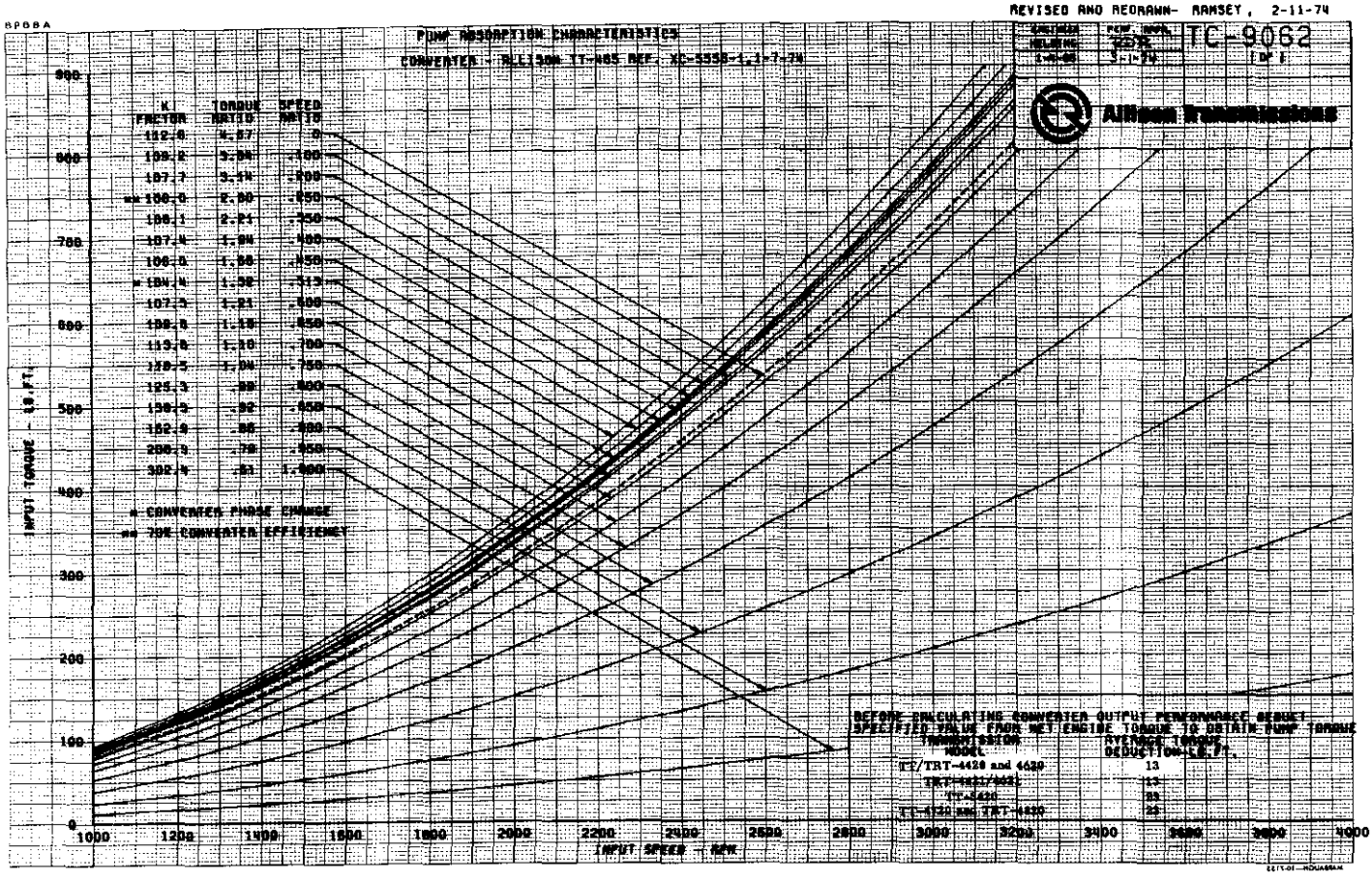
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	6.34					
0.075	5.21					
0.125	4.56					
**0.180	3.89					
0.220	3.47					
0.260	3.01					
0.315	2.36					
0.350	1.97					
*0.390	1.54					
0.475	1.41					
0.575	1.29					
0.685	1.17					
0.800	1.03					
0.850	0.96					
0.900	0.88					
0.950	0.78					
1.000	0.60					
*Phase change						
**(70%)						
***(80%)						

SA-1258A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-465



TT-465

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

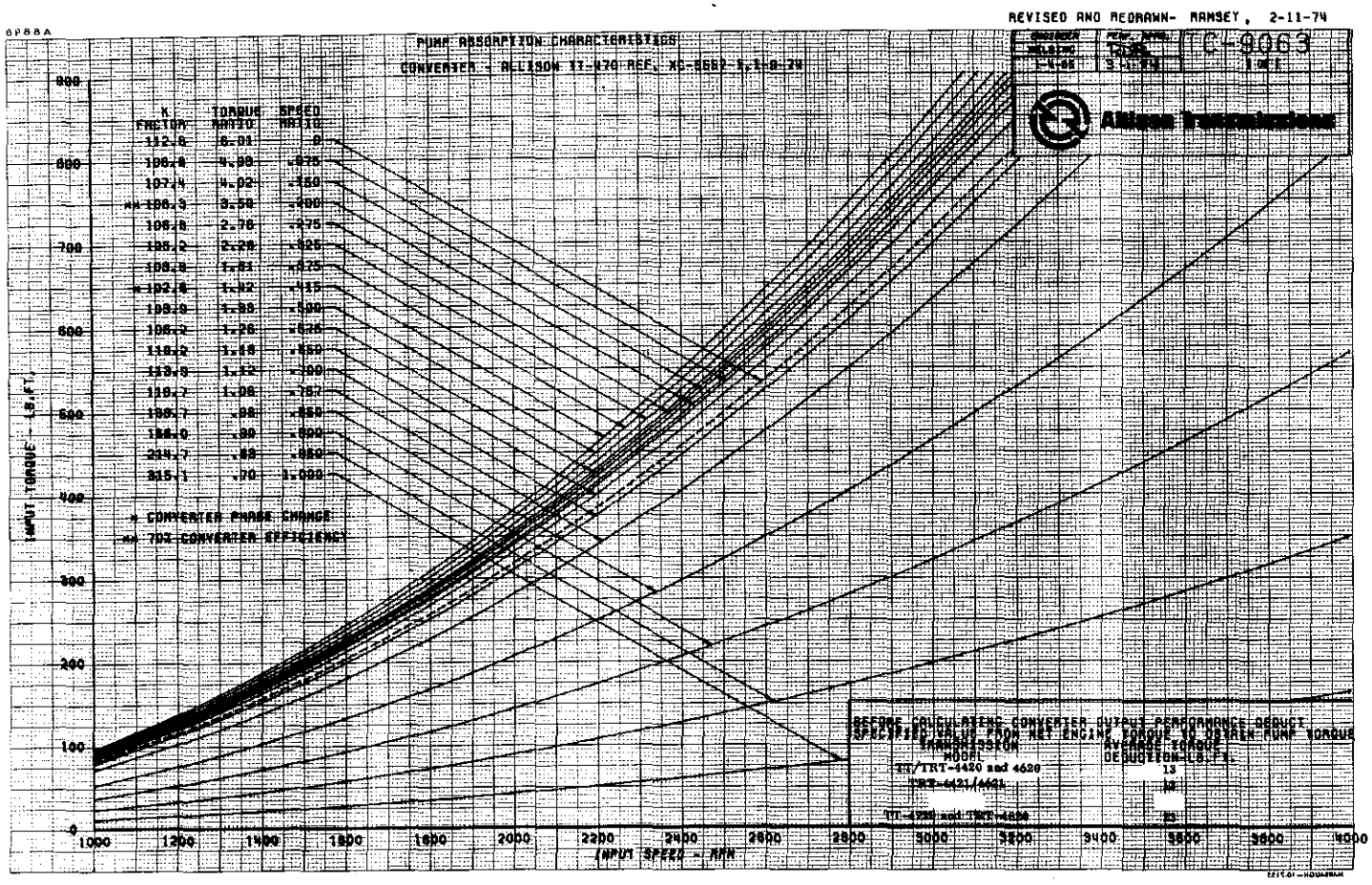
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
0	4.67					
0.100	3.84					
0.200	3.14					
**0.250	2.80					
0.350	2.21					
0.400	1.94					
0.450	1.66					
*0.513	1.32					
0.600	1.21					
0.650	1.16					
0.700	1.10					
0.750	1.04					
0.800	0.99					
0.850	0.92					
0.900	0.86					
0.950	0.79					
1.000	0.61					
*Phase change						
**(70%)						
***(80%)						

SA-1195B 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-470



TT-470

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

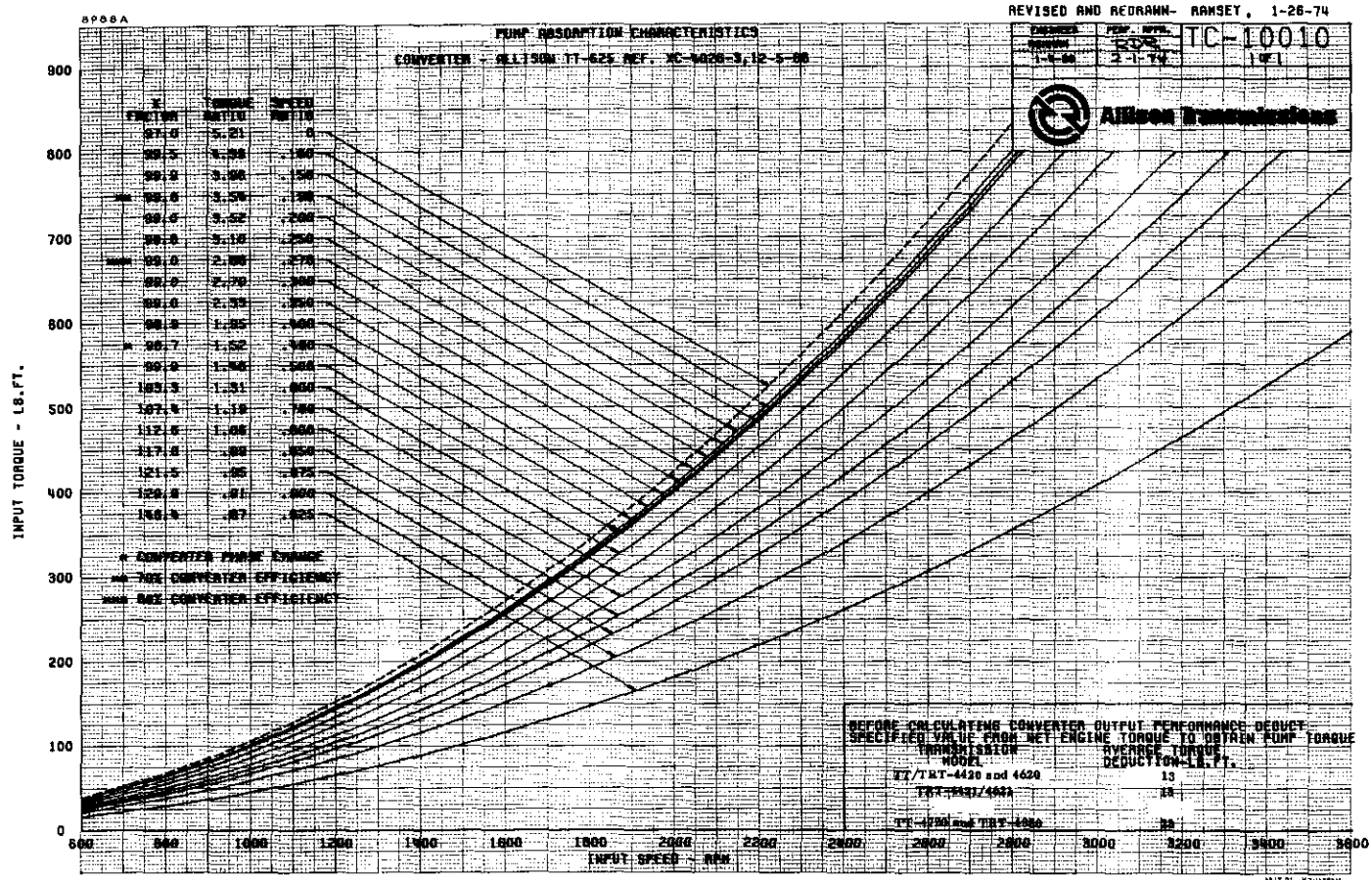
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
0	6.01					
0.075	4.93					
0.150	4.02					
**0.200	3.50					
0.275	2.76					
0.325	2.28					
0.375	1.81					
*0.415	1.42					
0.500	1.33					
0.575	1.26					
0.650	1.18					
0.700	1.12					
0.757	1.06					
0.850	0.96					
0.900	0.90					
0.950	0.83					
1.000	0.70					
*Phase change						
**(70%)						
***(80%)						

SA-1259A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-625



TT-625

MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

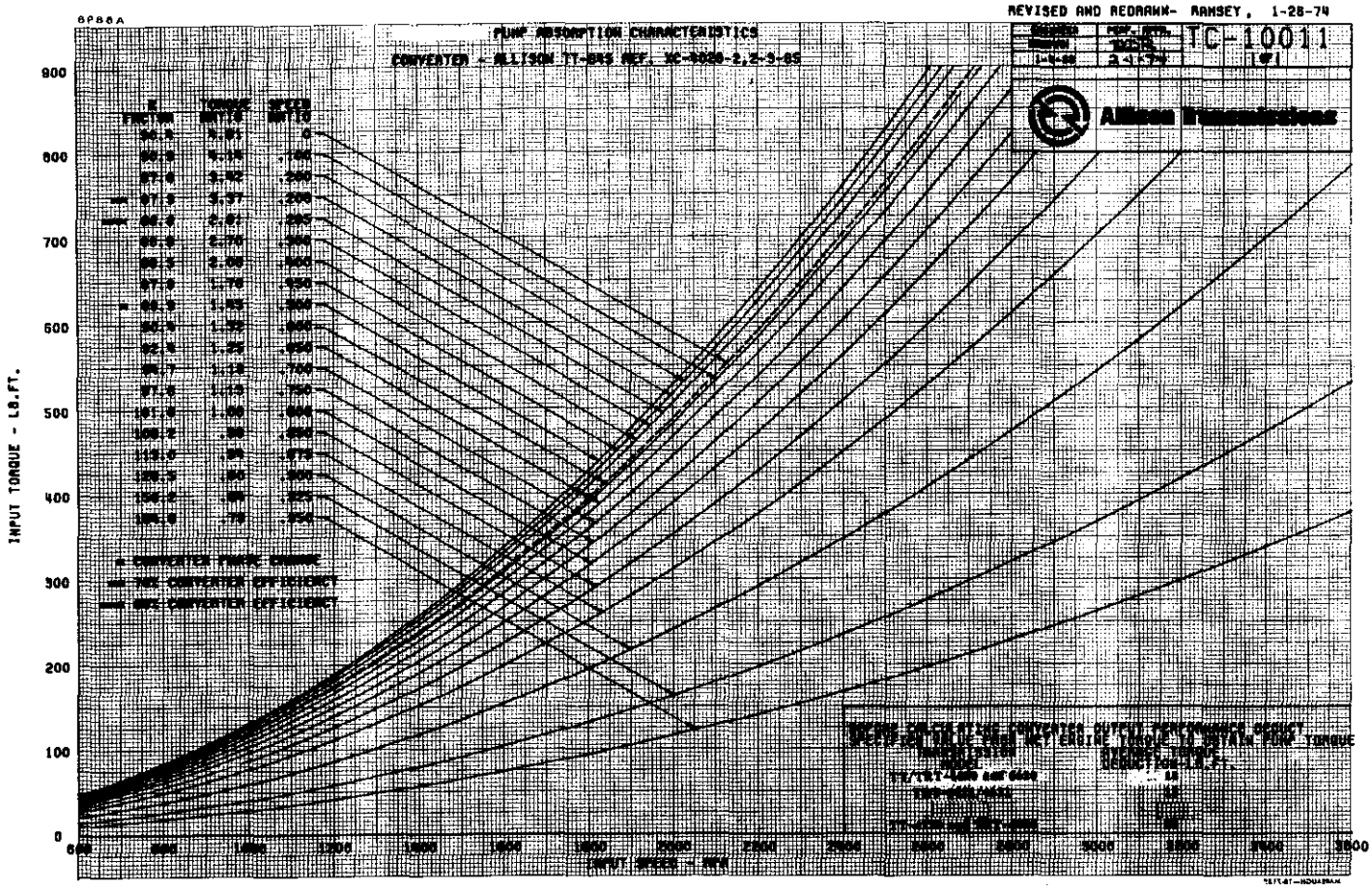
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}},$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower E x F / 5252
0	5.21					
0.100	4.39					
0.150	3.96					
**0.198	3.54					
0.200	3.52					
0.250	3.10					
***0.278	2.88					
0.300	2.70					
0.350	2.33					
0.400	1.95					
*0.460	1.52					
0.500	1.46					
0.600	1.31					
0.700	1.19					
0.800	1.06					
0.850	0.99					
0.875	0.95					
0.900	0.91					
0.925	0.87					
*Phase change						
**(70%)						
***(80%)						

SA-1196A 5/77

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

CONVERTER MATCH CHART MODEL NO. TT-645



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	4.91					
0.100	4.14					
0.200	3.42					
**0.208	3.37					
***0.285	2.81					
0.300	2.70					
0.400	2.06					
0.450	1.76					
*0.500	1.45					
0.600	1.32					
0.650	1.25					
0.700	1.19					
0.750	1.13					
0.800	1.06					
0.850	0.98					
0.875	0.94					
0.900	0.90					
0.925	0.84					
0.950	0.79					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
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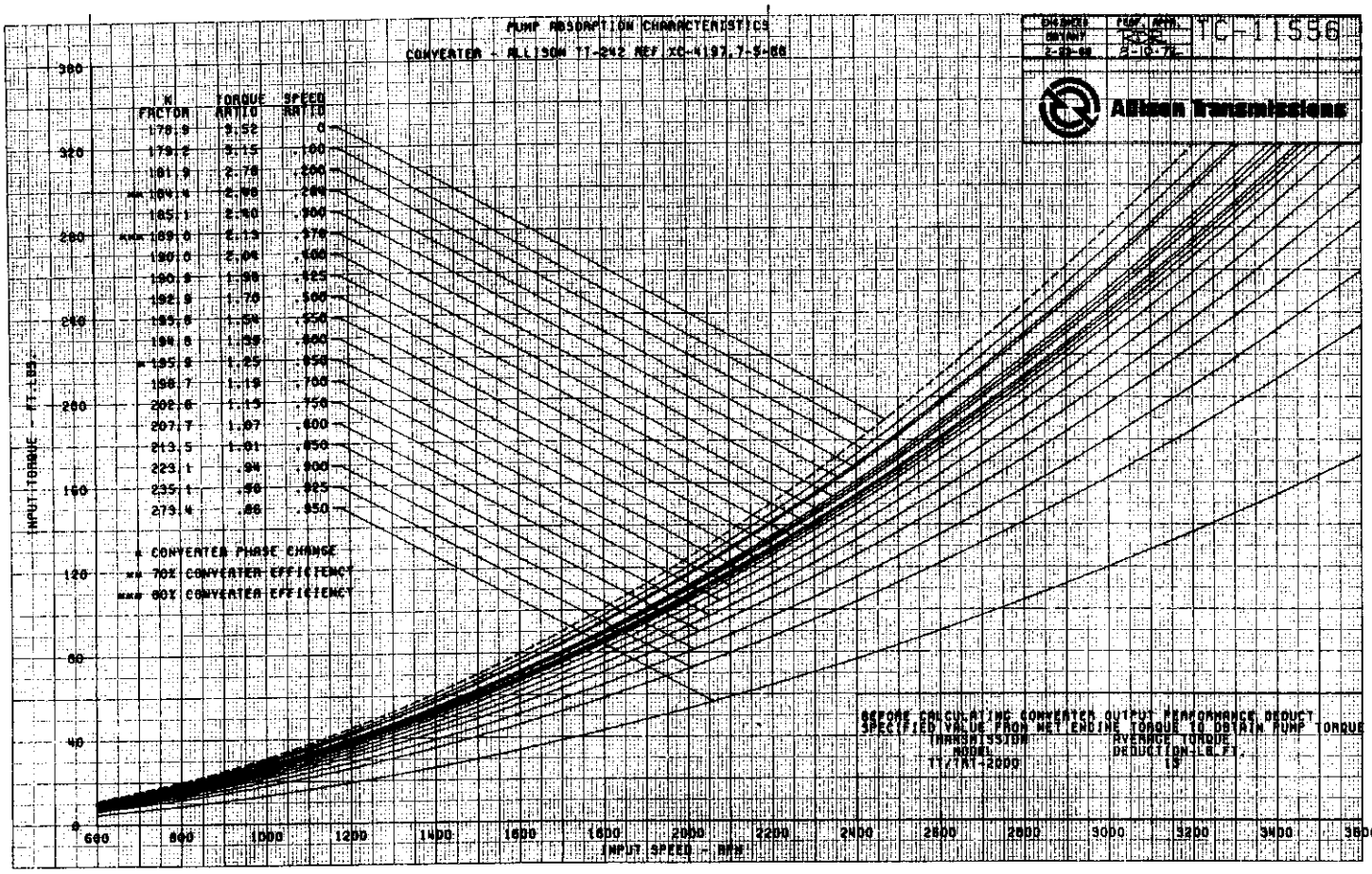
SA-1260A 6/75

CONVERTER MATCH CHART MODEL NO. TT-242



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

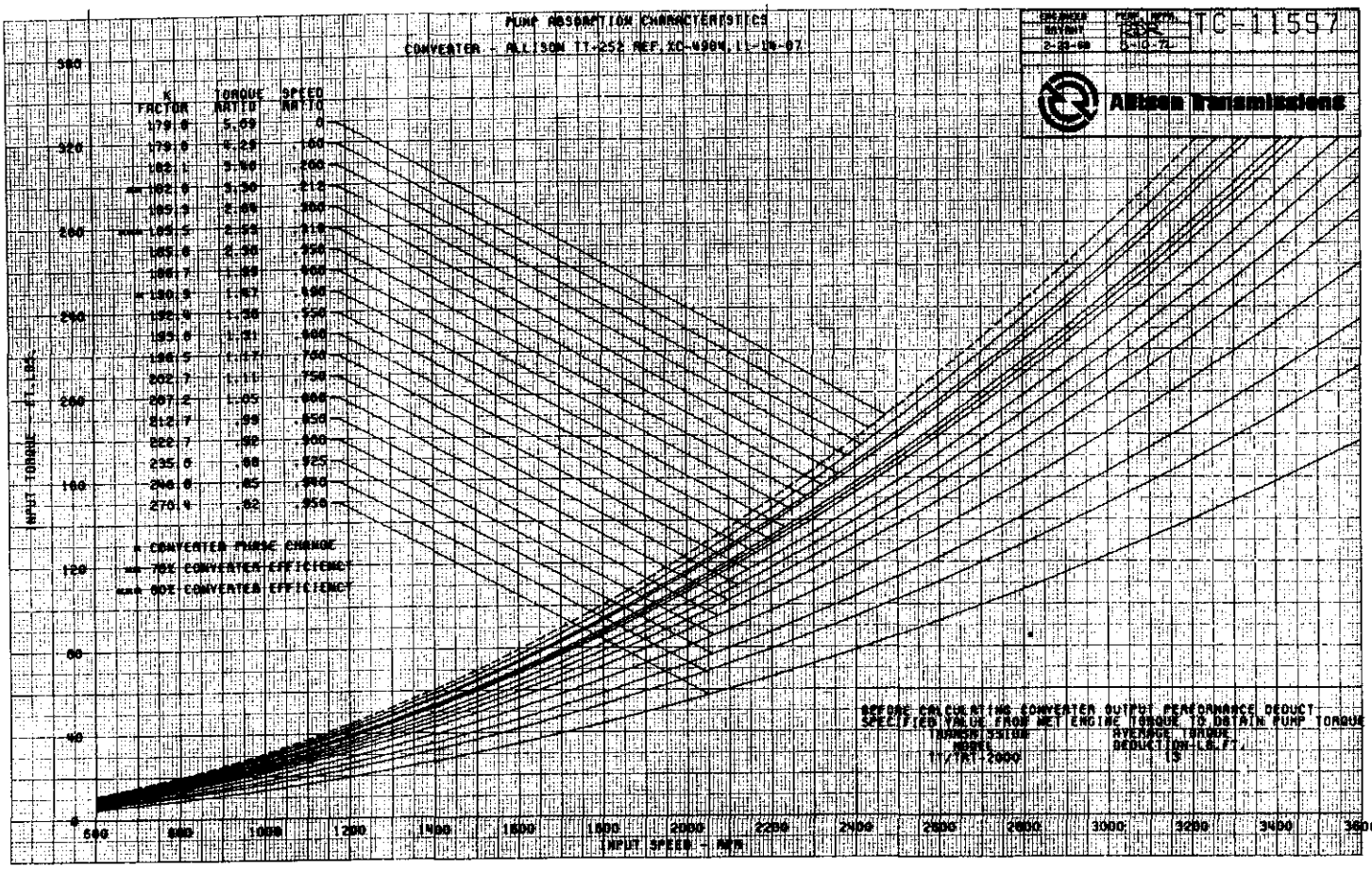
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	3.52					
0.100	3.15					
0.200	2.78					
**0.284	2.46					
0.300	2.40					
***0.376	2.13					
0.400	2.04					
0.425	1.96					
0.500	1.70					
0.550	1.54					
0.600	1.39					
*0.650	1.25					
0.700	1.19					
0.750	1.13					
0.800	1.07					
0.850	1.01					
0.900	0.94					
0.925	0.90					
0.950	0.86					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

SA-1344 11/72

CONVERTER MATCH CHART MODEL NO. TT-252



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

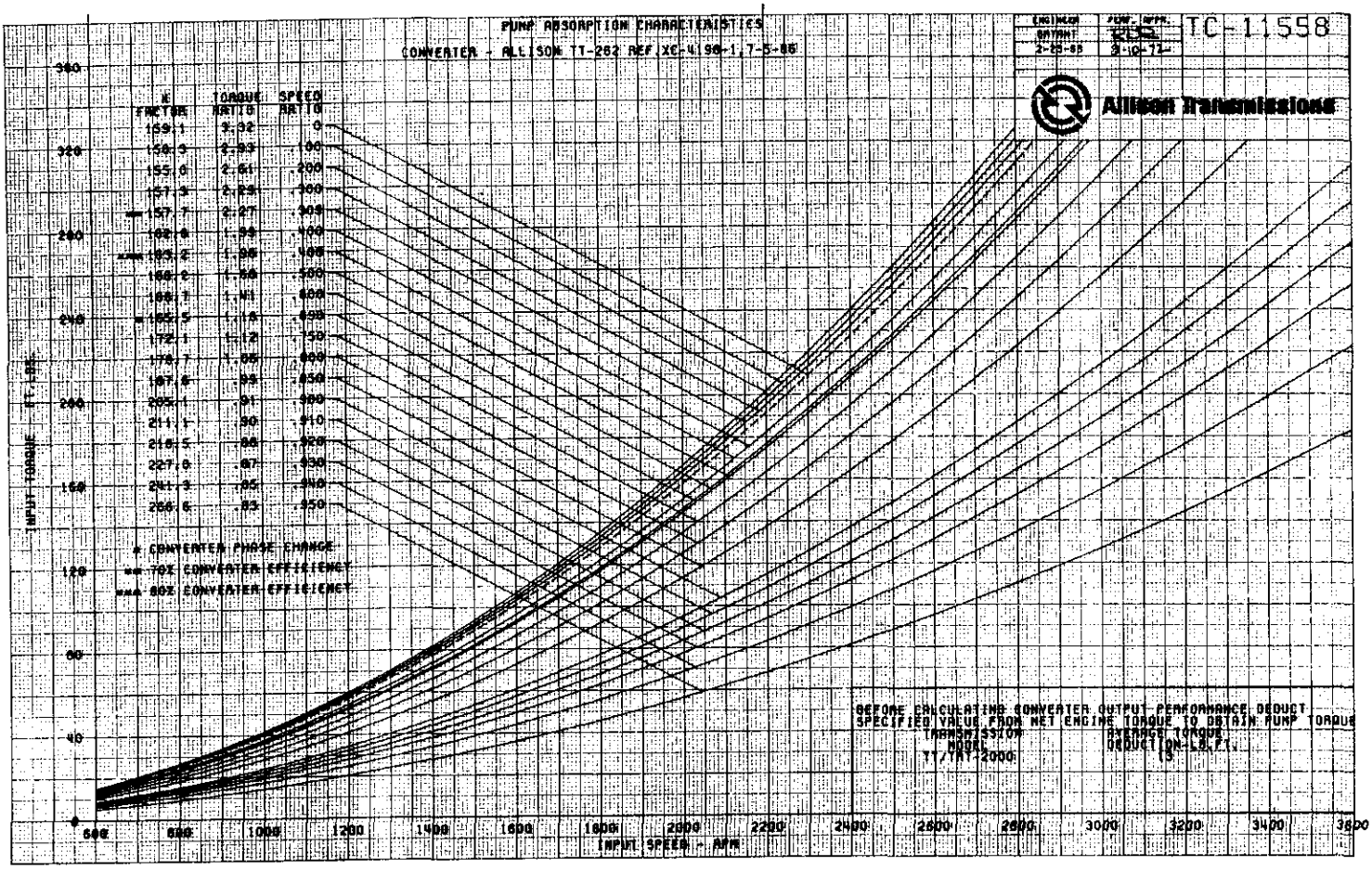
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	5.09					
0.100	4.29					
0.200	3.40					
**0.212	3.30					
0.300	2.64					
***0.316	2.53					
0.350	2.30					
0.400	1.99					
*0.490	1.47					
0.550	1.38					
0.600	1.31					
0.700	1.17					
0.750	1.11					
0.800	1.05					
0.850	0.99					
0.900	0.92					
0.925	0.88					
0.940	0.85					
0.950	0.82					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

SA-1345 11/72

CONVERTER MATCH CHART MODEL NO. TT-262



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

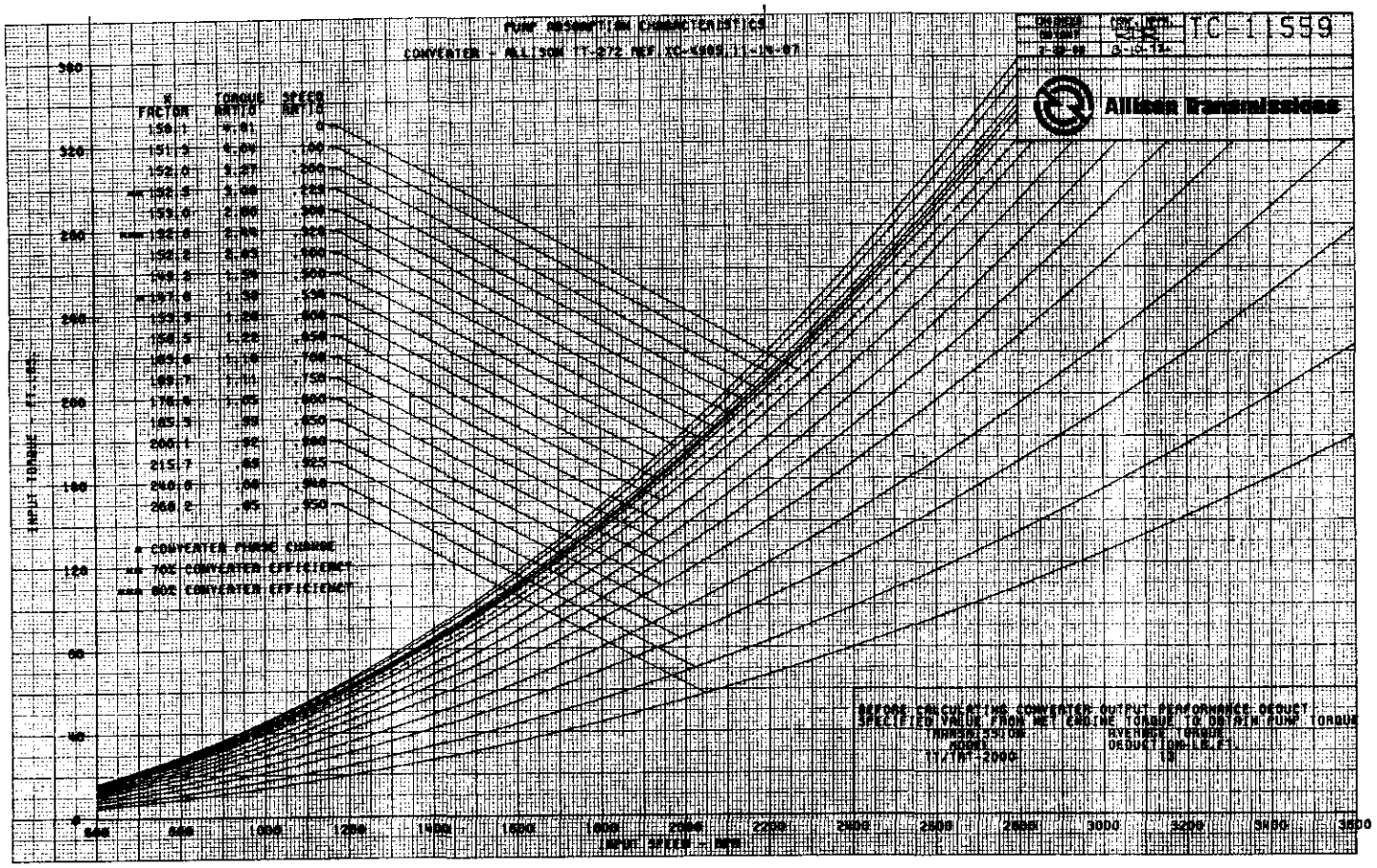
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	3.32					
0.100	2.93					
0.200	2.61					
0.300	2.29					
**0.309	2.27					
0.400	1.99					
***0.408	1.96					
0.500	1.68					
0.600	1.41					
*0.690	1.18					
0.750	1.12					
0.800	1.06					
0.850	0.99					
0.900	0.91					
0.910	0.90					
0.920	0.88					
0.930	0.87					
0.940	0.85					
0.950	0.83					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

SA-1346 11/72

CONVERTER MATCH CHART MODEL NO. TT-272



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

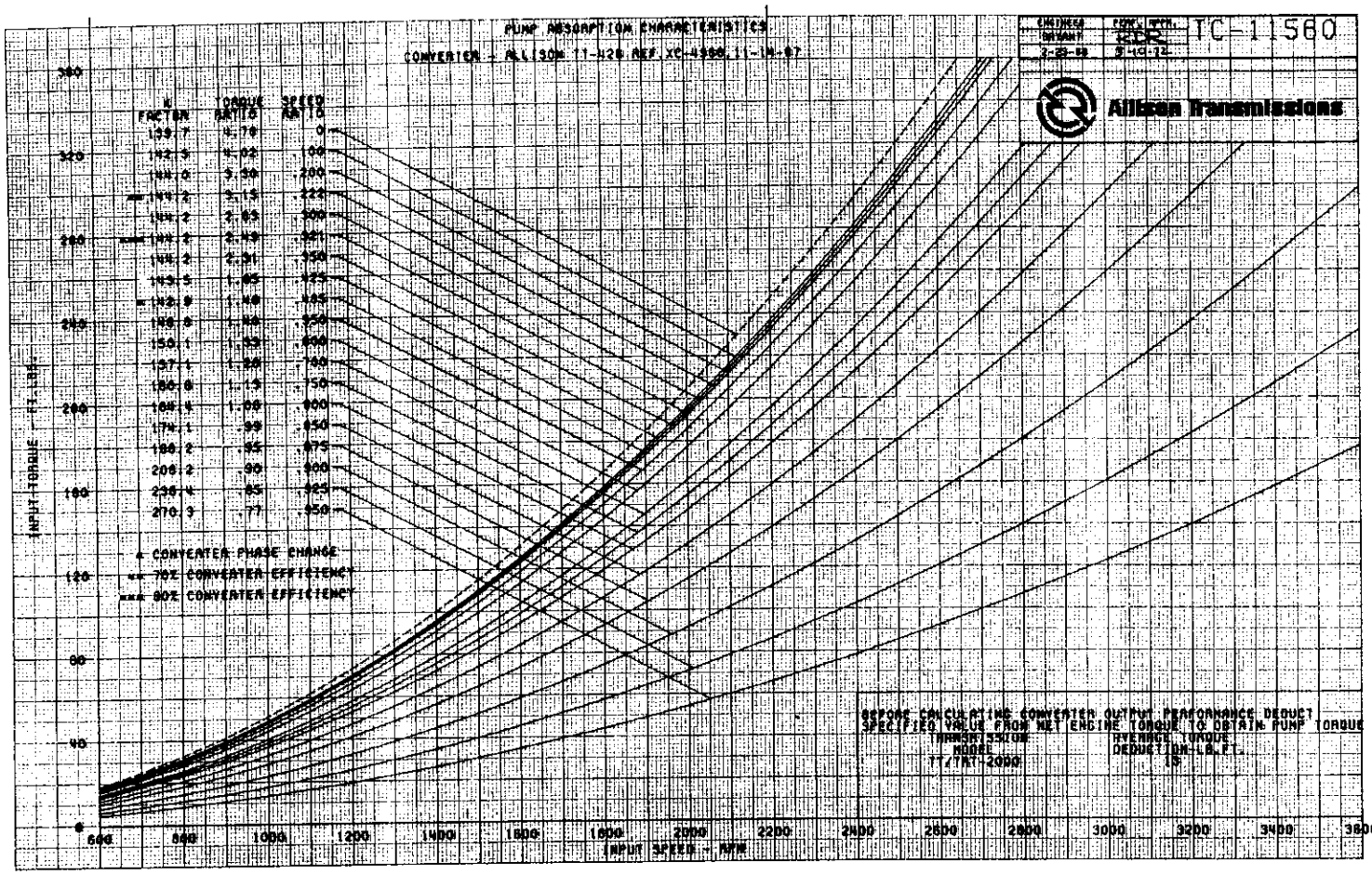
$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	4.81					
0.100	4.04					
0.200	3.27					
**0.229	3.08					
0.300	2.60					
***0.328	2.44					
0.400	2.03					
0.500	1.54					
*0.534	1.38					
0.600	1.28					
0.650	1.22					
0.700	1.16					
0.750	1.11					
0.800	1.05					
0.850	0.99					
0.900	0.92					
0.925	0.89					
0.940	0.86					
0.950	0.85					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

SA-1347 11/72

CONVERTER MATCH CHART MODEL NO. TT-426



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	4.78					
0.100	4.02					
0.200	3.30					
**0.222	3.15					
0.300	2.63					
***0.321	2.49					
0.350	2.31					
0.425	1.85					
*0.485	1.48					
0.550	1.40					
0.600	1.33					
0.700	1.20					
0.750	1.13					
0.800	1.06					
0.850	0.99					
0.875	0.95					
0.900	0.90					
0.925	0.85					
0.950	0.77					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
Division of General Motors Corporation Box 894, Indianapolis, Indiana 46206

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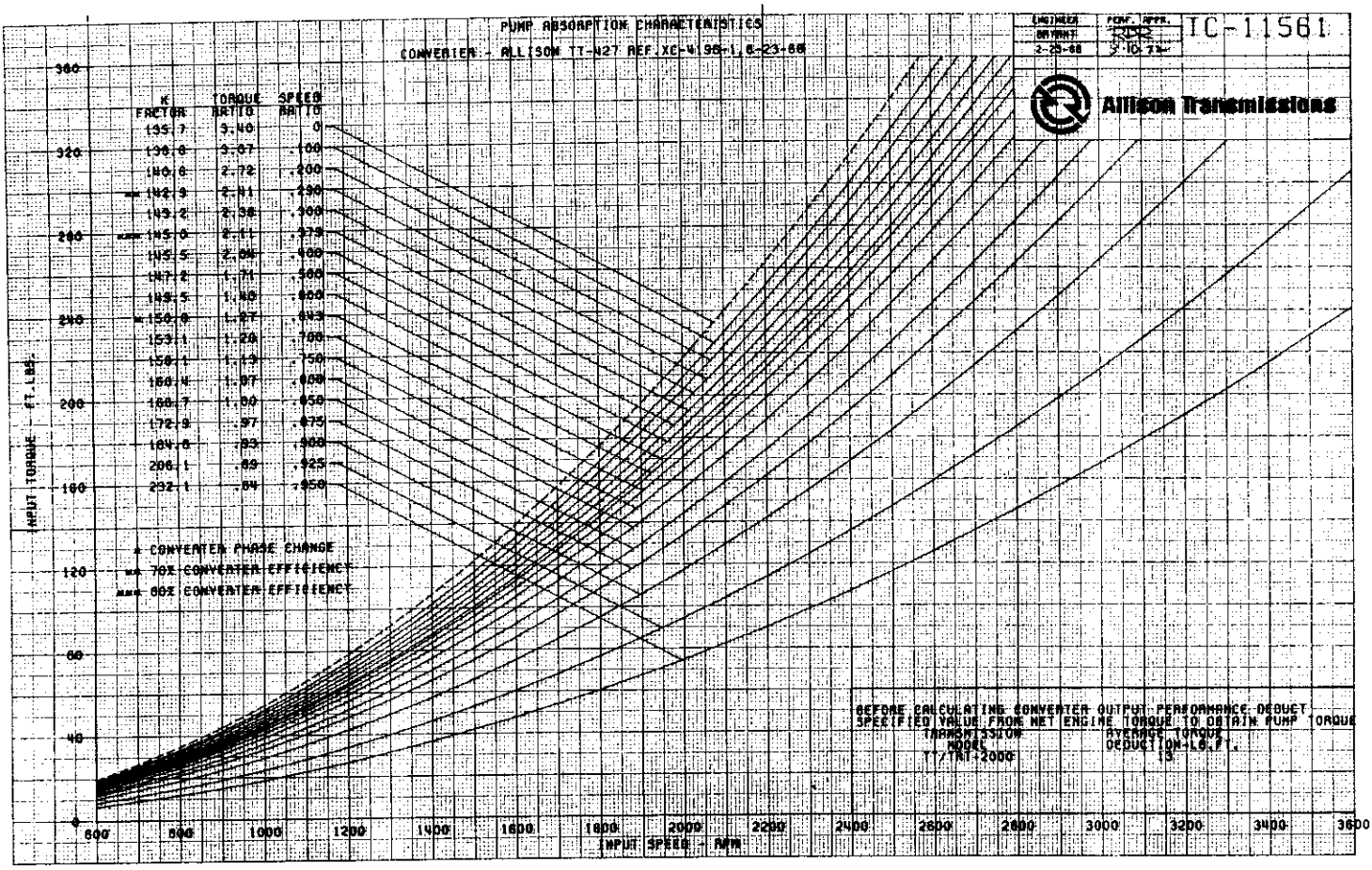
CONVERTER MATCH CHART MODEL NO. TT-427



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	3.40					
0.100	3.07					
0.200	2.72					
**0.290	2.41					
0.300	2.38					
***0.379	2.11					
0.400	2.04					
0.500	1.71					
0.600	1.40					
*0.643	1.27					
0.700	1.20					
0.750	1.13					
0.800	1.07					
0.850	1.00					
0.875	0.97					
0.900	0.93					
0.925	0.89					
0.950	0.84					
*Phase change						
**(70%)						
***(80%)						

Detroit Diesel Allison
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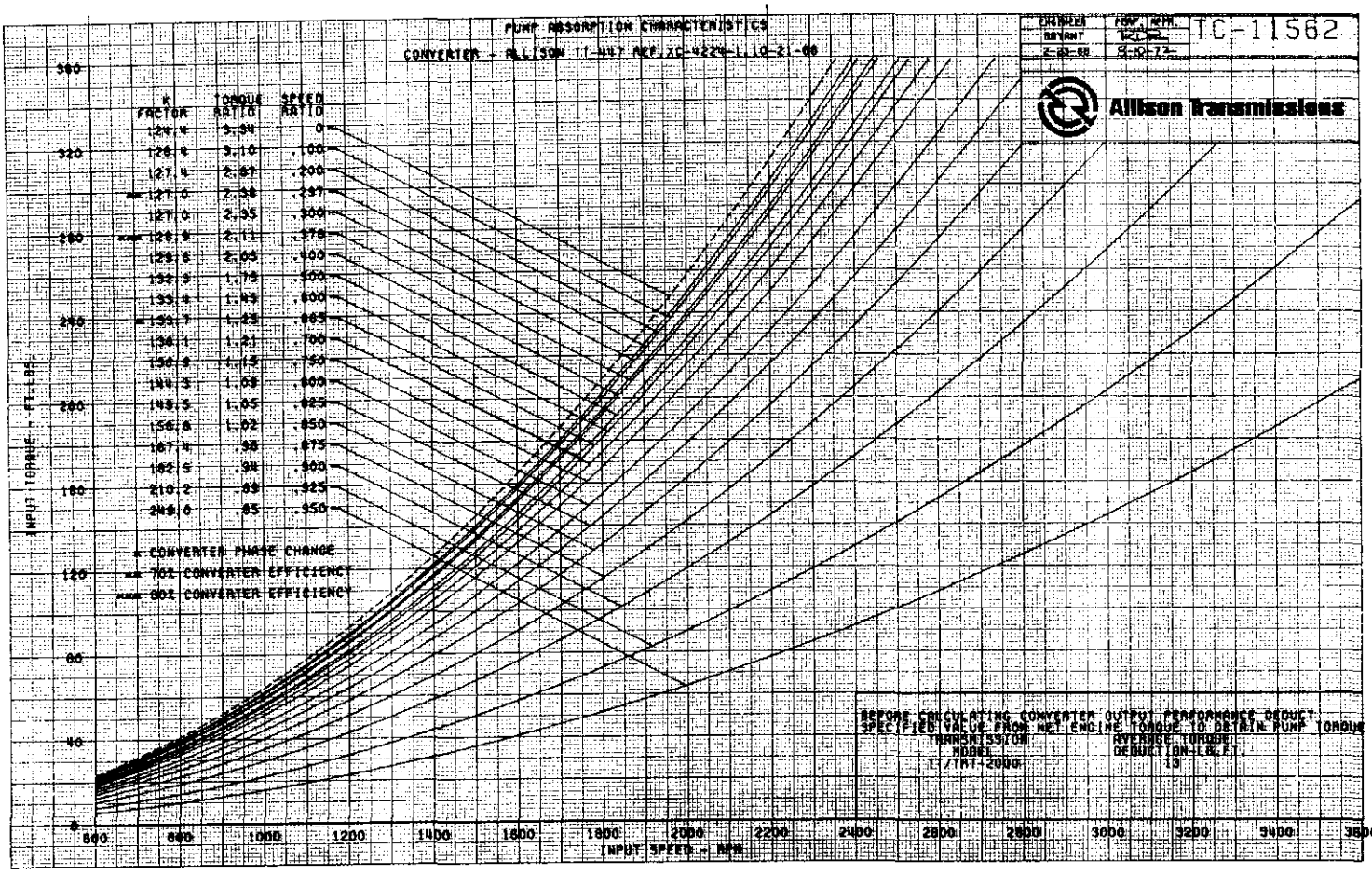
CONVERTER MATCH CHART MODEL NO. TT-447



MATCHING CONVERTER AND ENGINE

The selection of the converter model is based not only on engine power characteristics, but also on the type of equipment to be operated and the work cycle.

To get the best overall performance, the maximum horsepower must be obtained in the most used portion of the converter output speed range.

The torque converter absorption chart shown above represents the absorption and performance characteristics of the converter model indicated.

ENGINE DATA			
Mfr:			
Model:			
Curve No:			
ENGINE		CONVERTER	
Speed (rpm)	Net torque (lb-ft)	Torque deduction (lb-ft)	Input torque (lb-ft)

ENGINE DATA

The data covering the engine characteristics to be recorded must include engine make, model, and curve number.

The column titled "Net torque" must represent gross engine torque minus engine accessories (fan, generator, compressor, hydraulic pumps, etc). Input torque to the converter is obtained by subtracting the converter torque deduction (see lower right-hand corner of absorption chart) from the net engine torque.

This input torque in conjunction with engine speed must be plotted on the converter absorption chart.

CONVERTER INPUT AND OUTPUT CHARACTERISTICS

The converter speed ratios, in relation to engine speed, range from converter turbine stall through the phase change as shown in the absorption chart.

When plotting the input speed and torque on the absorption chart, the accuracy of the plot is most necessary to obtain a true match.

The converter output characteristics can be obtained by compiling the items and steps in the Engine-Converter Match Chart. In some instances it may be convenient to use the converter K-factor when defining converter capacity characteristics. Each speed ratio line is represented by a single K-factor value where:

$$K = \frac{\text{Input speed (rpm)}}{\sqrt{\text{Input torque (lb ft)}}}.$$

ENGINE-CONVERTER MATCH DATA						
CONVERTER		ENGINE INPUT		CONVERTER OUTPUT		
Speed ratio A	Torque ratio B	Speed (rpm) C	Torque (lb-ft) D	Speed (rpm) A x C = E	Torque (lb-ft) B x D = F	Horsepower $\frac{E \times F}{5252}$
Stall	3.34					
0.100	3.10					
0.200	2.67					
**0.297	2.38					
0.300	2.35					
***0.378	2.11					
0.400	2.05					
0.500	1.75					
0.600	1.45					
*0.665	1.25					
0.700	1.21					
0.750	1.15					
0.800	1.09					
0.825	1.05					
0.850	1.02					
0.875	0.98					
0.900	0.94					
0.925	0.89					
0.950	0.85					
*Phase change						
**(70%)						
***(80%)						

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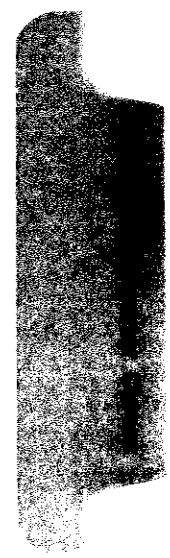


ENGINE-CONVERTER MATCH LISTING

PREPARED BY:

TECHNICAL DATA SECTION

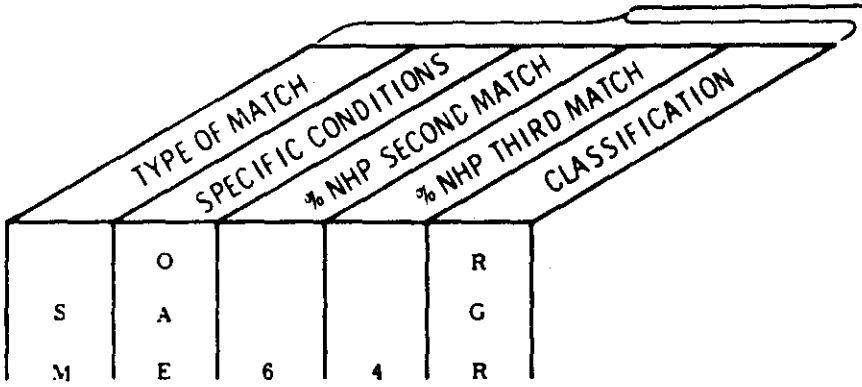
TRANSMISSION ENGINEERING

DETROIT DIESEL ALLISON

MAY 1, 1976

MATCH LISTING GUIDE

ENGINE					CONVERTER		MATCH			TRANS.	MISC.	
MANUFACTURE	MODEL	REFERENCE	NET HP	GOV. RPM	MODEL	NO. OF ELEMENTS	REFERENCE	DATE	STALL RPM	MODEL	REMARKS	IBM CODE



TYPE OF MATCH
- S - SPECIAL
- M - MULTIPLE
- OPEN SPACE INDICATES STANDARD MATCH

SPECIFIC CONDITIONS
- O - OVERLIMIT
- A - ALTITUDE
- E - ENGINEERING STUDY
- D - DERATED
- L - LARGE DED. (OVER 5 HP ABOVE NORMAL ENGINE ACCESSORIES)

% NHP (PERCENT OF NET HP USED FOR SECOND AND THIRD MATCH)
- 1 - 10%
- 2 - 20%
- 3 - 30%
- 4 - 40%
- ETC.

CLASSIFICATION
- G - GENERAL
- R - RESTRICTED

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS		
AL-CHAL	A-C 3500	2984-3	128	2400	TC-350	3	TC-10580	10/05/66	1752			R	34
AL CHAL	AC 21000MK2	3090-3	255	2000	TC560	3	TC-11801	08/27/68	1808	5631			34
AL CHAL	D-262	EE-106A-643	63	2200	TC350	3	TC-10170	03/23/66	1834			R	34
AL CHAL	D-262	CURVE 134	60	2200	TT240	4	TC-7287	07/21/66	2110	1220	M 4	R	34
AL CHAL	D-262	CURVE 155	63	2400	TT240	4	TC-10936	04/06/67	2157	1220	M 4	R	34
AL CHAL	D-262	CURVE 155	63	2400	TT260	4	TC-10938	04/06/67	1969	1220	M 4	R	34
AL CHAL	D-3400	2978-2	93	2100	TC370	3	TC-11850	10/25/68	1534				34
AL CHAL	D-3500	DE-AG-060	136	2200	TT465	4	TC-10875	03/07/67	2150	2420	SO	R	34
AL CHAL	G-262	EE-124A-643	83	2200	TC350	3	TC-10171	03/23/66	2047			R	34
AL CHAM	G-262	TC-11183-2	95	2500	TC350	3	TC-11183	08/03/67	2037	3331	S	R	34
AL CHAL	G-262	LA-016-P	73	2800	TT270	4	TC-10327	06/22/66	1946	2220	SL	R	34
AL CHAL	11000	WJD	159	2200	TT445	4	TC-9934	03/04/66	2217	4420	M 3	R	34
AL CHAL	11000	XC-5175	167	2200	TT445	4	TC-10388	12/08/69	2225	4420	M 4		34
AL CHAL	11000	XC-6154	182	2200	TT445		TC-16138	06/11/74	2236	3421	ML4		34
AL CHAL	11000	XC-6153	211	2200	TT445	4	TC-16107	05/21/74	2248	4720	ML4		34
AL CHAL	11000	WJD	159	2200	TT465	4	TC-10431	07/22/66	2226	4420	M 3	R	34
AL CHAL	11000	XC-6154	182	2200	TT465		TC-16140	06/11/74	2221	3421	ML4		34
AL CHAL	11000	XC-6153	211	2200	TT465	4	TC-16109	05/21/74	2234	4720	ML4		34
AL CHAL	17000 MK II	3128-A	226	2100	TT625	4	TC-12826	07/22/70	2129	TT40	M 3		34
AL CHAL	2500	2954 CURVE 2	293	2100	TT645	4	TC-9841	10/30/67	2245	4621	M 4		34
AL CHAL	25000	NO. 2954-2	233	2100	TT645	4	TC-13146	/ /	2114	4820			34
AL CHAL	25000	NO. 2954-2	233	2100	TT645	4	TC-12371	10/29/69	2114	4820			34
AL CHAL	25000	NO.2954	301	2100	TT645	4	TC-12371	10/29/69	2144	4621	M 5		34
AL CHAL	25000	NO. 2954-2	301	2100	TT645	4	TC-12371	10/29/69	2145	4820			34
AL CHAL	25000-H	3022	442	2100	TC680	3	TC-10257	05/13/66	1729	5960		R	34
AL CHAL	2800	XC-4618	72	2400	TT240	4	TC-10836	02/14/67	2256	1220	ML5	R	34
AL CHAL	2800	3016	72	2800	TT240	4	TC-10014	01/07/66	2228	2220	S	R	34
AL CHAL	2800	XC-4618	72	2400	TT260	4	TC-10838	02/14/67	2058	1220	ML5	R	34
AL CHAL	2800%TL445<	TC-12321-2	65	2400	TT220	4	TC-12321	09/19/69	2359	2220	M 2		34
AL CHAL	2800%TL445<	TC-12321-2	65	2400	TT240	4	TC-12378	10/27/69	2192	2220	M 2		34
AL CHAM	2900	2900 CURVE 1	118	2500	TC360	3	TC-11184	08/03/67	1996	3331	S	R	34
AL CHAL	2900	XC-5173	82	2400	TT240	4	TC-8697	12/08/69	2365	2220	M 3		34
AL CHAL	2900	ENG.FILE 130	94	2400	TT240	3	TC-14218	06/29/72	2411	2221	M 4		34
AL CHAL	2900	ENG.FILE 131	101	2400	TT240	3	TC-14222	06/29/72	2421	2221	M 4		34
AL CHAL	2900	3013	114	2800	TT260	4	TC-10015	01/07/66	2385	2220	S	R	34
AL CHAL	2900	3029	100	2400	TT425	4	TC-10582	11/11/66	2112	2420	S	R	34
AL CHAL	2900	3029	112	2400	TT425	4	TC-10581	11/11/66	2204	2420	S	R	34
AL CHAL	2900	NO.3042-8-7	114	2600	TT425	4	TC-11323	10/11/67	2080	2420			34
AL CHAL	2900 TURBO	XC-4752	105	2600	TC350	3	TC-10250	05/10/66	2124	3331	SL	R	34
AL CHAL	2900 TURBO	XC-4752	105	2600	TT425	4	TC-10248	05/10/66	2104	2420	SL	R	34
AL CHAL	3400	3017	113	2800	TT260	4	TC-10211	04/14/66	2402	2220		R	34
AL CHAL	3400	3017	114	2600	TT425	4	TC-10016	01/07/66	2183	2420	S	R	34

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
AL CHAL	3500	NO 2984	143	2400	TC370	3	TC-10846	02/16/67	1830		SO R	34
AL CHAL	3500	TC10782-2	158	2400	TC420	4	TC-10782	01/19/67	2158	3461	SL6 R	34
AL CHAL	3500	TC-11306-2	131	2200	TT425	4	TC-11306	09/29/67	2229	2420	M 4	34
AL CHAL	3500	ENG.FILE 132	136	2200	TT425	3	TC-14225	06/29/72	2232	2421	M 4	34
AL CHAL	3500	2984	132	2100	TT445	4	TC-11752	07/16/68	2150	4420	M 3	34

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS		5
BEDFORD	220	GMBW1	59	2400	TT240	4	TC-10143	03/07/66	2032	2220	S	R	09
BEDFORD	330	L-24025 8-62	80	2400	TC370	3	TC-11246	08/24/67	1345			R	09
BEDFORD	330	ENG330-2	83	2500	TT230	4	TC-12196	09/29/69	2504	2220	M 3		09
BEDFORD	330	NO.GMBW1-3.6	87	2400	TT240	4	TC-11326	10/13/67	2400	2220	M 3		09
BEDFORD	330	NO.GMBW1-3.6	87	2400	TT240	4	TC-11327	10/13/67	2398	2220	M 5		09
BEDFORD	330	ENG330-2	83	2500	TT240	4	TC-12196	09/29/69	2341	2220	M 3		09
BEDFORD	330	L-24025	83	2600	TT260	4	TC-10030	01/13/66	2125	2220	SA	R	09
BEDFORD	330T	XC-4936	109	2500	TT240	4	TC-11302	09/28/67	2517	2220	MM4	R	09
BEDFORD	350-H	FILE NO. 032	108	2800	TT427		TC-16728	01/22/75	2004	2421			09
BEDFORD	466	TC10903-2	107	2600	TC360	3	TC-10903	03/20/67	1913	3331	SO	R	09
BEDFORD	466	ENG 466-4-1	120	2450	TT260	4	TC-12199	06/24/69	2451	2220	M 3		09
BEDFORD	466-CI	P-0054	107	2300	TT260	4	TC-11632	04/16/68	2312	2220	M7		09
BEDFORD	70	130NHP-2400	114	2400	TT425	4	TC-11425	11/30/67	2208	2420			09

E MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	6
BERLIET	MIS-645-50	423169	290	2200	TC540	3	TC-10321	06/10/66	1950	5631	R	20
BERLIET	MS640	199168 GBO	233	1800	TC580	3	TC-11353	11/01/67	1460			20
BERLIET	M640	169908	193	1800	TC560	3	TC-11352	11/01/67	1634			20
BERLIET	TBE-12	NO.199155	186	2200	TC450	3	TC-10943	04/07/67	1892	HT70	R	20

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS		
CAT	D-320-A-TAC	320A-95	88	2400	TC350	3	TC-10219	04/18/66	2134			R	04
CATPLR	D-320A-T	320A-194	71	2400	TT260	4	TC-10657	12/12/66	2062	2220	SL	R	04
CAT	D-330	D-330B-26	140	2200	TC370	3	TC-10405	07/13/66	1764	3531		R	04
CAT	D-330	TC-12977-3	69	2400	TT220	4	TC-12977-1	09/08/70	2393	2220	ML2		04
CAT	D-330	TC-12977-3	69	2400	TT230	4	TC-12978-2	09/08/70	2361	2220	ML2		04
CAT	D-330 NA	D-330A-33-A	75	2200	TT425	4	TC-10521	09/02/66	1916	2420		R	04
CAT	D-330A	D330A-322	107	2200	TC360	3	TC-10882	03/13/67	1993	3331	SL	R	04
CAT	D-330A-NA	D-330A-359	71	2200	TT425	4	TC-10608	10/12/66	1903	2420		R	04
CAT	D-330A-T	D-330A-365	100	2200	TT445	4	TC-10709	12/06/66	1900	2420		R	04
CAT	D-330A-TAC	330A-322	107	2200	TT425	4	TC-10956	04/14/67	2193	2420	SL	R	04
CAT	D-333C	175 GHP	161	2200	TC450		TC-11675	05/14/68	1764				04
CAT	D-333C-NA	150 GHP	138	2200	TC-450	3	TC-11676	05/14/68	1700				04
CAT	D-333C-T	235GHP	216	2000	TC450		TC-11674	05/14/68	2023				04
CAT	D-333C-T	235 GHP	216	2000	TC470		TC-11673	05/14/68	1882				04
CAT	D-333T	XC-5119	100	2200	TC550	3	TC-12212	06/26/69	BRAK	ING	S		04
CAT	D-334TA	268	243	2100	TC570		TC-16514	10/30/74	1716				04
CAT	D-336	D-336-31	330	2200	TC570	3	TC-12143	05/15/69	1917				04
CAT	D-336-TA	D336-15	265	2000	TC560	3	TC-12803	05/05/70	1845				04
CAT	D-342C-T	D342C-203	270	1280	CATDH8		TC-14197	05/24/72	1060	DH-8	S		04
CAT	D-343 TAC	0343-269	391	2000	TC580		TC-16306	08/07/74	1800	5860			04
CAT	D-343-TA	TC-11545-2	428	2000	TC680	3	TC-11545	02/13/68	1763	6061	SM		04
CAT	D-343-TA	343A-176	304	2000	TC850	4	TC-14182	05/16/72	1805				04
CAT	D-343A-RW	D343A-235	338	1800	TC950	4	TC-11180	08/02/67	1582			G	04
CAT	D-343T	343-87	304	2000	TC850	4	TC-8476	04/09/66	1735			R	04
CAT	D-346	D346-28	452	1800	TC940	4	TC-12828	05/20/70	1764				04
CAT	D-346	D-346-28	452	1800	TC940	4	TC-12828	04/15/74	1769				04
CAT	D-346	D346-28	452	1800	TC950	4	TC-16046	04/15/74	1820				04
CAT	D-348	XC-5192	828	2000	TC880	4	TC-12555	01/27/70	2200	8961			04
CAT	D-348-JWAC	D348-6	736	2000	TC860	3	TC-13540	08/19/71	1787	8961			04
CAT	D-348TA	XC-6186	347	1800	TC955		TC-16764	02/06/75	1611				04
CAT	D330A-T	D330A-360	103	2200	TC360	3	TC-11214	08/16/67	1938	3331		R	04
CAT	D330C-NA	D33DC-NA-123	87	2200	TT240	4	TC-13639	09/24/71	2230	2211	M 5		04
CAT	D330C-NA	D33DC-NA-123	87	2200	TT425	4	TC-13641	09/24/71	2021	2421			04
CAT	D330C-NA	D33DC-NA-123	87	2200	TT427	4	TC-13621	09/14/71	1979	2421	M 5		04
CAT	D330D-NA	D330C-34	90	2200	TC350	3	TC-11697	06/05/68	2069	3331			04
CAT	D334 JW	D334-JW-24	245	2200	TC570		TC-16372	09/06/74	1690	5860			04
CAT	D334 TA	LE021236-00	257	2200	TC570		TC-16371	09/06/74	1630	5860			04
CAT	D334-JW	D334-JW-24	252	2200	TC470	3	TC-13768	11/26/71	1954	4460			04
CAT	D334-JW	D334-51	270	2200	TC470	3	TC-13769	11/26/71	2010	4460			04
CAT	D334-JW	D334-JW-24	252	2200	TC550	3	TC-13770	11/26/71	1927				04
CAT	D334-JW	D334-51	270	2200	TC550	3	TC-13771	11/26/71	1981				04
CAT	D343 T.A.	XC-5976	398	2100	ROCKFD	3	TC-13805	12/07/71	1860	OSHK	M 5		04

E... MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS		
CAT	D343 TA	D343-269	391	2000	TC499		TC-16373	09/06/74	1760	750	OL		04
CAT	D343A	D343A-214	365	2000	TC840	4	TC-10798	01/27/67	1802			R	04
CAT	D343A-JWAC	D343A-229	339	2000	TC840	4	TC-10854	02/27/67	1766			R	04
CAT	D343JWAC	D343-JWAC311	351	1800	TC950	3	TC-14623	10/06/72	1671				04
CAT	D343TA	PC-821	405	2000	TC680	3	TC-15655	11/07/73	1727	6061			04
CAT	D348	D348-JW-56	782	2000	TC860	3	TC-14758	11/20/72	2158	8961			04
CAT	D348	TC-12580-2	617	2000	TC880	4	TC-12580-1	02/11/70	2133	8961			04
CAT	D348-JWAC	D348-13	812	2000	TC880	3	TC-12425	11/24/69	1738	8961			04
CAT	D348VEH.ARR	D348-50	850	2000	TC890	3	TC-12426	11/24/69	1667	8961			04
CAT	RM-233	6-66	823	2000	TC890	3	TC-10408	07/14/66	1613	8960		R	04
CAT	RM-233	TC-10183-2	900	2000	TC890	3	TC-10183	03/31/66	1590	8960		R	04
CAT	RM233	RM233-5.4-T1	685	2000	TC880	3	TC-10598	10/07/66	1635	8860	E	R	04
CAT	RM233	XC-4791	809	2000	TC880	3	TC-10549	09/14/66	1722	8960	E	R	04
CAT	V12 730NHP	4444.1	730	2000	TC880	3	TC-11175	07/31/67	1686	8960		R	04
CAT	V12 820NHP	4444.2	820	2000	TC880	3	TC-11176	07/31/67	1758	8960		R	04
CAT	0336-JWAC	D336-JWAC-78	240	2100	TC540	3	TC-12830	07/27/70	1952				04
CAT	109 NHP	TC-12602-2	109	2200	TC360	3	TC-12603	02/18/70	2340		SE		04
CAT	109 NHP	TC-12602-2	109	2200	TC370	3	TC-12602	02/18/70	2340				04
CAT	1673-B	1673-45	231	2200	TC470	3	TC-10111	02/16/66	1913			R	04
CAT	1673-JW	1673-48	222	2200	TC470	4	TC-10454	07/29/66	1871	4460	S	R	04
CAT	1673C	PRELIM 273HP	246	2200	TC470	3	TC-11350	11/01/67	1928	HT70			04
CAT	1673C-T	1673C-T-175	225	2200	TC470	3	TC-13501	07/14/71	1897	4460			04
CAT	1673C-T	1673C-T-175	225	2200	TC490	3	TC-13501	07/14/71	1635	4460			04
CAT	1674	1674-TA-19	256	2200	TC470	3	TC-12778	03/24/70	2200	4460			04
CAT	1674	310 GHP 2200	279	2200	TC470	3	TC-11362	11/10/67	2025	HT70			04
CAT	1674	1674-TA-19	256	2200	TC490	3	TC-12778	07/14/71	1683	4460			04
CAT	1674-JWAC	1674-30	246	2200	TC470	3	TC-13611	09/10/71	1964	4460			04
CAT	1674-JWAC	1674-30	246	2200	TC490	3	TC-13611	09/10/71	1726	4460			04
CAT	1676	NO.1676-31	279	2200	TC570	3	TC-11280	09/19/67	1867		M 9	R	04
CAT	1693	1693-20	352	2000	TC680	3	TC-11655	05/06/68	1624	6061			04
CAT	1693	1693-7	399	2000	TC690	3	TC-9232	05/13/66	1671	5960		R	04
CAT	1693 TAC	D343A-200	400	2000	TC690	3	TC-10945	04/10/67	1671	5960		R	04
CAT	1693-TA	PC-1243	337	2100	TC690	3	TC-15453	09/18/73	1569	5960			04
CAT	3145	3145-22	98	2400	TC360	3	TC-12992	09/16/70	1899	3331	SL		04
CAT	3160	V-225,9-9-68	188	2800	TC420	3	TC-12648	03/02/70	3100	3461	O		04
CAT	3304T	D330C-T-136	139	2200	TC420	3	TC-5588	06/27/73	2080	3441			04
CAT	3306 TURBO	CURVE 317-6	225	2200	TC450	4	TC-15161	05/25/73	2084				04
CAT	3306 TURBO	CURVE 317-6	225	2200	TC470	4	TC-15161	05/25/73	1860				04
CAT.	3406	TC-12876	286	2100	TC495		TC-16413	09/19/74	1770	4460			04
CAT.	3406	TD0022-01	299	2100	TC950		TC-16418	09/19/74	1541				04
CAT	50 NHP	TC-12605-2	50	2400	TC350	3	TC-12605	02/18/70	2510				04
CAT	53 NHP	TC-12604-2	53	2400	TT230	4	TC-12604	02/18/70	2510		SE		04

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	9
CAT	550 EXP	A-4424-30	495	2500	TC680	3	TC-9278	05/13/66	1834	6061	SL R	04
CAT	69 NHP	TC-12599-2	69	2200	TT240	4	TC-12600	02/18/70	2375		SE	04
CAT	69 NHP	TC-12599-2	69	2200	TT260	4	TC-12599	02/18/70	2375		SE	04
CAT	77 NHP	TC-12601-2	77	2000	TC350	3	TC-12601	02/18/70	2130			04

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
CHRY	H-318	H-318-8-25CR	87	2400	TT260	4	TC-10069	01/31/66	2126	1220	M 8 R	05
CHRY	H-318	ENG FILE 012	94	2200	TT425	4	TC-16078	04/01/74	1943	2421		05
CHRY	HB-318	J.C.C.	114	2800	TT260	4	TC-10930	04/03/67	2304	2220	SL R	05
CHRY	HT-361	2-24-61	142	2800	TC350	3	TC-10852	02/21/67	2324	3331	R	05
CHRY	HT-361	HT-361	139	2600	TC360	3	TC-10006	01/03/66	2021	3331	R	05
CHRY	HT-413	HT-413-V8	130	2600	TC350	3	TC-10300	06/07/66	2280	3331	SD R	05
CHRY	HT-413	XC-4735	187	2800	TC420	4	TC-10204	04/11/66	2151	3441	R	05
CHRY	IND 32	C.I,11-11-63	88	2400	TC350	3	TC-12774	03/20/70	1990	NONE		05
CHRY	IND. 32	C.I. PISTONS	88	2400	TC250	3	TC-11231	08/22/67	1531			05
CHRY	IND. 32	IND32 11-63	71	2400	TT260	4	TC-10760	01/04/67	1932	2220	M 4 R	05
CHRY	IND-32	IND-32-CURVE	71	2400	TT220	4	TC-10082	02/07/66	2408		M 4 R	05
CHRY	IND-32	11-11-63	85	2500	TT240	4	TC-10235	04/28/66	2337	1220	M 8 R	05
CHRYSLE	LH-318	FILE NO. 085	145	2800	TC360		TC-16987	06/06/75	2000	3331		05
CHRY	318-1V8	CURVE 9-8	100	2800	TT260	4	TC-10496	08/24/66	2141	1220	SL R	05
CHRY	361-2	XC-4750	142	3000	TT240	4	TC-10242	05/09/66	2778	2220	SL R	05
CHRY	413-2	ENG-26-0465	174	3000	TC350	3	TC-10244	05/09/66	2507	3331	SL R	05
CHRY	413-3	26-ENGINES	183	3000	TC350	3	TC-10246	05/09/66	2575	3531	SL R	05

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	II
CONT	D162H	SP-3132	085	3000	TC256	3	TC-13476	07/08/71	1323			06
CONT	F-244	DMC-6562	65	2400	TT260	4	TC-10080	02/07/66	1905	1220	M 7 R	06
CONT	F-244	SP-760	75	2500	TT260	4	TC-10373	06/28/66	2020	1220	S R	06
CONTNTL	F-244SP	SP-2042	67	2400	TT240	4	TC-10604	10/12/66	2156	2220	R	06
CONTNTL	F-245	6010	63	2000	TC250	3	TC-10118	02/23/66	1498		L R	06
CONT.	F-245	6010,12-64	62	2000	TC350	3	TC-12773	03/20/70	1820	NONE		06
CONT	F-245	DSI 9466	67	2600	TT240	4	TC-10941	04/07/67	2094	1220	SL R	06
CONT.	F-245	DSI-4366	72	2400	TT270	4	TC-11432	12/11/67	1985	2220		06
CONT	F245	CURVE 6010	67	2200	TC350	3	TC-13982	02/28/72	1898			06
CONT	LD-465-1	LD645-1-1214	112	2600	TC370	3	TC-11100	06/27/67	1516	3331		06
CONT	LD-465-1	LD645-1-1214	112	2600	TT425	4	TC-11099	06/27/67	2140	2420		06

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
CUMMINS	C-105	C-872-B	68	2100	TT240	4	TC-10087	02/07/66	2116	1220	M 3 R	07
CUMMINS	C-160	RC-1639	103	2000	TC370	3	TC-10105	02/16/66	1659		R	07
CUMMINS	C-160	C-860-C	123	2060	TC370	3	TC-10106	02/16/66	1704		R	07
CUMMINS	C-160	C-1888	139	2200	TC370	3	TC-10285	06/10/66	1802		R	07
CUMMINS	C-160	NC-3102	125	2500	TT425	4	TC-12146	05/16/69	2290	2420	O	07
CUMMINS	C-160-CI	C-860-C	130	2500	TC-360	3	TC-10583	04/27/66	2078	3331	SL R	07
CUMMINS	C-160-CI	C-860-C	130	2500	TC370	3	TC-10370	06/28/66	1652	3531	SL R	07
CUMMINS	C-175	C-939-C	130	2500	TC350	3	TC-10322	06/10/66	2385		S R	07
CUMMINS	C-175	C-939-D	146	2500	TC350	3	TC-11574	03/05/68	2450	3531	M 7	07
CUMMINS	C-175	C-9390, 6-62	130	2500	TC350D	3	TC-12626	02/19/70	2675			07
CUMMINS	C-175	C-939-D	146	2500	TC370	3	TC-11576	03/05/68	1718	3531	M 7	07
CUMMINS	C-175	C-939-C	150	2500	TC370	3	TC-10590	10/03/66	1778		L R	07
CUMMINS	C-175 CI	C-939-B	147	2500	TT425	4	TC-11321	10/10/67	2423	4420	M 5	07
CUMMINS	C-180	C-1142-B	140	2500	TC350	3	TC-10892	03/16/67	2415	3531	ML64R	07
CUMMINS	C-180	C-1142-B	140	2500	TC360	3	TC-10949	04/10/67	2130	3531	M 64R	07
CUMMINS	C-180		145	2500	TC360	3	TC-11575	03/05/68	2154	3531	M 7	07
CUMMINS	C-180	C-1142-B	156	2500	TC360	3	TC-10729	12/21/66	2221	3531	R	07
CUMMINS	C-190	C-2547	171	2500	TC420	4	TC-10236	04/29/66	2197	3441	R	07
CUMMINS	C-860	C-860-C	139	2500	TC360	3	TC-11174	07/31/67	2106	3331	R	07
CUMMINS	CR-160	C-1888	130	2100	TC430	3	TC-10311	06/07/66	1909		SL R	07
CUMMINS	CR-160-CI	C-1888-1	130	2200	TC370	3	TC-11255	08/30/67	1762	3531		07
CUMMINS	CS-195	P-2767	150	2500	TC340	3	TC-11802	09/04/68	2506	3630	M 7	07
CUMMINS	CS-195	C-2794	154	2500	TC350	3	TC-11810	09/06/68	2501	3531	M 7	07
CUMMINS	CS-195	P-2767	150	2500	TC360	3	TC-11501	01/31/68	2174	3630	M 6	07
CUMMINS	CS-195	C-2794	154	2500	TC360	3	TC-11811	09/06/68	2207	3531	M 7	07
CUMMINS	CS-195	C-2794	168	2600	TC420	4	TC-11800	08/30/68	2153	3441		07
CUMMINS	CS-464	C2794-8	156	2500	TC360	3	TC-12741	05/08/72	2256	3630	M	07
CUMMINS	CS-464%195<	C-2794-A	150	2500	TC360	3	TC-12741	03/16/70	2187	3630	M 64	07
CUMMINS	J-401C-110	C-653-A	70	2200	TC350	3	TC-12579	02/11/70	1862	3331		07
CUMMINS	J-401C-130	C-654-F	86	2400	TC350	3	TC-12582	02/13/70	1984	3331		07
CUMMINS	JF-6	C-653-C	80	2100	TT240	4	TC-10762	01/04/67	2136	2220	M 4 R	07
CUMMINS	JF-6	C-653-C	80	2100	TT260	4	TC-10088	02/07/66	2109	2220	M 4 R	07
CUMMINS	JF-6	C-653-C	80	2100	TT425	4	TC-10764	01/04/67	1980	2420	M 4 R	07
CUMMINS	JN-130	C-654-E	112	2500	TC350	3	TC-10232	04/27/66	2202	3331	R	07
CUMMINS	JN-130	TC-10232	103	2100	TC370		TC-16271	07/22/74	1696			07
CUMMINS	JN-130	C-654-E	112	2500	TC420	4	TC-10237	05/04/66	1847	3341	R	07
CUMMINS	JN-130	C-654-E	100	2500	TT260	4	TC-10281	05/27/66	2294	2220	SL R	07
CUMMINS	JN-130	C-654-D	98	2200	TT425	4	TC-11095	06/23/67	2116	2220	M 4 R	07
CUMMINS	JN-130	C-654E	91	2500	TT425	4	TC-10905	05/24/67	2033	2420	M 3 R	07
CUMMINS	JN-130	C-654-E	106	2500	TT425	4	TC-11609	04/02/68	2127	2220		07
CUMMINS	JN-130	C-654-E	106	2500	TT425	4	TC-11677	05/14/68	2125	2220	PTO	07
CUMMINS	JN-130	C-654-E	106	2500	TT426	4	TC-11678	05/14/68	2125	2220	OPTO	07

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	13
CUMMINS	JNR-100	C-1937	86	1800	TC370	3	TC-10962	04/13/67	1572		G	07
CUMMINS	KT-1150	C-3189-C	315	2100	TC680		TC-16321	08/19/74	1642	6061		07
CUMMINS	KT-1150-450	P-3380	405	2100	TC580	3	CURVE M0432	03/28/72	1800	5860		07
CUMMINS	KT-1150-450	P-3380	405	2100	TC590	3	CURVE M0433	03/28/72	1700	5860		07
CUMMINS	KT-1150-450	P-3380	450	2100	TC590		TC-16187	03/28/72	1800	5860		07
CUMMINS	KT-1150-450	P-3380	405	2100	TC690	3	CURVE M0501	07/18/72	1650	5960		07
CUMMINS	KT-1150C450	C-3380-B	414	2100	TC590	3	TC-16021	04/01/74	1765	5860		07
CUMMINS	KT-1150C450	C-3380-B	414	2100	TC590		TC-16187	06/25/74	1760	5800		07
CUMMINS	KT-11502450	P-3380	405	2100	TC680	3	CURVE M0500	07/18/72	1700	5960		07
CUMMINS	KTA-115060D	P-3452	552	2100	TC680	3	CURVE M0536	11/10/72	1900	5960		07
CUMMINS	KTA23001050	P-3501	944	2100	TC890		TC-16135	06/11/74	1712	8961		07
CUMMINS	KTA23001200	P-3387	1080	2100	TC890		TC-16136	06/11/74	1817	8961		07
CUMMINS	KT1150	P-3380	414	2100	TC590		TC-16414	09/19/74	1749	5860		07
CUMMINS	KT2300-C900	P-3386-A	810	2100	TC880		TC-16134	06/11/74	1715	8961		07
CUMMINS	N-743%220<	C-660-F	191	2100	TC470	3	TC-12374	10/27/69	1735	4460		07
CUMMINS	N-855-B250	C-1163-C	209	2100	TT465	4	TC-12747	03/16/70	2158	4420	M 65	07
CUMMINS	N-855-B250	C-1163-C	209	2100	TT470	4	TC-12749	03/16/70	2155	4420	MD65	07
CUMMINS	N-855-C250	C-1163-E	221	2100	TC470		TC-16492	10/24/74	1826	4460		07
CUMMINS	N-855-C250	C-1163-E	221	2100	TC490		TC-16493	10/24/74	1598	4460		07
CUMMINS	N-855-P175	XC-62101	154	2100	TC470		TC-16861	04/14/75	1630			07
CUMMINS	N-855-P220	XC-62101	203	2100	TC470		TC-16860	04/14/75	1810			07
CUMMINS	N-855C-250	C-1163-C	190	2100	TC530	3	TC-12537	01/12/70	1985	5631	ML4	07
CUMMINS	NH 220	C-660-E	184	2100	TT465	4	TC-10639	10/31/66	2153	4420	M 6 R	07
CUMMINS	NH-180	C-812-A	136	2100	TC360	3	TC-11042	05/16/67	2118	3531	M 5 R	07
CUMMINS	NH-220	C-660-E	187	2100	TC550	3	TC-11796	08/23/68	1684			07
CUMMINS	NH-220	C-660-E	174	2100	TT645	4	TC-10353	06/21/66	1902	4621	S R	07
CUMMINS	NH-250	C-1163-C	216	2100	TC470	3	TC-11405	11/28/67	1842	4460		07
CUMMINS	NH-250	C-1163-C	209	2100	TT465	4	TC-11499	01/31/68	2158	4420	M 6	07
CUMMINS	NH-250	C-3312	207	2100	TT645	4	TC-14499	08/11/72	2048	4621		07
CUMMINS	NHC-225	C-2573	188	2100	TC450	3	TC-11597	03/29/68	1927	HT70	M9	07
CUMMINS	NHC-250	C-2573	207	2100	TC470	3	TC-11599	03/29/68	1810	HT70	L	07
CUMMINS	NHC-250	C-2573	207	2100	TC470	3	TC-11628	04/11/68	1812	HT70	M9	07
CUMMINS	NHCT-270	C-2811-A	236	2100	TC470	3	TC-11892	11/27/68	1908	HT70	M 9	07
CUMMINS	NHRS-6 CI	C-662-B	235	2100	TC470	3	TC-11589	03/21/68	1906	4460	L	07
CUMMINS	NHRS-6 CI	C-662-B	235	2100	TC490	3	TC-11588	03/21/68	1616	4460	L	07
CUMMINS	NH220	C-660-E	184	2100	TC540	3	TC-11906	12/05/68	1705			07
CUMMINS	NT-310	C-1905-A	257	2100	TT620	4	TC-10141	03/04/66	2148	4621	M 5 R	07
CUMMINS	NT-310 LTD.	S.610, 1-69	287	2100	TC490	3	TC-12724	03/11/70	2300	4460		07
CUMMINS	NT-380	C-1119-C	272	2300	TC470	3	TC-10225	04/20/66	1989	4460	S R	07
CUMMINS	NT-380	C-1119-D	321	2300	TC530	3	TC-11666	05/07/68	2326	5631	M6	07
CUMMINS	NT-380	C-1119-D	311	2300	TC560	3	TC11914	12/13/68	1854	5631		07
CUMMINS	NT-380	C-1119-D	342	2300	TC570	3	TC11996	02/18/69	1890	5860		07

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	14
CUMMINS	NT-855-B310	NC-3032	275	2200	TT470	4	TC-12757	03/16/70	2267	4421	MM52	07
CUMMINS	NT-855-B310	NC-3032	270	2100	TT625	4	TC-12755	03/16/70	2147	4621	M 52	07
CUMMINS	NT-855-C	C-1485D	301	2100	TC495	3	TC-15956	02/16/74	1763	4460		07
CUMMINS	NT-855-310	NC-3032	290	2100	TC490	3	TC-12416	11/24/69	1802	4460		07
CUMMINS	NT-855-310	C-1905-B	250	2100	TC540	3	TC-12829	05/21/70	1947			07
CUMMINS	NT-855-310	NC-2889	290	2100	TC560	3	TC-13362	03/23/71	1872		S	07
CUMMINS	NT-855-310	NC-2889	290	2100	TC560	3	TC-13362	03/23/71	1840		S	07
CUMMINS	NT-855-335	C-1485-B	281	1800	TC580	3	TC-12637	02/26/70	2000			07
CUMMINS	NTA 855	TC-15398	378	2300	TC495		TC-16385	09/11/74	1889	750		07
CUMMINS	NTA-855	C-1119-F	349	2300	TC550		TC-16330	08/16/74	2147	5860		07
CUMMINS	NTA-855-380	C-1119-D	380	2100	TC840	4	RC-2987	08/16/68	1640		D	07
CUMMINS	NTA-855-420	P-2744-A	345	2300	TC460	3	TC-12819	05/19/70	2249	CT75	M 85	07
CUMMINS	NTA-855-420	P-2744-A	345	2300	TC496	3	TC-12807	05/07/70	1976	CT75	M 85	07
CUMMINS	NTA-855-420	P-2744	349	2300	TC570	3	TC-12558	02/02/70	2530	5860		07
CUMMINS	NTA-855-420	P-2744-A	345	2300	VTC550	3	TC-12482	12/06/69	2178	5865	M 85	07
CUMMINS	NTA-855C420	NTA-855-C420	333	2300	TC530	3	TC-15310	07/11/73	2326	5631		07
CUMMINS	NTA-855C420	C-3507	380	2100	TC590	3	TC-16039	04/10/74	1680	5631	O	07
CUMMINS	NTC-290	C-3571	266	2100	TC560		TC-17016	06/16/75	1840			07
CUMMINS	NTC-335	C-2354	301	2100	TC490	3	TC-9423	05/10/68	1836	HT70		07
CUMMINS	NTC-335	C-2354,6-64	302	2100	TC490	3	TC-10861	12/22/69	1835	4460		07
CUMMINS	NTC-335	C-1485-A	285	2100	TC550	3	TC-11522	02/01/68	2020	5631	M 6	07
CUMMINS	NTC-335	C-2354-B	295	2100	TC560	3	TC-15030	03/20/73	1891	5631		07
CUMMINS	NTC-335	C-2354	279	2100	TT625	4	TC11981	02/07/69	2150	4621	M6	07
CUMMINS	NTC-350	C-3380-B	405	2100	TC580		TC-16320	08/19/74	1729	5860		07
CUMMINS	NTO-6	C-495-D	231	2000	VT*490	3	TC-11621	04/09/68	1718	4460	M7	07
CUMMINS	NT855%310<	NC-3032	267	2100	TT625	4	TC-12247	07/16/69	2146	4621	M 5	07
CUMMINS	V-1710-500	C-1012-E	423	1800	TC950	3	TC-12636	02/26/70	2000			07
CUMMINS	V-1710%500<	C-1012-E	460	2100	TC680	3	TC-12430	11/24/69	1802	6061		07
CUMMINS	V-1710%500<	C-1012-E	441	2100	TC840	3	TC-12339	09/29/69	1523	8961		07
CUMMINS	V-1710C-500	C-1012-F	445	2100	TC580		TC-16163	06/14/74	1900	5860		07
CUMMINS	V-220	C-2693	186	2300	TT425	4	TC12040	03/06/69	2363	4420	M3	07
CUMMINS	V-220	C-2693	186	2300	TT430	4	TC12041	03/06/69	2358	4420	M3	07
CUMMINS	V-352	C-2881A	84	2400	TT425	4	TC11879	11/19/68	1863	2420		07
CUMMINS	V-352-C140	C-3128-B	90	2100	TC350	3	TC-13102	12/03/70	2057	3331	S	07
CUMMINS	V-378	P-2880 PRELM	100	2200	TC370	3	TC-11748	07/11/68	1496	NONE	A	07
CUMMINS	V-378-C	NC-3172	117	2800	TC350		TC-17369	10/28/75	2282	3331		07
CUMMINS	V-378-C	NC-3172-A	116	2800	TT260	3	TC-12661	03/04/70		2220		07
CUMMINS	V-378-C	NC-3172	117	2800	TT445		TC-17368	10/28/75	1922	2421		07
CUMMINS	V-378-C155	C-3130-B		2500	TT240	4	TC-15661	11/14/73	2527	2221		07
CUMMINS	V-470	P-2824A PREL	118	2200	TC370	3	TC-11749	07/11/68	1639	NONE	A	07
CUMMINS	V-470-C	BULL.950555	149	3000	TC350	3	TC-11530	02/02/68	2345	3531	SL	07
CUMMINS	V-470-C	615TYWERIRAK	110	2400	TT445	4	TC-12434-2	08/03/70	1846	2420	SL	07

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS		15
CUMM	V-470-C	615TYWERIRAK	139	2800	TT445	3	TC-12434	11/22/69	1967	2420	S		07
CUMMINS	V-504	P-2879 PRELM	140	2200	TC370	3	TC-11750	07/11/68	1772	NONE	A		07
CUMMINS	V-504-C 210	C-3131-C	144	2500	TT260	4	TC-15301	07/10/73	2524	2221			07
CUMMINS	V-504-C185	C-3247	155	3000	TC350	4	TC-15401	09/06/73	2481	3331			07
CUMMINS	V-504-C185	C-3247	138	2800	TC360	4	TC-13114	12/08/70	1992	3531	M 6		07
CUMMINS	V-504-C185	C-3247	138	2800	TT425	4	TC-13115	12/08/70	2272	2420	MO6		07
CUMMINS	V-504-C210	C-3131-C	128	2400	TC350		TC-17761	03/29/76	2403	3331			07
CUMMINS	V-504-C210	C-3131-C	128	2400	TC360		TC-17762	03/29/76	2055	3331			07
CUMMINS	V-504-C210	C-3131-C	160	2800	TC360	4	TC-13112	12/08/70	2160	3531	M 7		07
CUMMINS	V-504-C210	C-3131-C	160	2800	TC370	4	TC-13113	12/08/70	1673	3531	M 7		07
CUMMINS	V-504-C210	C-3131-C	136	2300	TT260	4	TC-15301	07/10/73	2341	2421			07
CUMMINS	V-504-C210	C-3131-C	171	3000	TT262	4	TC-13751	11/12/71	2750	2221			07
CUMMINS	V-555	C-3317-D	154	2500	TT425	4	TC-15869	01/05/74	2411	2421	ML4		07
CUMMINS	V-555-C200	C-3317-B	57	2500	TT260	4	TC-15542	10/12/73	2531	TT22	LOAD		07
CUMMINS	V-555-C200	C-3317-B	155	2500	TT260	4	TC-15542	10/12/73	2531	TT22	IDLE		07
CUMMINS	V-588-C	C-1487-C	157	2400	TC370	3	TC-11504	01/26/68	1844	3531	SO		07
CUMMINS	V-903	C-2764-B	273	2500	TC450	3	C-2962	06/20/68	2170	4460			07
CUMMINS	V-903	RC-2900	273	2500	TC450	3	TC-12587	02/16/70	2750	HT70			07
CUMMINS	V-903	RC-2900	276	2500	TC450	3	TC-12475	12/05/69	2162	HT70			07
CUMMINS	V-903	C-2764-B	296	2500	TC450	3	C-2962	06/20/68	2175	4460			07
CUMMINS	V-903	C-2994	272	2500	TC540	3	TC-11925	01/02/69	1895	5631			07
CUMMINS	V-903	CO-2764-D3	249	2600	TC555		TC-16346	09/06/74	1918				07
CUMMINS	VETA 505	TC-11039	505	2500	TC550	3	TC-11039	02/16/68	2510		D		07
CUMMINS	VOOM-T-800	P-2085-A	736	2300	TC840	3	TC-7939	06/13/66	1829	8860		R	07
CUMMINS	VT-12-800	P-2749	763	2100	TC840	3	TC-11163	07/26/67	1921	8860	S	R	07
CUMMINS	VT-1710-635	C-1490-E	584	2100	TC630	3	TC-7978	07/15/69	1952	6061			07
CUMMINS	VTA 1710	C-1197-F	644	2106	TC840		TC-17350	10/24/75	1800	8961			07
CUMMINS	VTA-1710-C	C-1197-F	594	2100	TC950	3	TC-15750	12/18/73	1994				07
CUMMINS	VTA1710-800	C-2749	736	2100	TC840	3	TC-12493	12/10/69	1896	8961			07
CUMMINS	VTA1710C800	C-2749B	736	2100	TC860	3	TC-12979	04/27/71	1748	8961			07
CUMMINS	VTA1710C800	C-2749B	736	2100	TC880	3	TC-12940	08/18/70	1627	8961			07
CUMMINS	VT12-635	XC-4606	440	2100	TC690	3	TC-9498	05/13/66	1719	5960	SL	R	07
CUMMINS	VT12-635	C-1490C	540	2100	TC950	4	TC-10563	09/20/66	1868			R	07
CUMMINS	VT12-700	C-1197-D	616	2100	TC560	3	TC-11296	09/26/67	2158	7031	ME4	R	07
CUMMINS	VT12-700	C-1197-D	616	2100	TC576	3	TC-11570	03/01/68	2136	7530	M 4		07
CUMMINS	VT12-800		735	2100	TC840	3	P-2755	11/16/66	1880	8860			07
CUMMINS	VT8-300	TC-11546-2	239	2800	TC420	3	TC-11546	02/15/68	2403	4460	SL		07
CUMMINS	VT8-370	P-2078	323	2800	TC450	3	TC-10054	01/27/66	2220	4460	SO	R	07
CUMMINS	VOOM-6	P-1697-A	530	2300	TC680	3	TC-10124	05/13/66	1818	6061	S	R	07
CUMMINS	VOOMERT1200	TC10553-2	736	2100	TC840	3	TC-10553	09/16/66	1891	8860	SD	R	07
CUMMINS	VOOMERT1200	TC10554-2	828	2100	TC880	3	TC-10554	09/16/66	1708	8960	SD	R	07
CUMMINS	V12-500	C-1012-E	441	2100	TC690	3	TC-11650	05/16/68	1739	5960			07

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
CUMMINS	V12-525	C-2337	414	2100	TC690	3	TC-10266	05/18/66	1647	5960	R	07
CUMMINS	V12-525	C-1012-C	445	2100	TC690	3	TC-11514	01/31/68	1729	5960	L	07
CUMMINS	V504C	NC-3309	138	2800	TC370	3	TC-13402	04/20/71	1685	3331		07
CUMMINS	V504C	NC-3306	164	2800	TC370	3	TC-13400	04/20/71	1845	3331		07
CUMMINS	V504C	NC-3309	138	2800	TT425	4	TC-13401	12/22/71	2000	2420		07
CUMMINS	V504C	NC-3306	164	2800	TT445	4	TC-13399	04/20/71	2175	2420	O	07
CUMMINS	V555-C230	C-3207-B	186	2800	TT465		TC-17589	02/04/76	2134	3420		07
CUMMINS	V6-140	C-2079-C	98	3000	TT425	4	TC-11396	11/21/67	1861	2420	M	07
CUMMINS	V6-140 H.T.	P-2806-N	117	3000	TC350	3	TC-11125	07/11/67	2137	3331	S R	07
CUMMINS	V6-140 H.T.	P-2806-N	117	3000	TC360	3	TC-11126	07/11/67	1846	3331	S R	07
CUMMINS	V6-140 H.T.	P-2806-N	117	3000	TT220	4	TC-11121	07/11/67	2868	2220	S R	07
CUMMINS	V6-140 H.T.	P-2806-N	117	3000	TT240	4	TC-11122	07/11/67	2598	2220	S R	07
CUMMINS	V6-140 H.T.	P-2806-N	117	3000	TT260	4	TC-11123	07/11/67	2342	2220	S R	07
CUMMINS	V6-140 H.T.	P-2806-N	117	3000	TT425	4	TC-11124	07/11/67	2114	2420	S R	07
CUMMINS	V6-140-CI	P1849-B	77	3000	TC350	3	TC-10653	11/04/66	1858		SL--R	07
CUMMINS	V6R-180	C-1716	160	2300	TC420	4	TC-10120	02/24/66	2187	3441	S R	07
CUMMINS	V8-185	C-2103-B	114	2400	TT240	4	TC-10151	03/10/66	2444	2220	M 5 R	07
CUMMINS	V8-185	C-2103-B	114	2400	TT260	4	TC-10043	02/11/66	2403	2220	M 5 R	07
CUMMINS	V8-185	XC-4689	137	2800	TT425	4	TC-10017	01/07/66	2216	2420	SD R	07
CUMMINS	V8-185	C-2103-C	135	3000	TT425	4	TC-11447	12/19/67	2179	2420	SL	07
CUMMINS	V8-185 H.T.	P-2805-N	154	3000	TC350	3	TC-11127	07/11/67	2423	3331	S R	07
CUMMINS	V8-185 H.T.	P-2805-N	154	3000	TC360	3	TC-11128	07/11/67	2114	3331	S R	07
CUMMINS	V8-185 HT	P-2805-N	141	3000	TT240	4	TC-11319	10/10/67	2797	2220	M 4	07
CUMMINS	V8-185-CI	C-1932	148	3000	TC430	3	TC-10119	02/24/66	1965	3341	S R	07
CUMMINS	V8-285	C-1486-C	226	2500	TC430	3	TC-10381	07/01/66	2246	4460	R	07
CUMMINS	V8E-170	C-2141-C	50	2200	TT260	4	TC-11709	07/22/68	1618	2220	L	07
CUMMINS	V8E-170	C-2141-C	108	2200	TT425	4	TC-11709	06/18/68	2186	2420		07
CUMMINS	V8E-235	C-1960-A	203	2400	TC450	3	TC-10529	09/07/66	1908	HT70	R	07
CUMMINS	V8R-240	C-1715	218	2600	TC470	3	TC-10121	02/24/66	1754		S R	07
CUMMINS	V8R-240	C-1715	190	2300	TT465	4	TC-10152	03/10/66	2333	4420	M 6 R	07
CUMMINS	V8R240	C-1715	190	2300	TT445	4	TC-10525	09/04/[illegible]	2325	4420	MD5 R	07
CUMMINS	V903-C320	C-2994-C	256	2450	TC470		TC-16848	04/04/[illegible]	1909			07
CUMMINS	6V-378C	NC-3172-A	115	2800	TT445	4	TC-8860	02/23/72	1930	2421		07

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
DDE	GT-505	PHASE I	330	2880	TC470		TC-17444	11/19/75	2124	CT75		08
DDE	GT-505	PHASE I	330	2880	TC499		TC-17446	11/19/75	1645	CT75		08
DDE	12-71N-N65	E4R-7121-52-	425	2100	VTC690	3	TC-12730	03/12/70	2100	5965	S	08
DDE	12-71TV-N65	E4R-7121-32-	434	2100	VTC690	3	TC-12729	03/12/70	2300	5965	S	08
DDE	12V-149-130	E4-9121-12-2	720	1900	TC860	3	TC-15213	06/07/73	1767	8961		08
DDE	12V-149-130	XC-6118	765	1900	TC890	3	TC-15673	11/15/73	1560	8961		08
DDE	12V-149N	12V149N-7800	658	1900	TC880	3	TC-11077	06/08/67	1598	8860	5A R	08
DDE	12V-149T	E4AR91213218	883	1900	TC890	3	TC-11434	12/13/67	1667	8960		08
DDE	12V-149T	E4R9121-32-3	920	1900	TC890	3	TC-9639	12/05/69	1709	8961		08
DDE	12V-149TI	E4R9121-32-7	1104	1900	TC895	3	TC-13591	08/30/71	1587	8961	0	08
DDE	12V-149TI	E4-9121-32	1104	1900	TC895	3	TC-15148	05/16/73	1588	8961	0	08
DDE	12V-149T130	E4-9121-32-1	759	1900	TC890		TC-16930	05/07/75	1582			08
DDE	12V-71	XC-4624	364	2100	VTC690	3	TC-9565	05/13/66	1652	5960	M 88R	08
DDE	12V-71-N5	E4-7121-52-7	337	2100	TC940	4	TC-13962	02/22/72	1497			08
DDE	12V-71-N50	E4-7121-52-7	309	2100	FTC570	4	TC-14065	03/23/72	1886	7031	CBTU	08
DDE	12V-71-N55	E4-7121-52-1	357	2100	TC940	3	TC-13604	09/02/71	1539			08
DDE	12V-71-N55	E4-7121-52-1	334	2100	VTC690		TC-11187	08/07/67	1718	5860	ML	08
DDE	12V-71-N55	E4-7121-52-1	334	2100	VTC690	3	TC11778	08/12/68	1718	5860	M6	08
DDE	12V-71-N60	E4-7121-52-5	394	2100	TC496	3	TC-12843	06/11/70	2083	CT75	L	08
DDE	12V-71-N60	E4-7121-52-2	372	2100	TC499		TC-16481	10/16/74	1710	CT75		08
DDE	12V-71-N60	E4-7121-52-2	372	2100	TC499		TC-16613	11/27/74	1646	CT75		08
DDE	12V-71-N60	E4-7121-52-5	394	2100	TC499	3	TC-12898	07/17/70	1704	CT75	L	08
DDE	12V-71-N60	E4-7123-52-1	396	2100	TC499	3	TC-12873	07/07/70	1714	HT75	E	08
DDE	12V-71-N60	E4-7123-52-1	362	2100	TC580	3	TC-11550	02/21/68	1713	7530		08
DDE	12V-71-N60	E4-7121-52-2	372	2100	TC590		TC-16482	10/16/74	1635	5860		08
DDE	12V-71-N60	E4-7123-52-1	390	2100	TC590	3	TC-11208	05/03/68	1664	5860	L	08
DDE	12V-71-N60	E4-7123-52-1	396	2100	TC590	3	TC-12246	07/15/69	1673	5860		08
DDE	12V-71-N60	E4-7123-52-1	395	2100	TC690	3	TC-10966	04/19/67	1618	5960	R	08
DDE	12V-71-N60	E4-7123-52-1	396	2100	TC840	4	TC-16001	03/26/74	1830			08
DDE	12V-71-N60	E4-7123-52-1	360	2100	VTC690	3	TC-11721	06/24/68	1758	5860	ML7	08
DDE	12V-71-N65	FILE NO. 400	333	2000	TC550	3	TC-14986	03/07/73	2115	7031		08
DDE	12V-71-N65	AC T-460C	383	2100	TC580	3	TC-11403	11/28/67	1754	5860		08
DDE	12V-71-N65	E4R-7123-52	420	2100	TC580		TC-16305	08/06/74	1900	5860		08
DDE	12V-71-N65	E4-7123-52-1	432	2100	TC590	3	TC-13039	10/15/70	1735	5860		08
DDE	12V-71-N65	E4R-7121-52	369	1800	TC680		TC-16334	08/22/74	1659	5960		08
DDE	12V-71-N65	E4-7121-52	374	2100	TC690		TC-16168	06/14/74	1560	5960		08
DDE	12V-71-N65	XC-6101	375	2100	TC690	3	TC-11401	12/01/67	1598	5960		08
DDE	12V-71-N65	AC T-460C	383	2100	TC690	3	TC-11401	11/28/67	1601	5960		08
DDE	12V-71-N65	E4R7121-52-2	387	2100	TC690	3	TC-11478	01/15/68	1598	5960	SL	08
DDE	12V-71-N65	E4R-7121-523	410	2100	TC690	3	TC-15454	09/18/73	1624	5960		08
DDE	12V-71-N65	E4R7123-52-1	424	2100	TC690	4	TC-9641	05/13/66	1769	5960	M 9 R	08
DDE	12V-71-N65	E4R-7123-52	431	2100	TC690	3	TC-10968	04/19/67	1673	5960	R	08

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
DDE	12V-71-N65	E4R7123-52-1	386	2100	TC950	4	TC-10992	04/28/67	1608		SD R	08
DDE	12V-71-N65	E4-7123-52-1	432	2100	TC950	4	E4-7126-52-11	01/12/68	1680			08
DDE	12V-71-N65	E4R7123-52-1	432	2100	TC950		TC-10047	03/10/75	1734			08
DDE	12V-71-N65	E4-7123-52-9	432	2100	TC950L		TC-17731	03/17/76	1728			08
DDE	12V-71-N65	T-460E	390	2100	VTC690	3	TC-9850	10/09/67	1823	5960	MO5 R	08
DDE	12V-71-N65	T460E	390	2100	VTC690	3.	TC-9850	05/13/66	1688	5960	MO5 R	08
DDE	12V-71-N65	E4R7121-52-2	398	2100	VTC690	3	TC-11479	01/15/68	1832	5960	M 96	08
DDE	12V-71-N65	E4R7123-52-1	404	2100	VTC690	3	TC-9680	05/13/66	1709	5960	M 6 R	08
DDE	12V-71-N65	E4R7121-52-2	407	2100	VTC690	3	TC-11746	07/11/68	1865	4460	S	08
DDE	12V-71-N65	E4R7123-52-1	432	2100	VTC690	3	TC-9293	08/09/66	1896	5960	M 87R	08
DDE	12V-71-N70	E4R7121-52-4	442	2100	TC680	3	TC-11690	05/27/68	1704	5960		08
DDE	12V-71-N70	E4R712132-14	426	2100	TC690	3	TC-11478	05/03/68	1688	5960	SL	08
DDE	12V-71-N70	E4R7121-52-4	432	2100	TC690	3	TC-9547	05/13/66	1647	5960	R	08
DDE	12V-71-N70	E4R-7121-52	500	2300	TC940		TC-16498	10/25/74	1687			08
DDE	12V-71-N70	E4-7125-52-1	396	1800	TC950		TC-16515	10/30/74	1738			08
DDE	12V-71-N70	E4R-7121-524	469	2300	TC950	4	TC-12297	09/05/69	1726			08
DDE	12V-71-N70	E4R-7121-32	470	2100	VC690	3	TC-15137	05/07/73	1979	5960		08
DDE	12V-71-N70	E4R712132-14	437	2100	VT"690	3	TC-11479	05/03/68	1917	5960	SL	08
DDE	12V-71-N75	E4R712132-13	451	2100	TC690	3	TC-11478	05/03/68	1733	5960	SL	08
DDE	12V-71-N75	E4R712132-13	462	2100	VT"690	3	TC-11479	05/03/68	1958	5960	SL	08
DDE	12V-71-S6D	E4-7123-12-2	360	2100	VTC550	3	TC-12403	11/05/69	2121	5860	ML85	08
DDE	12V-71-S60	E4-7121-12-8	378	2100	TC840	4	TC-10947	04/10/67	1749		R	08
DDE	12V-71-S60	E4-7121-12-3	356	2100	VTC570	3	TC-12480	12/06/69	1967	5865	M 85	08
DDE	12V-71N-N65	E4R-7123-521	432	2100	TC690	3	TC-10615	10/13/66	1675	5960	R	08
DDE	12V-71N-60	E4-7121-52-5	399	2100	TC499		TC-16401	09/11/74	1723	750		08
DDE	12V-71T	XC-4758	588	2500	TC680	3	TC-10298	06/30/66	1897	6061	R	08
DDE	12V-71T-C65	E4-7121-32-5	388	2100	TC540		TC-17187	09/16/75	2143	7033	M	08
DDE	12V-71T-C65	E4-7121-32-5	388	2100	TC550		TC-17188	09/16/75	2140	7033	M	08
DDE	12V-71T-N65	E4R-71213217	392	2100	FTC540	4	TC-14062	03/23/72	2135	6033	CBTU	08
DDE	12V-71T-N65	E4R712132-17	173	2100	FTC550	3	TC-13907	02/08/72	1412	6033	M	08
DDE	12V-71T-N65	E4R-71213217	388	2100	FTC550		TC-16448	09/27/74	2138	7031		08
DDE	12V-71T-N65	E4R712132-17	392	2100	FTC550	3	TC-13907	02/08/72	2136	6033	M	08
DDE	12V-71T-N70	E4R-7121-32	455	2100	TC690	3	TC-11358	11/09/67	1717	5960		08
DDE	12V-71T-N70	E4-7121-32-4	460	2100	TC950		TC-16909	04/29/75	1805			08
DDE	12V-71T-N70	E4R7121-3216	437	2100	VTC680	3	TC-12290	08/15/69	1853	5960	ME85	08
DDE	12V-71T-N70	E4R7121-3216	437	2100	VTC690	3	TC-12292	08/15/69	1919	5960	ME85	08
DDE	12V-71T-N75		425	2100	FTC550	3	TC-15986	03/11/74	2150	7031	ML8	08
DDE	12V-71T-N75		425	2100	TC550	3	TC-15985	03/11/74	2152	7031	ML8	08
DDE	12V-71T-N75	E4R7121-3211	479	2100	TC680	3	TC-10403	07/14/66	1783	5960	R	08
DDE	12V-71T-N75	E4R-71213219	444	1800	TC940	4	TC-16040	04/10/74	1752			08
DDE	12V-71T-N75	E4-7121-32-3	483	2100	TC950		TC-16908	04/29/75	1844			08
DDE	12V-71T-N75	TC-10463-2	451	2100	VTC690	3	TC-10463	08/05/66	1948	5960	M 5 R	08

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	
DDE	12V-71TV	E4R-7121-32	600	2300	TC940		TC-16497	10/25/74	1893			08
DDE	12V-71TVN75	E4R-7121-32	466	2100	VC690	3	TC-15139	05/07/73	1973	5960		08
DDE	12V149TI180	E4-9121-3211	1137	1900	TC895	3	TC-15350	07/27/73	1602	8961		08
DDE	12V149TN140	E4-9121-3213	810	1900	TC890	3	TC-14901	01/18/73				08
DDE	16V-149	E4R3161-12-1	975	1900	TC890	3	TC-10376	06/30/66	1776	8960	S R	08
DDE	16V-149T	E4R-3161-32-	1380	1900	TC1090	1	3XC-4920	08/07/67	1691	1200	SE R	08
DDE	16V-149T	E4R9121-32-3.	920	1900	TC800	3	TC-13494	07/15/71		8961	ME	08
DDE	16V-149T	E4R9121-32-3	920	1900	TC895	3	TC-13495	07/15/71	1460	8961	ME	08
DDE	16V-149T	E4-9161-32	1219	1900	TC895	3	TC-15149	05/16/73	1669	8961	0	08
DDE	16V-149TI	E4-9161-32-5	1472	1900	TC895	3	TC-15150	05/16/73	1814	8961	0	08
DDE	16V-71-N60	E4-7163-52-1	516	2100	TC940	4	TC-15255	06/25/73	1802			08
DDE	16V-71-N60	E4-7163-52-1	516	2100	TC950	4	TC-15256	06/25/73	1882			08
DDE	16V-71-N65	E4R7163-52-1	509	2100	TC680	3	TC-9917	05/13/66	1844	6061	SA R	08
DDE	16V-71-N65	E4R7163-52-1	564	2100	TC680	3	TC-10785	01/24/67	1928	6061	R	08
DDE	16V-71-N65	E4R7163-52-1	564	2100	TC940	4	TC-15257	06/25/73	1869			08
DDE	16V-71-N65	E4R7163-52-1	564	2100	TC950	3	TC-11526	02/01/68	1906			08
DDE	16V-71-N65	E4R7163-52-1	564	2100	TC950	4	TC-15258	06/25/73	1952			08
DDE	16V-71-N65	E4-7163-52-8	564	2100	TC950L		TC-17732	03/17/76	1947			08
DDE	16V-71-N70	E4R7161-52-3	576	2100	TC680	3	TC-9450	05/13/66	1940	6061	S R	08
DDE	16V-71-N70	E4R7161-52-3	596	2100	TC680	3	TC-10787	01/24/67	1972	6061	R	08
DDE	16V-71T-N60	E4R7163-32-6	449	2100	TC690	3	TC-9497	05/13/66	1665	5960	SA R	08
DDE	16V-71T-N65	E4R-71613217	489	2100	FTC570		TC-16452	10/02/74	2137	7031		08
DDE	16V-71T-N65	E4R-71613217	489	2100	FTC570		TC-16454	10/02/74	2137	7033		08
DDE	16V-71T-N65	E4R7161-32-7	553	2100	TC680	3	TC-11094	06/23/67	1911	6061	R	08
DDE	16V-71T-N65	E4R-7161-327	553	2100	TC840	3	TC-11263	09/05/67	1662	8860	R	08
DDE	16V-71TIN90	E4R-71613222	720	2100	TC860	3	TC-14985	03/12/73	1723	8961		08
DDE	16V-71TIN90	E4R-71613220	720	2100	TC860	3	TC-15033	03/20/73	1723	8961		08
DDE	16V-71TVN65	E4R716132-17	566	2100	TC840	3	TC-12316	09/18/69	1707	8961		08
DDE	16V-71TVN70	E4R716132-15	612	2100	TC840	3	TC-12317	09/18/69	1767	8961		08
DDE	16V-71TVN75	E4R-71613212	626	2100	TC840		TC-16200	06/28/74	1780	8961		08
DDE	16V-71TVN75	E4R716132-12	644	2100	TC840	3	TC-12318	09/18/69	1806	8961		08
DDE	2-53-S45-2V	E4-5023-11-1	42	2000	TC350	3	TC-10135	03/04/66	1535		R	08
DDE	2-71-HV7	E4-1023-11-1	56	2000	TC420	4	TC-10473	08/16/66	1440	3341	R	08
DDE	3-53-N40	E4-5031-52-1	79	2500	TT220	4	TC-10662	11/08/66	2506	1220	M-4-R	08
DDE	3-53-N40	E4-5031-52-4	67	2500	TT240	4	TC-10660	11/08/66	2171	1220	M-5-R	08
DDE	3-53-N40	E4-5031-52-4	59	2200	TT272	4	TC-15519	10/08/73	1841	TTBZ		08
DDE	3-53-N45	E4-5031-52-6	80	2500	TC300		TC-17075	07/28/75	2100	TC35		08
DDE	3-53-N45	E4-5031-52-3	70	2800	TT240		TC-17354	10/27/75	2214	2210		08
DDE	3-53-N45	E4-5031-52-3	81	2800	TT240	4	TC-14074	04/04/72	2542	2221		08
DDE	3-53-N45	XC-6044	79	2800	TT252	4	TC-14543	08/31/72	2282	2221		08
DDE	3-53-N45	E4-5033-52-1	81	2800	TT252	4	TC-11409	03/18/71	2251	2220		08
DDE	3-53-N45	E4-5031-52-3	70	2800	TT270		TC-17355	10/27/75	2214	2210		08

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	20
DDE	3-53-N45-4V	E4-5033-52-1	66	2400	TT220	4	TC-10085	02/07/66	2396	1220	M 3 R	08
DDE	3-53-N45-4V	E4-5033-52-1	79	2600	TT260	4	TC-10033	01/21/66	2043	1220	S R	08
DDE	3-53-N50	E4-5031-52-1	79	2500	TT240	4	TC-10715	12/09/66	2283	1220	M-4-R	08
DDE	3-53-N50	E4-5031-52-2	81	2600	TT240	4	TC-11808	08/30/68	2286	2220		08
DDE	3-53-N50	XC-6044	83	2500	TT252	4	TC-14544	08/31/72	2325	2221		08
DDE	3-53-N50 4V	E4-5031-52-1	78	2800	TT260	4	TC-10541	09/12/66	2012	2220	M 6 R	08
DDE	3-53-N50 4V	E4-5031-52-1	78	2800	TT425	4	TC-10543	09/12/66	1618	2420	M 6 R	08
DDE	3-53-S40	TC-10650-2	44	2100	TC350	3	TC-10650	11/07/66	1569		SO R	08
DDE	3-53-S40	E4-5033-12-5	72	2500	TC350	3	E4-5036-12-20	11/06/67	1865			08
DDE	3-53-S45	E4-5033-12-4	80	2500	TC250	3	TC-13137	12/09/70	1450			08
DDE	3-53-S45	E4-5033-12-4	85	2800	TC250	3	TC-10940	04/07/67	1484		R	08
DDE	3-53-S45	TC-10470-2	50	2100	TC350	3	TC-10470	08/09/66	1631		SD R	08
DDE	3-53-S45	E4-5033-11-1	66	2100	TC350	3	TC-11651	05/06/68	1793	3331	M8	08
DDE	3-53-S45	E4-5033-12-4	77	2500	TC350	3	TC-11421	11/30/67	1823	3331		08
DDE	3-53-S45	E4-5033-12-4	80	2500	TC350	3	TC-13019	09/29/70	1905		M 6	08
DDE	3-53-S45	E4-5033-11-1	66	2100	TC360	3	TC-11653	05/06/68	1559	3331	M8	08
DDE	3-53-S45	E4-5033-12-4	73	2400	TT240	4	TC-10079	02/04/66	2242	1220	M 3 R	08
DDE	3-53-S45	E4-5033-12-4	79	2700	TT240	4	TC-10911	03/30/67	2251	1220	M-3-R	08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT240	4	TC-11222	08/18/67	2263	2220	M 6 R	08
DDE	3-53-S45	E4-5033-12-4	74	2400	TT252	4	TC-11612	03/28/68	2228	2220		08
DDE	3-53-S45	E4-5033-12-4	66	2500	TT260	4	TC-11495	01/23/68	1902	1220	L	08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT260	4	TC-11037	05/12/67	2028	2220	ST R	08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT260	4	TC-11662	05/07/68	1998	2220		08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT260	4	TC-9377	06/16/66	2021	2220	S R	08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT262	4	TC-11664	05/07/68	2020	2220		08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT270	4	TC-11663	05/07/68	2009	2220		08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT272	4	TC-11665	05/07/68	1986	2220		08
DDE	3-53-S45	E4-5033-12-4	74	2400	TT425	4	TC-11303	09/28/67	1732	2420	R	08
DDE	3-53-S45	E4-5033-12-4	78	2700	TT425	4	TC-11115	07/05/67	1792	2420	R	08
DDE	3-53-S45	E4-5033-12-4	81	2800	TT425	4	TC-11131	07/11/67	1826	1420	R	08
DDE	3-53-S45 4V	E4-5033-12-4	81	2500	TC350	3	E4-5036-12-19	03/19/6	1930		G	08
DDE	3-53-S45 4V	E4-5033-12-4	77	2500	TT260	4	TC-10626	10/21/6	2021	2220	R	08
DDE	3-53-S45 4V	E4-5033-12-4	81	2800	TT260	4	TC-11344	10/30/67	2033	2220		08
DDE	3-53-S45-2V	E4-5033-11-1	70	2200	TC350	3	TC-10136	03/04/66	1969		M	08
DDE	3-53-S45-2V	E4-5033-11-1	48	1400	TT240	4	TC-10156	03/11/66	1489	2220	M 7 R	08
DDE	3-53-S45-2V	E4-5033-11-1	60	1800	TT240	4	TC-10158	03/11/66	1854	2220	M 7 R	08
DDE	3-53-S45-2V	E4-5033-11-1	48	1400	TT260	4	TC-10157	03/11/66	1470	2220	M 7 R	08
DDE	3-53-S45-2V	E4-5033-11-1	60	1800	TT260	4	TC-10159	03/11/66	1824	2220	M 7 R	08
DDE	3-53-S45-4V	E4-5033-12-4	75	2500	TC350	3	TC-12771	03/20/70	1777	3331		08
GM	3-53-455	E45033124	73	2500	TT220	4	TC11951	12/18/68	2434	2220	M 5	08
DDE	3-53N-C45	E4-5031-5213	70	2400	TT240		TC-16251	07/16/74	2190	2221		08
DDE	3-71-HV6	E4-1033-11-1	76	2100	TC370	3	E4-1036-11-14	01/04/68	1470			08

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	21
DDE	3-71-HV7	E4-1033-11-1	92	2300	TC350	3	TC-11141	07/14/67	2079	3331	MC	08
DDE	3-71-HV7	E4-1033-11-1	92	2300	TC360	3	TC-11141	07/14/67	1856	3331	MC	08
DDE	3-71-HV7	E4-1033-11-1	90	2100	TC370	3	E4-1036-11-3	02/07/67	1535			08
DDE	3-71-HV7	E41033-11-5A	89	2300	TC370	3	TC-10874	03/07/67	1508		S R	08
DDE	3-71-HV7	E4-1033-11-1	92	2300	TC370	3	TC-11141	07/14/67	1497	3331	MC	08
DDE	3-71-HV7	E4-1033-11-1	86	2100	TT425	4	TC-10127	02/26/66	2033	2420	S R	08
DDE	3-71-HV7	E4-1033-11-1	86	2100	TT445	4	TC-10077	02/04/66	1807	2420	S R	08
DDE	3-71-N65	E4-1031-51-4	94	2100	TC370		TC-16684	12/19/74	1635			08
DDE	4-53-C50	E4-5041-5217	122	2800	TT260	4	TC-15321	07/17/73	2371	2221		08
DDE	4-53-C50	E4-5041-5217	122	2800	TT260	4	TC-15322	07/17/73	2371	2221		08
DDE	4-53-M55 4V	E4R504354-2B	101	2400	TC350	3	TC-10807	01/30/67	2062	3331	SA--R	08
DDE	4-53-N45	E4-5041-52-3	104	2800	AT540		TC-15747	07/03/75	1691	540		08
DDE	4-53-N45	E4-5043-52-1	88	2200	TC350	3	TC-12611	02/19/70	2400	3331		08
DDE	4-53-N45	E4-5041-52-3	110	2600	TC350	3	TC-15755	12/18/73	2274			08
DDE	4-53-N45	E4-5041-52-3	103	2800	TC350		TC-17361	10/27/75	2200	3331		08
DDE	4-53-N45	E4-5041-52-3	114	2800	TC350	4	TC-10464	09/06/73	2209	3331		08
DDE	4-53-N45	E4-5043-52-1	88	2200	TC350D	3	TC-12618	02/19/70	2400	3331		08
DDE	4-53-N45	E4-5043-52-1	110	2500	TC360	3	TC-11656	05/06/68	1871	3331		08
DDE	4-53-N45	E4-5043-52-3	104	2200	TC370	3	TC-16013	03/28/74	1567	3331		08
DDE	4-53-N45	E4-5043-52-1	96	2400	TT240	4	TC-10041	02/11/66	2415	2220	M 4 R	08
DDE	4-53-N45	E4-5043-52-1	106	2500	TT240	4	TC-10486	08/22/66	2513	2220	M 6 R	08
DDE	4-53-N45	E4-5041-52-6	106	2500	TT240	4	TC-13569	08/26/71	2512	2220	M 3	08
DDE	4-53-N45	E4-5043-52-1	109	2600	TT240	4	TC-12863	06/30/70	2587	TT20	M 5	08
DDE	4-53-N45	E4-5041-52-3	103	2800	TT240		TC-17176	09/02/75	2546	2211		08
DDE	4-53-N45	E4-5041-52-3	108	2800	TT240	4	TC-10628	10/21/66	2536	2220	SL R	08
DDE	4-53-N45	E4-5043-12-1	113	2800	TT242	4	TC-11436	12/14/67	2591	2220		08
DDE	4-53-N45	E4-5042-12-1	114	2600	TT260	4	TC-10305	06/08/66	2200	2220	SL R	08
DDE	4-53-N45	E45043-52-1	107	2700	TT260	4	TC-11417	11/30/67	2309	2220		08
DDE	4-53-N45	E4-5043-52-1	112	2700	TT260	4	TC-10912	03/30/67	2350	2220	M-5-R	08
DDE	4-53-N45	E4-5041-52-3	103	2800	TT260		TC-17177	09/02/75	2298	2211		08
DDE	4-53-N45	E4-5043-12-1	113	2800	TT262	4	TC-11438	12/14/67	2365	2220		08
DDE	4-53-N45	E4-5041-52-3	103	2800	TT270		TC-17178	09/02/75	2320	2211		08
DDE	4-53-N45	E4-5041-52-6	103	2600	TT424	4	TC-12267	03/12/71	2024	2420		08
DDE	4-53-N45	E4-043-52-1	94	2000	TT425	4	TC-16077	04/01/74	1989	2421		08
DDE	4-53-N45	E4-5043-52-1	104	2400	TT425	4	TC-11445	12/18/67	2114	2420	L	08
DDE	4-53-N45	E4-5043-52-1	110	2500	TT425	4	TC-10290	06/02/66	2140	2420	S R	08
DDE	4-53-N45	E4-5043-52-1	106	2600	TT425	4	TC-10778	01/19/67	2095	2420	R	08
DDE	4-53-N45	E45043-52-1	107	2700	TT425	4	TC-11419	11/30/67	2099	2420		08
DDE	4-53-N45	E4-5041-52-3	103	2800	TT425		TC-17179	09/02/75	2031	2411		08
DDE	4-53-N45	E4-5043-52-1	113	2800	TT425	4	TC-10297	06/06/66	2131	2420	S R	08
DDE	4-53-N45	E4-5043-12-1	113	2800	TT425	4	TC-10468	08/09/66	2066	2420	S R	08
DDE	4-53-N45	XC-5045	100	2800	TT426	4	TC-14539	08/31/72	2110	2421		08

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	24
DDE	4-71-N60	E4-1043-52-1	128	2100	TC470	3	TC-11235	08/24/67	1479			08
DDE	4-71-N60	E4-1041-52-5	116	2100	TT425	4	TC-11315-1	10/04/67	2130	2420	M 7	08
DDE	4-71-N60	E4-1041-52-5	117	2200	TT425	4	TC-11315-2	10/04/67	2214	2420	M 7	08
DDE	4-71-N65	E4R-1041-52-	130	2300	TC340	3	TC-12612	02/19/70	2500	3630	M 7	08
DDE	4-71-N65	E4R-1041-52-	130	2300	TC350D	3	TC-12628	02/19/70	2500	3630	M 7	08
DDE	4-71-N65	E4R1041-52-3	118	2100	TC370	3	TC-13934	02/17/72	1821	CT65	M	08
DDE	4-71-N65	E4R1041-52-4	126	2100	TC370	3	TC-10356	06/22/66	1740	3531	SL R	08
DDE	4-71-N65	E4-1041-52-1	129	2100	TC370		TC-16426	09/23/74	1878			08
DDE	4-71-N65	E4R1043-52-1	134	2100	TC370	3	TC-10280	05/27/66	1781	3531	S R	08
DDE	4-71-N65	E4R1041-52-3	138	2100	TC370	3	TC-13934	02/17/72	1939	CT65	M	08
DDE	4-71-N65	E4R1041-52-3	134	2200	TC370	3	TC-11253	08/30/67	1777	3531		08
DDE	4-71-N65	TC-11415-2	135	2200	TC370	3	TC-11415	11/29/67	1815		SO	08
DDE	4-71-N65	9/12/66	118	2300	TC370		TC-17362	10/27/75	1824	3531		08
DDE	4-71-N65	E4R-1041-533	130	2300	TC370	3	TC-14277	06/20/72	1798	3531	L	08
DDE	4-71-N65	E4R-1041-52	117	2100	TC405		TC-16301	08/07/74	1940	650		08
DDE	4-71-N65	E4R-1041-524	115	2100	TC420	3	TC-15492	10/02/73	1690	CT65		08
DDE	4-71-N65	E4R-1041-52	115	2100	TC420		TC-16299	08/07/74	1940	3461		08
DDE	4-71-N65	E4R-1041-524	139	2100	TC420	3	TC-15494	10/02/73	1835	CT65		08
DDE	4-71-N65	E4R-1041-52	139	2100	TC420	3	TC-15992	03/20/74	2095	3441		08
DDE	4-71-N65	E4R-1041-52	139	2100	TC420	3	TC-15993	03/20/74	2083	3441		08
DDE	4-71-N65	E4R-1043-52	130	2100	TC430	4	TC-10924	03/31/67	2097	3341	SL R	08
DDE	4-71-N65	E4-1041-51-4	131	2100	TC430		TC-16687	12/19/74	1892			08
DDE	4-71-N65	E4R1041-52-3	137	2100	TC430	4	TC-11583	03/05/68	2110	3361	M 96	08
DDE	4-71-N65	E4R1043-52-1	139	2100	TC430	3	TC-11236	08/24/67	1931			08
DDE	4-71-N65	E4R1043-52-1	139	2100	TC450	3	TC-11237	08/24/67	1724			08
DDE	4-71-N65	E4R-1043-52	139	2100	TC470	3	TC-11152	07/21/67	1531		G	08
DDE	4-71-N65	XC-4808	128	2300	TT260	4	TC-10743	12/27/66	2336	2220	M 5 R	08
DDE	4-71-N65	E4-1041-52-2	128	2300	TT260	4	TC-15297	07/10/73	2341	2221		08
DDE	4-71-N65	E4R-1041-533	130	2300	TT260	3	TC-14274	06/20/72	2336	2221	L	08
DDE	4-71-N65	XC-4808	127	2200	TT425	4	TC-10704	12/05/66	2226	2420	M-6 R	08
DDE	4-71-N65	E4-1041-5221	128	2300	TT425	4	TC-15297	07/10/73	2280	2421		08
DDE	4-71-N65	E4-1041-5221	128	2300	TT425	4	TC-15872	01/05/74	2280	2421	ML4	08
DDE	4-71-N65	E4R-1041-533	130	2300	TT425	3	TC-14275	06/20/72	2307	2421	L	08
DDE	4-71-N65	E4R-1041-52	131	2300	TT425	4	TC-15872	03/27/74	2275	2421	ML4	08
DDE	4-71-N65	E4R-1041-533	130	2300	TT445	3	TC-14276	06/20/72	2161	2421	L	08
DDE	4-71-N65	E4R1041-52-3	137	2100	VTC430	3	TC-11579	03/05/68	2070	3361	M 96	08
DDE	4-71-N65	E4R1043-52-1	139	2100	VTC430	3	TC-10063	08/26/66	1972	3341	M 96R	08
DDE	4-71-S65	E4R1043-24-1	112	2300	TC350	3	TC-10809	01/30/67	2244	3331	SA--R	08
DDE	4-71-70	E4-1043-11-1	120	2200	TC350	3	TC-8321	03/29/66	2222	3331	M 6 R	08
DDE	4-71T-N60	XC-62101	117	2100	TC470		TC-16863	04/14/75	1402			08
DDE	4-71T-N65	XC-62101	129	2100	TC470		TC-16862	04/14/75	1440			08
DDE	4-71T-N70	E4R-1041-32	132	2100	TC405		TC-16303	08/07/74	2040	650		08

ENG MFG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	25
DDE	471-N65	E4-1041-52-3	141	2300	TC370	3	TC-15680	11/23/73	1900			08
DDE	6-7-N70	E4R1061-52-5	234	2300	TC470	3	TC-10302	06/10/66	1833	HT70	SL R	08
DDE	6-71-HV6	E4-1063-11-2	162	2100	TT645	4	TC-11084	06/16/67	1862	4621	SL R	08
DDE	6-71-HV7	E4-1063-11-2	207	2100	TC450	3	TC-10863	02/27/67	1998	4460	----R	08
DDE	6-71-HV7	E4-1063-11-2	207	2100	TC470	3	TC-10864	02/27/67	1779	4460	----R	08
DDE	6-71-HV7	E4-1063-11-2	207	2100	TT625	4	TC-10494	08/23/66	2128	4621	R	08
DDE	6-71-HV7	E4-1063-11-2	207	2100	TT645	4	TC-10584	09/30/66	2043	4621	R	08
DDE	6-71-N55	E4F0000-00-1	183	2100	FTC470	3	TC-13416 BRAK	05/05/71	600		SE	08
DDE	6-71-N55	E4-1061-51-2	170	2100	TC400		TC-17077	07/28/75	1130	TC47		08
DDE	6-71-N55	E4-1061-52-1	183	2100	TC470	3	TC-13416 PROP	05/05/71	1744		SE	08
DDE	6-71-N55	E4-1061-52-5	169	2200	TT445	4	TC-9936	03/04/66	2225	4420	M 3 R	08
DDE	6-71-N55 2V	E4-1061-51-2	166	2100	TC470		TC-16471	10/07/74	1665			08
DDE	6-71-N60	E4-1061-5221	175	1800	TC470	3	TC-15359	08/08/73	1760			08
DDE	6-71-N60	E41063-52-1	192	2100	TC470	3	TC-11285	09/21/67	1750	4460		08
DDE	6-71-N60	E4-1063-52-1	197	2100	TC470	3	TC-10675	11/15/66	1751	4460	R	08
DDE	6-71-N60	E41061-52-6	184	2100	TC540	3	TC-11109	07/03/67	1720			08
DDE	6-71-N65	E4R-1061-523	195	2100	FTC550	4	TC-14060	03/23/72	1682	5534	CBTU	08
DDE	6-71-N65	E4R-1063-525	157	1900	TC470	3	TC-13322	03/09/71	1665			08
DDE	6-71-N65	VC-6173	162	2100	TC470		TC-16428	09/20/74	1624		DERA	08
DDE	6-71-N65	E4R1063-52-1	201	2100	TC470	3	TC-11389-1	11/28/67	1766	4460	SL	08
DDE	6-71-N65	E4-1061-52-9	205	2100	TC470		TC-16429	09/20/74	1773			08
DDE	6-71-N65	E4-1061-52-9	207	2100	TC470	3	TC-12766	03/09/70	1785	4460	SL	08
DDE	6-71-N65	E4-1063-52-1	215	2100	TC470	3	TC-8063	07/14/69	1819	4460		08
DDE	6-71-N65	E4R1061-52-2	201	2100	TC540	3	TC-11110	07/03/67	1783			08
DDE	6-71-N65	E4R1063-52-1	211	2100	TC540	4	TC-10212	04/15/66	1741	5631	S R	08
DDE	6-71-N65	TEREX82-30FA	194	2100	TC550	3	TC-14829	12/19/72	1704	5434	MC	08
DDE	6-71-N65	E4R-1061-523	195	2100	TC550		TC-17186	09/16/75	1701	5534	M	08
DDE	6-71-N65	E4-1061-52-9	200	2100	TC550	3	TC-14340	07/12/72	1747		M	08
DDE	6-71-N65	E4R1063-52-1	206	2100	TT645	4	TC-14498	08/11/72	2040	4621		08
DDE	6-71T-HV8	E4-1061-32-3	239	2100	TC470	3	TC-11643	05/03/68	1903	4460	SL	08
DDE	6-71TV-N70	XC-5925	198	2100	TT625	4	TC-13455	09/23/71	2106	4621	ML64	08
DDE	6-71TV-N75	E4R-1061-329	222	2100	TT625	4	TC-13754	11/22/71	2127	4621	M	08
DDE	6-92	XC-5230	249	2100	TC490	3	TC-12767	03/09/70	1663	4460	SL	08
DDE	6V-53-M50	E4R-5061-84	191	2800	TC420	3	TC-11355	11/07/67	2029	HT70		08
DDE	6V-53-N40	E4-5061-52-7	150	2800	TC350	3	TC-11528	02/02/68	2422	3531	SL	08
DDE	6V-53-N40	E4-5061-52-5	133	2800	TC360	3	TC-10371	06/28/66	2083	3331	SL R	08
DDE	6V-53-N40	TC-10190-2	164	2800	TC370	3	TC-10190	04/05/66	1802	3531	R	08
DDE	6V-53-N40	E4-5061-52-7	143	2800	TT260	4	TC-12282	12/11/69	2601	2220	L	08
DDE	6V-53-N40	E4-5061-52-7	141	2500	TT445	4	TC-15972	02/23/74	2121	2421		08
DDE	6V-53-N40	E45061-52-7	149	2800	TT445	4	TC-15912	01/26/74	2174	2421	L	08
DDE	6V-53-N45	E4-5063-52-1	148	2400	TC350		TC-11040	05/16/67	2419	3531	M 5 R	08
DDE	6V-53-N45	E4-5063-52-1	160	2500	TC350	3	TC-10894	03/16/67	2510	3531	ML65R	08

E	ENG	ENG MODEL	ENG REF	HP	GRPM	CONV	E	MATCH REF	DATE	SRPM	TRAN	RMKS	26
DDE		6V-53-N45	E4-5063-52-1	160	2500	TC350	3	TC-13557	08/24/71	2525	3630	M 6	08
DDE		6V-53-N45	E4-5061-52-3	166	2600	TC350	3	TC-11728	06/18/68	2563	3531	L	08
DDE		6V-53-N45	E4-5061-52-6	158	2800	TC350	3	TC-14204	05/30/72	2585	3531	L	08
DDE		6V-53-N45	E4-5063-52-1	170	2800	TC350	3	TC-11506	01/26/68	2575	3531	S	08
DDE		6V-53-N45	E4-5063-52-1	180	2800	TC350	3	TC-10569	09/22/66	2626	3531	---R	08
DDE		6V-53-N45	E4-5061-52-9	157	2500	TC360	3	TC-12739	05/08/72	2250	3630	M	08
DDE		6V-53-N45	E4-5063-52-1	160	2500	TC360	3	TC-10951	04/10/67	2231	3531	M 65R	08
DDE		6V-53-N45	E4-5063-52-1	165	2600	TC360	3	TC-12610	02/19/70	2800	3630		08
DDE		6V-53-N45	E4-5063-52-1	174	2800	TC360	3	TC-10983	05/05/67	2301	3531	SL R	08
DDE		6V-53-N45	E4-5063-52-1	180	2800	TC360	3	TC-10570	09/22/66	2324	3531	SO--R	08
DDE		6V-53-N45	E4-5063-52-1	165	2600	TC360D	3	TC-12617	02/19/70	2800	3630		08
DDE		6V-53-N45	TC-10954-2	170	2500	TC420	4	TC-10954	04/21/67	2198	3441	M 6 R	08
DDE		6V-53-N45	TC-11053-4	171	2500	TC420	4	TC-11053	05/24/67	2199	3441	ME98R	08
DDE		6V-53-N45	E4-5063-52-1	182	2800	TC420	4	TC-10277	05/26/66	2210	3461	SO R	08
DDE		6V-53-N45	E4-5061-52-3	159	2400	TT260	4	TC-13573	08/26/71	2453	2220	M 3	08
DDE		6V-53-N45	E4-5063-52-1	160	2500	TT260	3	TC-13555	08/24/71	2540	2220	M 6	08
DDE		6V-53-N45	E4-5061-52-6	138	2200	TT445	4	TC-9938	03/04/66	2147	4420	M 2 R	08
DDE		6V-53-N45	E4-5061-52-3	162	2800	TT445	4	TC-12643	02/27/70	3100	2420	O	08
DDE		6V-53-N45	E4-5061-52-3	177	2800	TT465		TC-17591	02/04/76	2124	3420		08
DDE		6V-53-N45	E4-5063-52-1	171	2500	TT470	4	TC-12476	12/08/69	2224	4420		08
DDE		6V-53-N45	E4-5063-52-1	171	2500	TT625	4	TC-9124	06/27/66	1960	4621	S R	08
DDE		6V-53-N45	E4-5063-52-1	168	2300	VTC430	3	TC-10064	08/26/66	2303	344	M 97R	08
DDE		6V-53-N45	E4-5063-52-1	128	2500	VTC430	3	TC-10050	01/24/66	2043	3441	M 84R	08
DDE		6V-53-N45	TC-11053-4	171	2500	VTC430	3	TC-11060	06/01/67	2186	3441	ME98R	08
DDE		6V-53-N45	E4-5063-52-1	156	2500	VTC430	3	TC-10561	09/20/66	2098	3461	M 5 R	08
DDE		6V-53-N50	E4-5061-52-1	171	2800	TC350	3	TC-14202	05/30/72	2652	3531	L	08
DDE		6V-53-N50	E4-5061-52-2	171	2500	TC360		TC-16161	06/13/74	2343	3630	ML74	08
DDE		6V-53-N50	XC-4970	162	2400	TC370	3	TC-11416	01/30/68	1854	3531	SO	08
DDE		6V-53-N50	E4-5061-52-1	189	2800	TC420	3	TC-10889	03/13/67	2193	3441	SL R	08
DDE		6V-53-N50	E4C5060-52-2	193	2800	TC420	4	TC-12860	06/24/70	2246	3461	O	08
DDE		6V-53-N50	XC-4970	162	2400	TT465	4	TC-11774	08/09/68	2233	4420		08
DDE		6V-53-S40		151	2500	TC430	3	E4-5066-12-11	01/20/68	1920			08
DDE		6V-53-S45	E4-5063-12-2	156	2500	TC350	3	TC-11382	11/16/67	2505	3531		08
DDE		6V-53-S45	E4-5063-12-2	168	2500	TC350	3	TC-10221	04/19/66	2514	3531	M 7 R	08
DDE		6V-53-S45	E4-5063-12-2	153	2500	TC360	3	TC-12737	03/16/70	2194	3630	M 64	08
DDE		6V-53-S45	E4-5061-12-7	138	2800	TC360	3	TC-10727	12/21/66	2120	3331	SL R	08
DDE		6V-53-S45	E4-5063-12-2	146	2600	TC370	3	TC-11607	04/02/68	1745	3531		08
DDE		6V-53-S45	E4-5061-12-7	154	2500	TC420	4	TC-11577	03/05/68	2100	3341	M 6	08
DDE		6V-53-S45	E4-5063-12-2	175	2800	TC420	4	TC-10164	03/17/66	2163	3461	R	08
DDE		6V-53-S45	E4-5061-12-7	154	2500	TC430	4	TC-11581	03/05/68	2170	3341	M 6	08
DDE		6V-53-S45	E4-5063-12-2	168	2500	TC430	3	E4-5066-12-9	01/20/68	1990			08
DDE		6V-53-S45	E4-5063-12-2	167	2500	TC450	3	TC-10490	06/23/66	1757		R	08