



 **HYDRAULICS &
LUBRICANTS**

Optimizing Operations. Together.

Hydraulic and Industrial Lubricants Reference Guide





Industrial Lubricants

Gear Oils

Quaker Houghton HEP Gear Oils are premium quality extreme pressure gear lubricants formulated with high viscosity index base oils. These products contain a sulfur-phosphorus additive package and do not contain lead, possess good adhesion properties, are non-corrosive and are foam inhibited. They resist oxidation, are thermally stable and have good demulsibility. Quaker Houghton HEP Gear Oils are recommended for circulating, splash, bath or spray lubrication systems on enclosed gear, chain or sprocket drives.

HEP GEAR OILS	68	100	150	220	320	460	ASTM TEST
AGMA Grade	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	
Viscosity cSt at 40°C	68	100	150	220	320	460	D445
cSt at 100°C	8.7	11.1	15	19	25	30	D445
Viscosity Index	90	90	90	95	95	90	D2270
API Gravity	30	29.5	27.5	28.5	27.5	27	D1298
Flash Point, COC, °F	415	415	425	430	450	540	D92
Cu Corrosion	1B	1B	1B	1B	1B	1B	D130
Timken EP, lbs	60	60	60	60	60	60	D2782

Way Oils

PROWAY way oils are formulated using only highly refined paraffinic base oils. They contain friction modifying additives that provide smooth slide way movement, or anti-stick-slip, on sliding machine ways including planers, grinders, shapers, milling and horizontal boring machines. PROWAY way oils have mild EP properties, exhibit good rust prevention and adhere strongly to sliding surfaces, minimizing wear to slide way components.

PROWAY WAY OILS	1	2	3	4	ASTM TEST
Viscosity, cSt at 40°C	32	68	150	220	D445
cSt at 100°C	5.4	8.7	15	19	D445
Viscosity Index	90	90	90	90	D2270
Pour Point, °F	10	20	15	20	D97
Flash Point, COC, °F	405	430	435	445	D92
Cu Corrosion	1B	1B	1B	1B	D130
Friction Test	NA	Pass	Pass	Pass	CMM
Thermal Stability	NA	Pass	Pass	Pass	CMM
Rust Test	Pass	Pass	Pass	Pass	D665B

Circulating Oils

Quaker Houghton Circulating Oils are blended with premium quality, highly refined base stocks. They have excellent resistance to oxidation and rust and are formulated with a unique demulsifier to enhance water separation characteristics. Quaker Houghton Circulating Oils can be used in any application calling for a general purpose non-antiwear lubricating oil. This product is designed to meet or exceed Morgan Morgoil lubricant specifications, including the Morgan "super demulsibility" advanced lubricant specification.

CIRCULATING OILS	8150	8220	8320	8460	8680	ASTM TEST
API Gravity	28	28	27.5	26.5	27.5	D1298
Viscosity, cSt at 40°C	150	220	320	460	680	D445
Viscosity Index	90	90	90	95	120	D2270
Flash Point, °F	460	420	450	550	500	D92
Pour Point, °F	+10	+10	+10	+15	+15	D97
Cu Corrosion	1A	1A	1A	1A	1A	D130

Spindle Oils

Quaker Houghton Spindle Oils are highly refined oils, carefully selected to provide excellent water separation and extremely low foaming tendencies over a wide range of temperatures. They contain inhibitors for rust, corrosion and oxidation. Quaker Houghton Spindle Oils are intended for use in high speed spinning and twister spindle bearings. These bearings typically operate at extremely high rpm's and require a low viscosity, high viscosity index oil to both lubricate and dissipate excessive heat. Quaker Houghton Spindle Oils may be used in hydraulic systems where light viscosity oils are required.

SPINDLE OILS	3	5	10	22	ASTM TEST
Viscosity, cSt at 40°C	2.8	5	10	22	D445
Viscosity Index	-	70	90	90	D2270
API Gravity	43	40	35	32	D1298
Pour Point, °F	-9	15	0	0	D97
Flash Point, °F	235	275	330	340	D92
Cu Corrosion	1B	1B	1B	1B	D130
Emulsion Test	Pass	Pass	Pass	Pass	D1401
Rust Test	Pass	Pass	Pass	Pass	D665B

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