

## HYDRAULIC OIL RECOMMENDED FOR HYDROSTAR MOTORS

OUR EXPERIENCE HAS BEEN THAT THE MANUFACTURER'S RECOMMENDED VISCOSITY IS CRITICAL TO LONG LIFE FROM THESE MOTORS. HYDROSTAR RECOMMENDS THAT THE VISCOSITY SHOULD BE MAINTAINED BETWEEN 165 AND 395 SUS FOR CONTINUOUS OPERATION. IN OUR CONVERSATIONS WITH HYDROSTAR THEY HAVE ADVISED THAT AN OPTIMUM VISCOSITY TO ASSURE GOOD LIFE IS 300 SUS.

IN GENERAL, MACHINES ARE FILLED WITH A PREMIUM GRADE HYDRAULIC OIL OF ISO68 VISCOSITY GRADE. WITH THAT OIL IN USE 130 DEGREES F OIL TEMPERATURE CORRESPONDS TO 165 SUS VISCOSITY. NOTE THIS IS OIL TEMPERATURE IN THE MOTOR, NOT OIL TEMPERATURE IN THE TANK WHICH IS PROBABLY COOLER AS THE OIL HAS BEEN THROUGH THE HEAT EXCHANGER BEFORE IT GOT TO THE TANK. THIS OIL SHOULD NOT BE ALLOWED TO GET ANY WARMER THAN 130 DEGREES F. IN FACT, BETTER MOTOR LIFE WOULD BE ACHIEVED AT A TEMPERATURE OF 100 DEGREES F WHICH CORRESPONDS TO 300 SSU.

WHEN THE AMBIENT AIR TEMPERATURE IS IN THE 100 DEGREE F RANGE IT IS VERY DIFFICULT TO KEEP THE OIL TEMPERATURE IN THE 100 DEGREE F TO 130 DEGREE F RANGE. UNDER THIS CONDITION AN ISO VISCOSITY GRADE 100 OIL IS RECOMMENDED. THIS OIL WILL PROVIDE 165 SUS VISCOSITY AT 150 DEGREE F AND 300 SUS AT 125 DEGREE F.

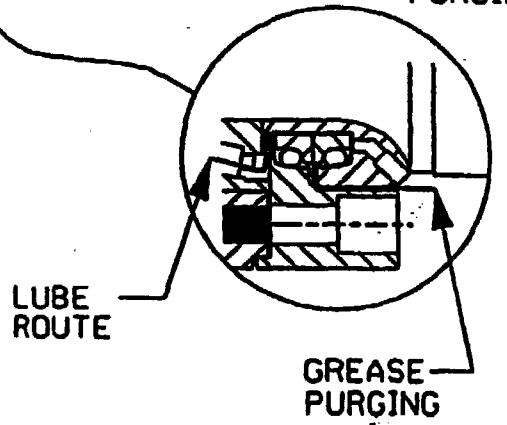
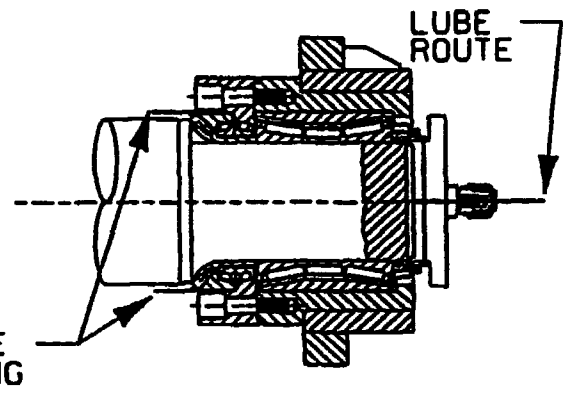
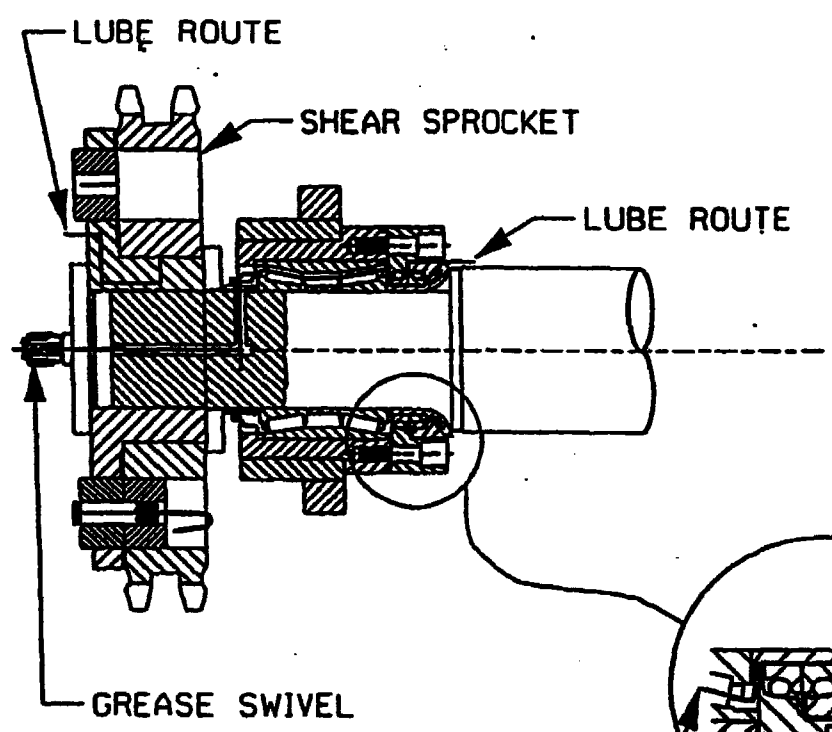
VISCOSITY REQUIREMENTS ARE TO INSURE ADEQUATE OIL FILM THICKNESS BETWEEN CONNECTING ROD BALL JOINT AND BRASS LINED BALL SOCKET IN PISTON. MOTORS WHICH ARE OPERATED AT LOWER THAN RECOMMENDED VISCOSITY OFTEN START TO SHED THE BRASS FROM THE PISTON SOCKET.

IN LOCATIONS WHERE AMBIENTS VARY WIDELY FROM SUMMER TO WINTER DIFFERENT OILS MAY BE REQUIRED TO ACHIEVE BEST VISCOSITY WHEN RUNNING. ALSO IN COLD AMBIENTS HEAVY OILS CAN CAUSE SUCTION PROBLEMS IN PUMPS, DURING STARTING, AND THIS FACTOR MUST BE ADDRESSED. SINCE CONDITIONS VARY WIDELY FROM MACHINE TO MACHINE CUSTOMERS SHOULD DISCUSS THIS PROBLEM WITH STANLER OR THEIR SALES/SERVICE REPRESENTATIVE.

38-021-0242  
6/29/88  
JRB

# WARNING

ALL BEARINGS CONNECTED TO THE CENTRALIZED LUBRICATION MANIFOLD MUST BE LUBRICATED WITH SUFFICIENT GREASE TO PURGE GREASE OUT THROUGH SEALS. PURGING ACCOMPLISHES TWO THINGS, FIRST IT INDICATES THE BEARING HAS BEEN COMPLETELY GREASED AND IT ALSO REMOVES ANY CONTAMINATION WHICH MAY HAVE WORKED IN AROUND THE SEALS. THE DETAIL SHOWN INDICATES THE LUBE ROUTE FOR A BREAKER BEARING AND IS TYPICAL OF OTHER BEARINGS.



CAD DRAWING		1
ALL CHANGES TO BE MADE ON CAD		ECN REV
MILLERSBURG, KENTUCKY		
LUBRICATION INSTRUCTIONS -		
BELT FEEDER		
DATE DRAWN	DRAWN BY	DESIGN APP BY
24 JUN 81	BW	
SHEET 1 OF 1		31-011-0052

CROSS REFERENCE

SUPPLIER TO STAMLER LUBRICANT SPECIFICATIONS

<u>SUPPLIER</u> →	<u>TEXACO</u>	<u>GULF</u>	<u>MOBIL</u>	<u>SHELL</u>	<u>BP PRODUCT</u>
<u>STAMLER SPEC.</u>					
1. H1	RANDO HD 68	HARMONY AW-68-AW	DTE 26	TELLUS 68	BP ENERGOL HLP 68
2. H2	FIRE RESISTANT HYDRAFLUID 82	GULF FR FLUID	PYROGUARD D	IRUS F	BP ENERGOL SFB 13
3. G1	MULTIGEAR 80W/90	MULTIPURPOSE GEAR LUBE 80W/90	MOBILUBE HD 80W/90	SPIRAX 80W-90	BP HYPOGEAR GL5-EP SAE 90
4. G2	HONOR CYLINDER OIL 680	SENATE 460	600W SUPER CYLINDER OIL	VALATA J-680	BP ENERGOL AC - C 460
5. G3	REGAL OIL R&O 150	HARMONY 150D	DTE OIL EXTRA HEAVY	TURBO OIL 150	BP ENERGOL CS 150
6. G4	REGAL OIL R&O 220	HARMONY 220	DTE OIL BB	TURBO OIL 220	BP ENERGOL CS 220
7. B1	MULTIFAK EP-0	GULF CROWN EP-0	MOBILUX EP-0	ALVANIA EP RO	BP ENERGREASE PTO OR BP ENERGREASE FG-00-EP
8. B2	MULTIFAK EP-0	GULF CROWN EP-0	MOBILUX EP-0	ALVANIA EP RO	BP ENERGREASE PTO OR BP ENERGREASE FG-00-EP
9. B3	NONE AVAILABLE	NONE AVAILABLE	MOBIL GREASE BRB NO. 4	NONE AVAILABLE	NONE AVAILABLE
10. G5	50% MEROPA 68 & 50% MEROPA 150	GULF EP LUBRICANT HD 100	MOBIL GEAR 627	OMALA 100	BP ENERGOL GR - XP 100
11. G6	MEROPA 150	GULF EP LUBRICANT HD 150	MOBIL GEAR 629	OMALA 150	BP ENERGOL GR - XP 150

38-021-0288  
10-11-89 JRB

**RECOMMENDED LUBRICANTS  
UNDERGROUND CRAWLER EQUIPPED MACHINES**

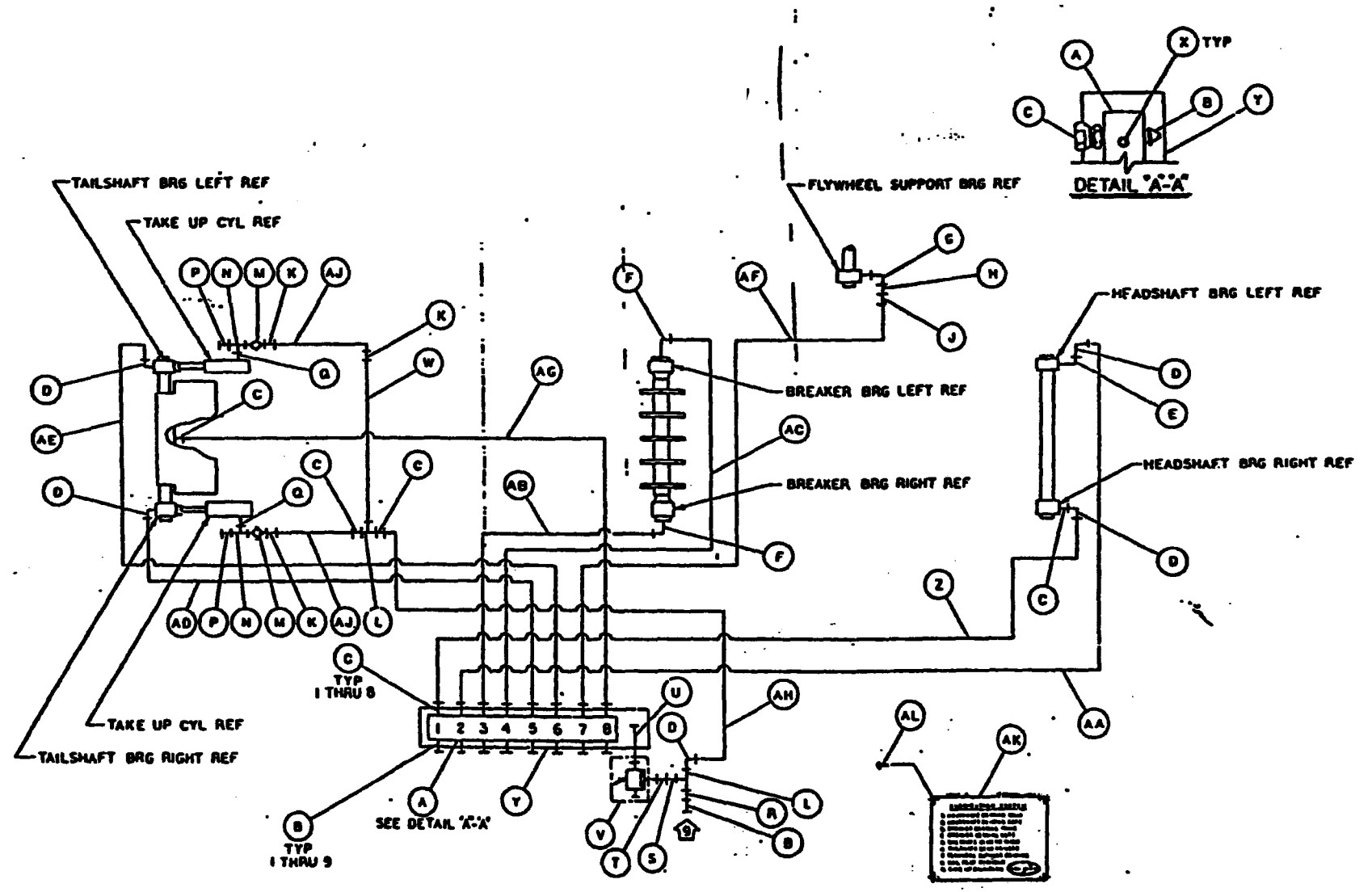
REF	PART TO BE LUBRICATED	SPECIFICATIONS	STALER SPECIFICATION NUMBER
1	HYDRAULIC SYSTEM (MINERAL OIL)	NON DETERGENT PREMIUM GRADE OIL CONTAINING ANTI-WEAR, ANTI-RUST, ANTI-OXIDATION & ANTI-FOAMANT ADDITIVES WITH AN ASTM VISCOSITY GRADE 315 (I.S.O. 68) *4	H1
2	HYDRAULIC SYSTEM (FIRE RESISTANT FLUID)	USBM CODE 30	H2
3	TRACKS - WITH: INTEGRAL GEAR BOX, TORQUE HUB OR FUNK GEAR BOX	EP-80W90,API-GL-5 MIL - L - 2105C	G1
4	WORM GEAR SPEED REDUCERS (CONE DRIVE)	AGMA 8 COMPOUND *2	G2
5	OTHER THAN WORM GEAR SPEED REDUCERS(FALK)	15 DEGREE - 60 DEGREE F, AMB - AGMA 4 *1 50 DEGREE-125 DEGREE F, AMB - AGMA 5 *1	G3 G4
6	BREAKER SHAFT, HEAD & TAIL SHAFT BEARINGS OTHER ROLLER BEARINGS & TAKE UP CYLINDERS	NLGI EP-0	B1
7	FALK COUPLINGS	NLGI-2	B2
8	SIER BATH COUPLING	NLGI EP-0	B1
9	WORM THRUST BEARING ON "WORM OVER" CONE DRIVE SPEED REDUCER	NLGI - 4 SODA BASE EXXON ANDOK "C"	B3
10	DRIVE CHAINS	AGMA 3 EP *3	G5
11	"TACONITE" SEALS ON SPEED REDUCERS	NLGI-2	B2

\* 1. MOBIL SHC 630 SYNTHETIC OIL IS APPROVED AS A SUPERIOR LUBRICANT IN ALL FALK REDUCERS WHERE AMBIENT IS BETWEEN -30 DEGREE F, AND 100 DEGREE F.

\* 2. MOBIL SHC 634 SYNTHETIC OIL IS APPROVED AS A SUPERIOR LUBRICANT IN ALL CONE DRIVE REDUCERS.

\* 3. USED MOTOR OIL OR HYDRAULIC OIL IS ACCEPTABLE FOR THIS APPLICATION.

\* 4. WHEN AMBIENT IS 100 DEGREE F OR ABOVE, OR WHEN HYDRAULIC MOTOR CASE TEMPERATURE IS 130 DEGREE F OR HIGHER, ISO 100 GRADE OIL SHOULD BE USED INSTEAD OF ISO 68.



THE W. E.  
 STAMLER CORPORATION  
 PARTS LIST - CENTRALIZED  
 LUBRICATION SYSTEM  
 MODEL:

PART NO. - 310151505

DESCRIPTION - CENTRALIZED LUBE SYSTEM U/M - EA

ITEM	PART NO.	DRAWING NO.	DESCRIPTION	QUANTITY	U/M
A	300570009		GREASE MANIFOLD	1.000	EA
B	590170004		STRAIGHT GREASE FTG	9.000	EA
C	010724		CONNECTOR	12.000	EA
D	210744		ELBOW-MALE PIPE 90 DEG	5.000	EA
E	480570142		ELBOW-STREET 90 DEGREE	1.000	EA
F	050744		ADAPTER	2.000	EA
G	CTXS4		ELBOW-90 DEG	1.000	EA
H	320570292		TUBE CONNECTOR	1.000	EA
J	GTXS44		CONNECTOR	1.000	EA
K	020744		ADAPTER	3.000	EA
L	480570049		TEE	2.000	EA
M	490560014		VALVE	2.000	EA
N	480570015		TEE-STREET	2.000	EA
P	490560001		VALVE-NEEDLE SHUTOFF	2.000	EA
Q	880110052		NIPPLE	2.000	EA
R	480570038		BUSHING	1.000	EA
S	880110037		NIPPLE	1.000	EA
T	480570111		BUSHING	1.000	EA
U	480100010		PLUG	1.000	EA
V	480560136		GREASE RELIEF VALVE	1.000	EA
W	7175		PIPE	1.000	EA
X	A8CJ420G20		SOCKET HEAD CAP SCREW	2.000	EA
Y	300140080		PLATE	1.000	EA
Z	350570035		HOSE	1.000	EA
AA	350571275		HOSE	1.000	EA
AB	350570348		HOSE	1.000	EA
AC	350571276		HOSE	1.000	EA
AD	350570040		HOSE	1.000	EA
AE	350571277		HOSE	1.000	EA

THE W. R. STANLEY CORPORATION  
MILLERSBURG, KENTUCKY

PARTS LIST  
CENTRALIZED LUBE SYSTEM

\*\*\* CONTINUED \*\*\*

DATE 4/26/83  
DRAWN BY DM  
DRAWING NO. 31-015-1505

E.C.N.

REV.

LAST REVISED  
2/04/83

PART NO. - 310151505

DESCRIPTION - CENTRALIZED LUBE SYSTEM

U/M - EA

ITEM	PART NO.	DRAWING NO.	DESCRIPTION	QUANTITY	U/M
	AF 350570297		HOSE	1.000	EA
	AG 350571273		HOSE	1.000	EA
	AH 350570708		HOSE	1.000	EA
	AJ 350570033		HOSE	2.000	EA
	AK 8626		NAME PLATE-CENTRAL LUBE	1.000	EA
	AL A2XS100004		DRIVE SCREW	4.000	EA

- NOTES-
1. FOR USE WITH 44 IN. CONVEYOR WIDTH.
  2. PART NO. AT TOP OF PAGE INDICATES COMPLETE ASSY.
  3. FOR PARTS ILLUSTRATION SEE DWG NO. 35-015-0199.

THE W.H. STAMLER CORPORATION  
MILLERSBURG, KENTUCKY

PARTS LIST.  
CENTRALIZED LUBE SYSTEM

\*\*\* LAST PAGE \*\*\*

DATE 4/26/83  
DRAWN BY DM  
DRAWING NO. 31-015-1505

E.C.N.

REV.

LAST REVISED  
8/04/83