

KLEMM - IR-CMM Drill - Spec Sheet

Includes:

**Spare Electric Motor, Spare Parts Gang Box
2 manuals**

<u>Year: 1986</u>		<u>SN# G51152</u>	
Mast Length:		10'10"	
Usable Stroke:		7'9"	
Klemm Rotary Drill Head:		HDK 80025-3	
		12000 Nom. Torque	
		8670 FT LBS	
Extraction Force:		18000 lbs	
Crowd Force:		18000 lbs	
Jaw Assembly Double Clamp:		Yes	
Max Casing Diameter:		10"	
Control Panel:		Yes	
Mast Winch:		Yes	
Overall Weight:		10700 lbs	(5.35 ton)
Power Cable Length:		1@44'	
		1@199'	
		1@226'	
Towing Hitch:		Pintle	
IR Order #:		165-92880	
Motor #1:	HP10	Lincoln AC Motor	
Motor #2:	HP 60	Leeson 230V/460V	
Power Requirements:		RPM - 1775	
		Phase 3	
		Amps 154/77	
Power requirement / Generator equivalent		26kW / 45 kVA	240V-480V

CMM Jumbo

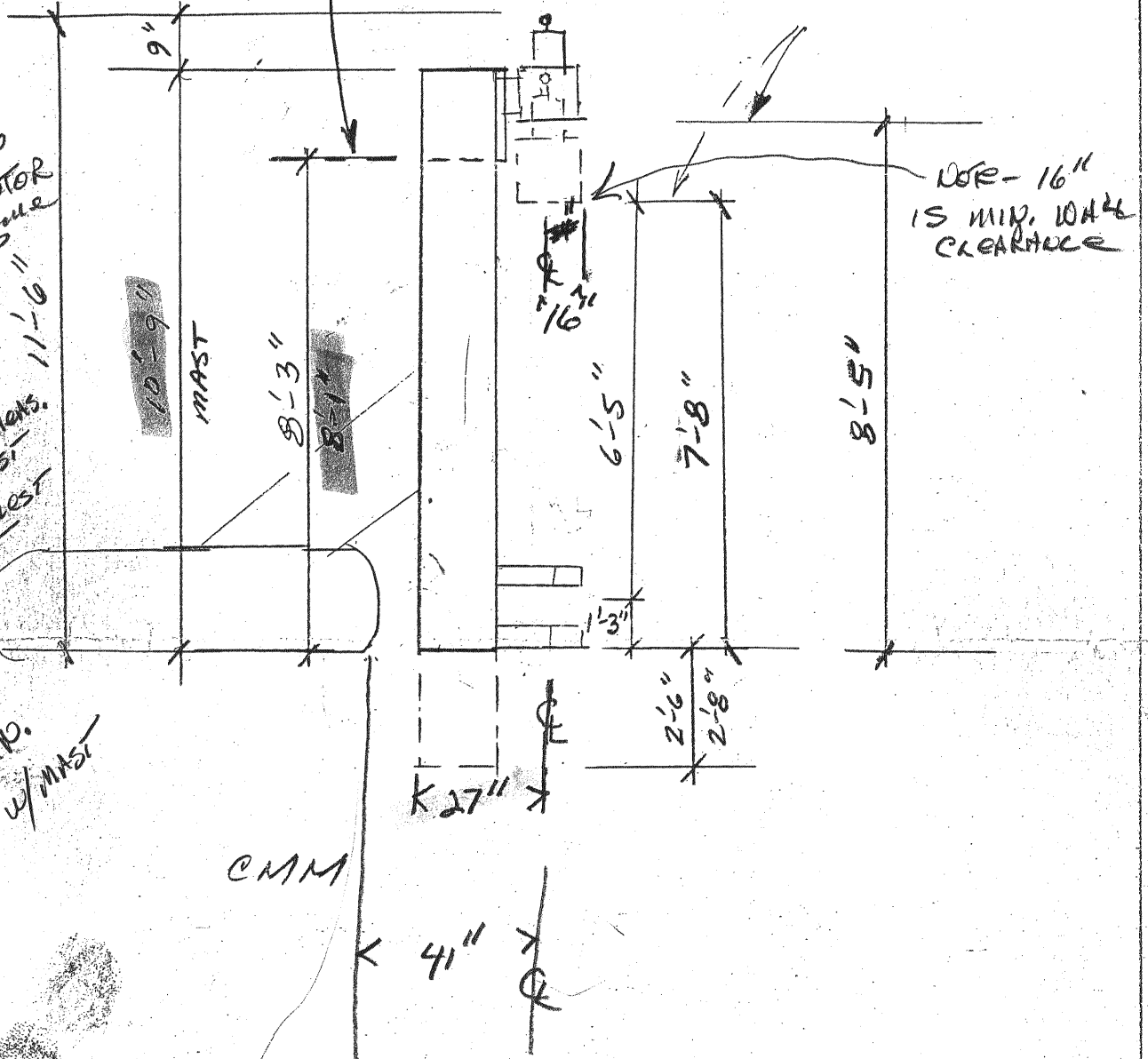
MINIMUM
CEILING
HEIGHT

BOTTOM OF
SUB

Note -
WITH NEW
HEADS, MOTOR
DOES NOT COME
ABOVE TOP
OF MAST. 11'-10"

THIS MEANS
THAT 11'-6" MEAS.
DOES NOT EXIST.
10'-9" IS TALLEST
MEASUREMENT
WITH MAST

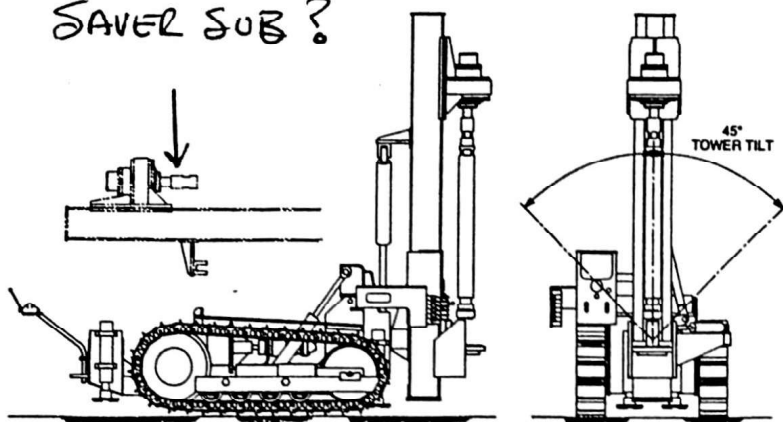
8'-11" IS MIN.
HEIGHT w/ MAST
DOWN



NOTE - WIDTH OF BREAKING RAMS
AT BOTTOM OF MAST IS 38 1/2"

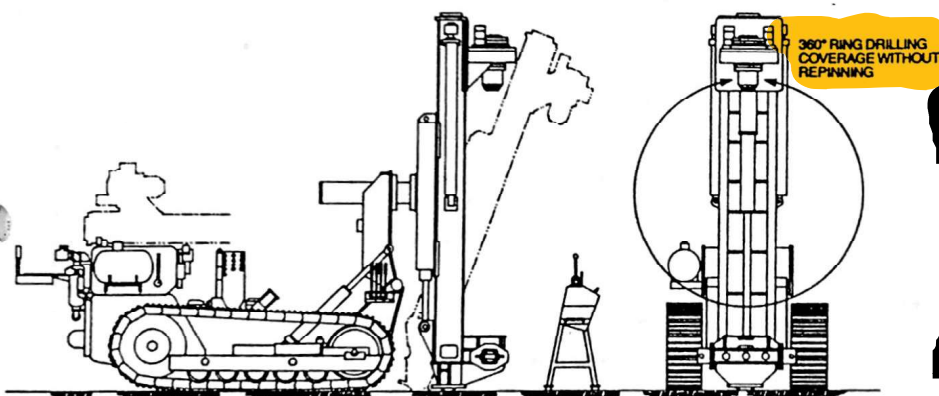
CMM-1 and CMM-2 downhole drill jumbos

SAVER SUB?



CMM-1 jumbo

Length, tower down	10' 10 1/2" (3.32 m)
Length, tower up	13' 7 1/2" (4.15 m)
Width	4' 7" (1.4 m)
Height, tower down	7' 3 1/2" (2.22 m)
Height, tower up	11' 4" (3.45 m)
Net weight	10,700 lb. (4864 kg)
Drill rod length	5' 0" (1.52 m)



Ingersoll-Rand downhole drills

Specifications	DHD340A*	DHD350*	DHD16A	DHD360*
Bit size	4 1/8-4 1/2" (105-114 mm)	5 1/8-5 1/2" (130-140 mm)	6"-6 1/2" (152-164 mm)	6"-6 1/2" (152-165 mm)
Net weight (less bit)	79.25 lb (35.95 kg)	151 lb (68.5 kg)	190 lb (86 kg)	215 lb (97.5 kg)
Length (incl. bit ext.)	45.98" (1168 mm)	53.75" (1570 mm)	58.69" (1491 mm)	51" (1295 mm)
Outside diameter	3.62" (92 mm)	4.5" (114 mm)	5.25" (133 mm)	5.375" (137 mm)
Air consumption:				
At 100 psig (7.0 kg/cm ²)	110 scfm (5.8 m ³ /min)	159 scfm (4.52 m ³ /min)	325 scfm (9.2 m ³ /min)	580 scfm (16.4 m ³ /min)
At 250 psig (17.6 kg/cm ²)	300 scfm (8.5 m ³ /min)	475 scfm (13.5 m ³ /min)		940 scfm (25.6 m ³ /min)
At 350 psig (24.6 kg/cm ²)		800 scfm (22.7 m ³ /min)		

*Valveless designs

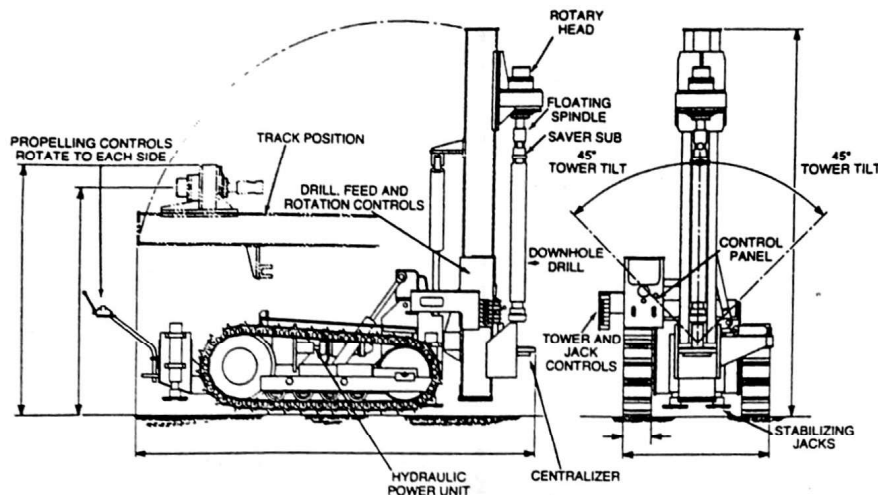
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Ingersoll-Rand Co.
Rock Drill Division
Phillipsburg, NJ 08865

INGERSOLL-RAND
DRILLING EQUIPMENT

CMM

Downhole drill jumbo - specifications



Length - Tower down	10' 10 1/2" (3315 mm)	Air motor drive (16-hp):	
Tower up	13' 7 1/2" (4153 mm)	Max air consumption at 90 psi	340 cfm (8.2 m³/min) at max. hp.
Width -	4' 7" (1397 mm)	Air consumption while drilling	150 cfm (4.25 m³/min)
Height - Tower down	7' 3 1/2" (2223 mm)	Airline lubricator	6 US gal. (22.7 liters)
Tower up	11' 4" (3454 mm)	Rotary head pullup (max stalled)	18,000 lb. (8.82 kg)
Net Weight	10,700 lb. (4864 kg)	Rotary head spindle speed	0 to 23 rpm
Maximum rotary head travel	6' 2" (1.88 m)	Spindle torque at max hp	2,000 ft. - lb. (276 m - kg)
Drill rod length*	5' 0" (1.52 m)	Spindle torque stalled	3,500 ft. - lb. (483 m - kg)
Drill rod diameters and threads:	3" OD w/2 1/8" API 4" & 4 1/2" OD w/3 1/2" API	Hole depth**	600 ft. (183 m)
Hydraulic oil reservoir	32 US gal. (121 liters)	Hole diameter***	4 1/8" to 6 1/2" (105 to 165 mm)
Hydraulic oil filter	10 - micron		

*Propelling controls swung sideways for transport.

**The CMM can be provided with a special tower for 10-ft. headroom operation, using 4 ft. drill rods.

***Varies with rock conditions and drill size.

***Can be increased to 10" (254 mm) with "Hole Opener" bit on DHD-16A.

I-R Downhole drills

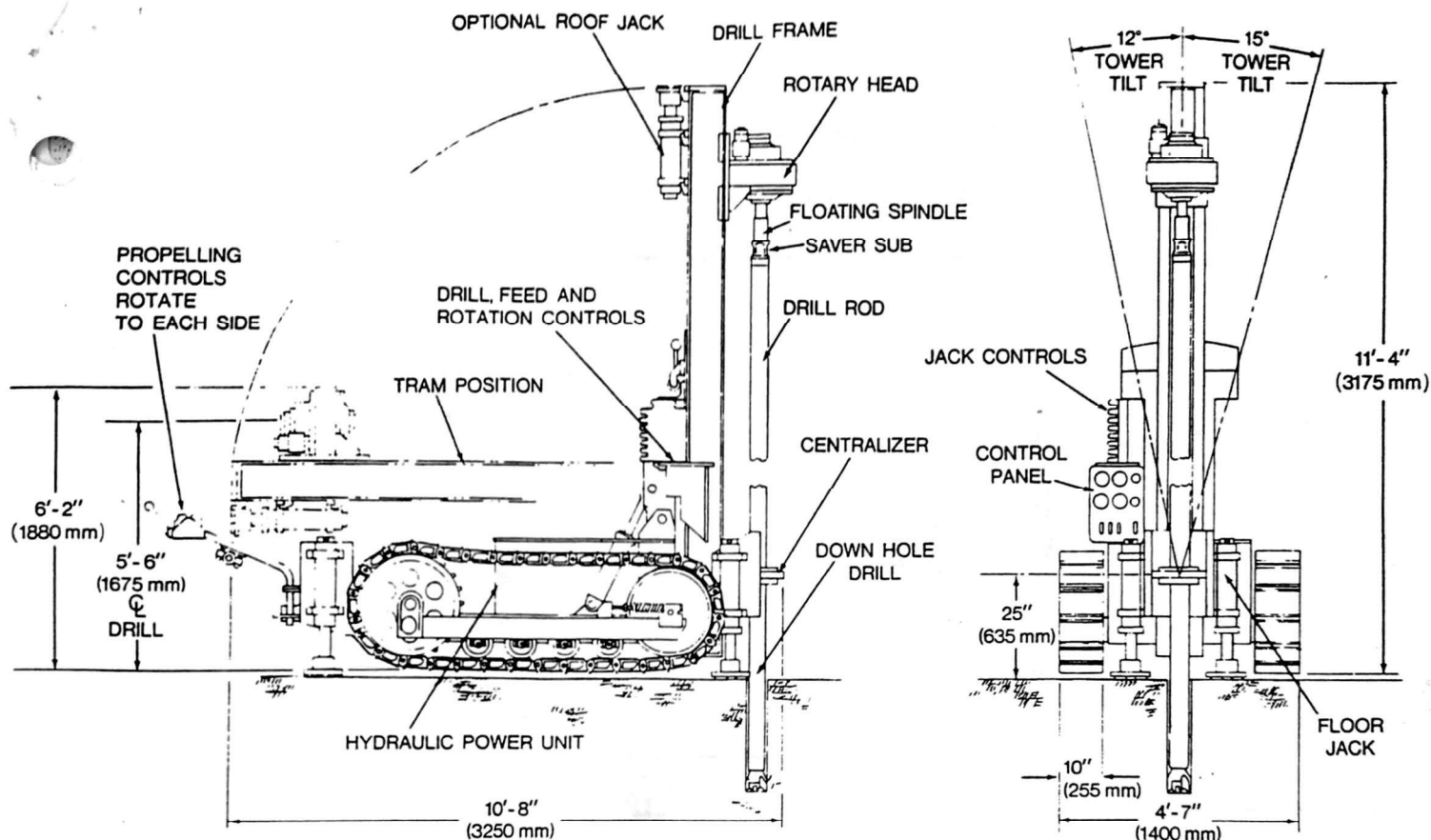
	DHD-24CV	DHD-15	DHD-16A	DHD-360
Weight	74 lb. (33.6 kg)	131 lb. (59 kg)	190 lb. (86 kg)	215 lb. (97.5 kg)
Length, bit extended	46 5/16 in. (1176 mm)	55 15/32 in. (1409 mm)	58 11/16 in. (1491 mm)	60 11/16 in. (1541 mm)
Length, bit retracted	43 9/16 in. (1107 mm)	52 23/32 in. (1339 mm)	55 9/16 in. (1411 mm)	58 7/16 in. (1484 mm)
Outside diameter	3 21/32 in. (92.9 mm)	4 3/8 in. (111 mm)	5 1/4 in. (133 mm)	5 3/8 in. (137 mm)
Backhead thread form	2 3/8 in. reg. API	3 1/2 in. reg. API	3 1/2 in. reg. API	3 1/2 in. reg. API
Bit sizes used	4 1/8 in. (150 mm) dia. 4 1/2 in. (114 mm) dia.	5 in. (127 mm) dia. 5 1/2 in. (140 mm) dia.	6 in. (152 mm) dia. 6 1/2 in. (165 mm) dia.	6 in. (152 mm) dia. 6 1/2 in. (165 mm) dia.
*Air consumption	195 cfm (5.5 m³/min)	240 cfm (6.8 m³/min)	325 cfm (9.2 m³/min)	580 cfm at 250 psi (16.4 m³/min at 1724 kPa)

*Air consumption figures shown are for drill only at 100 psi (690 kPa) unless otherwise stated, additional air may be required for hole cleaning depending on rock and drilling conditions. Performance may be increased by using higher pressure air.



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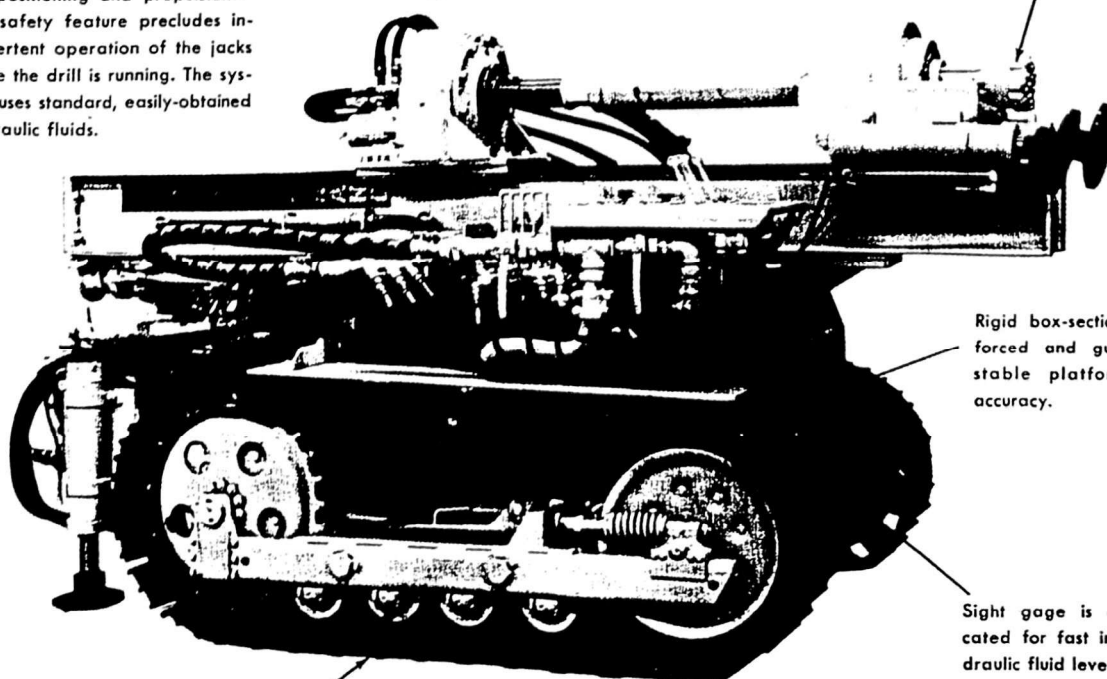
Ingersoll-Rand Company
Rock Drill Division Underground Section



Main power system is a single-vane hydraulic pump driven by a radial-piston air motor; throttling air input provides good speed control. A selector valve controls hydraulic fluid flow to the separate systems for (a) drilling controls, and (b) positioning and propulsion—this safety feature precludes inadvertent operation of the jacks while the drill is running. The system uses standard, easily-obtained hydraulic fluids.

Vaporsol® system feeds water into the drilling air supply to eliminate dust and improve hole cleaning; it operates when mine water supply pressure is inadequate.

I-R Downhole drills and bits set the standards for in-hole hammers; see page 4.



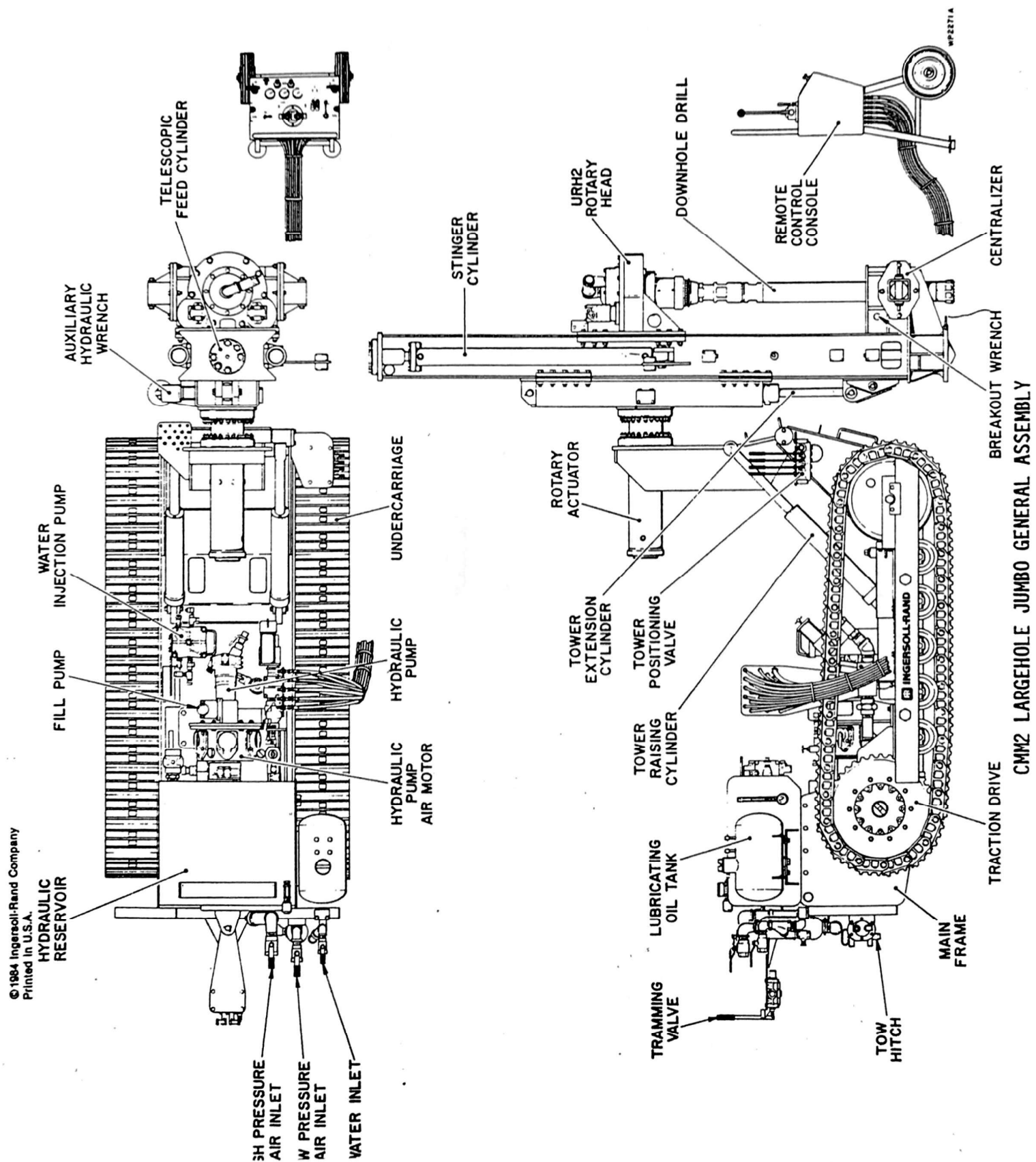
Rigid box-section frame is reinforced and gusseted; provides stable platform for drilling accuracy.

Sight gage is conveniently located for fast inspection of hydraulic fluid level.

Tracks are driven independently by hydraulic motors with forward, reverse and hydrostatic braking. Flow divider assures adequate power supply to each side. Tracks may be easily disengaged from the hydraulic drive for towing.

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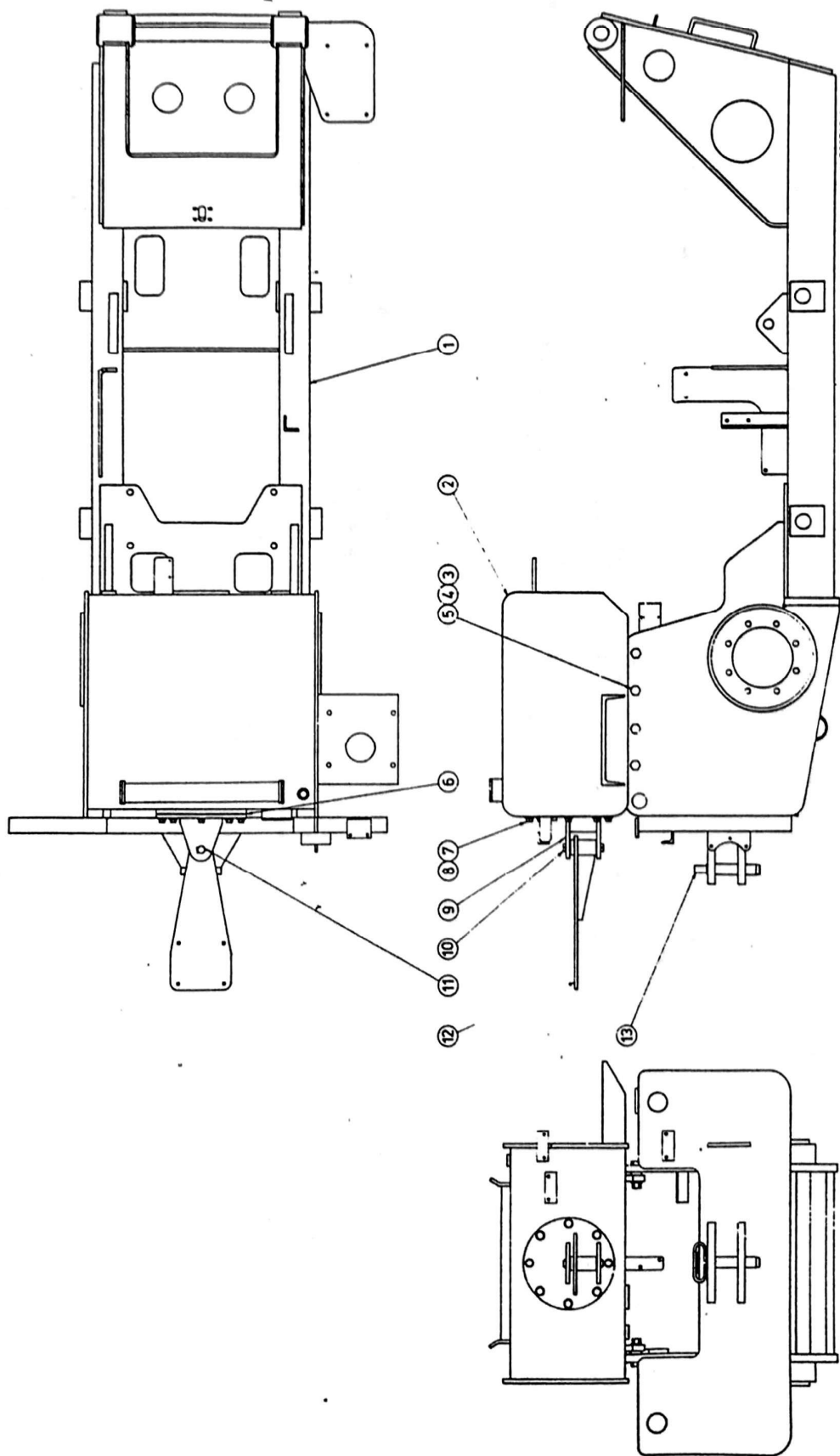
Cancels PS-5601.25, Sh. 1.1,
dated October 29, 1982



PARTS LIST

MAIN FRAME ASSEMBLY FOR CMM2 LARGE HOLE JUMBO

PS-5601.25
Sheet 2.1
October 29, 1982
First Edition



MAIN FRAME ASSEMBLY
(Refer to parts list on page 2)

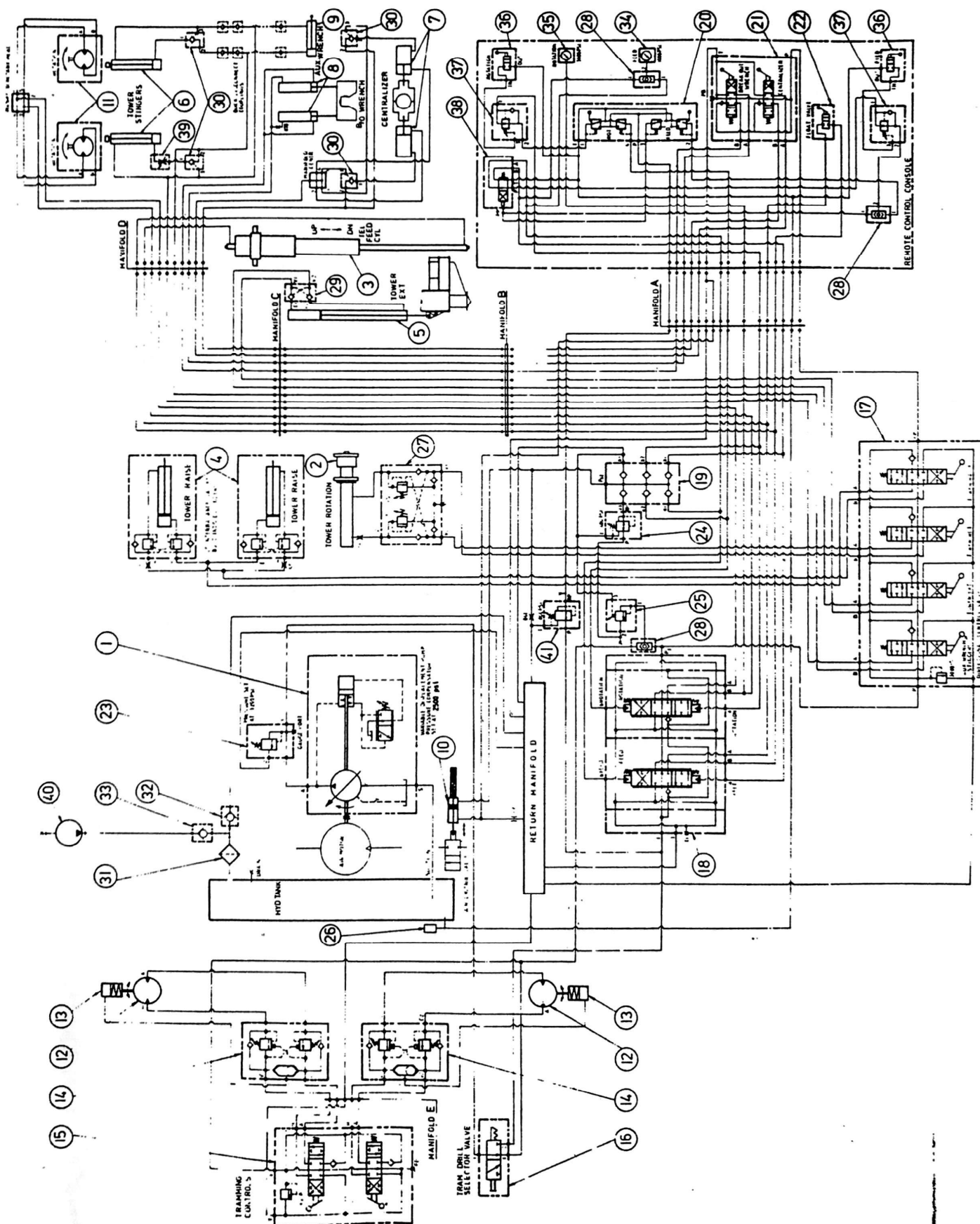
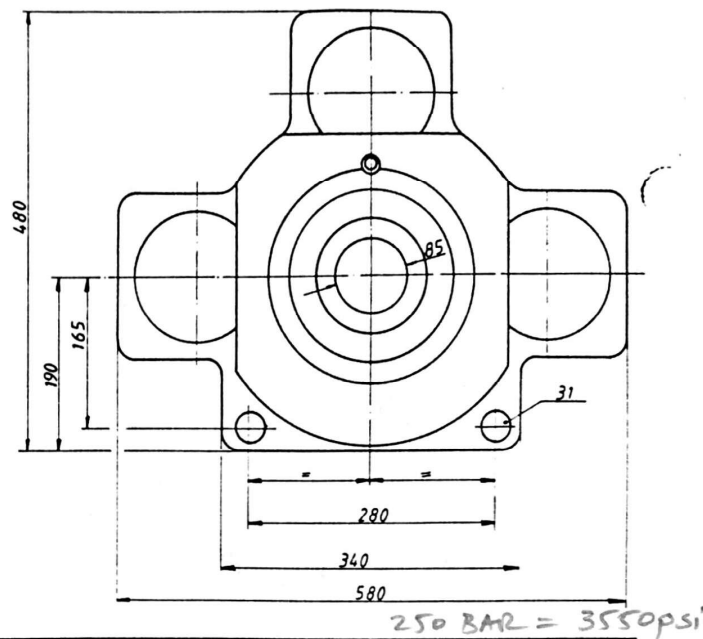
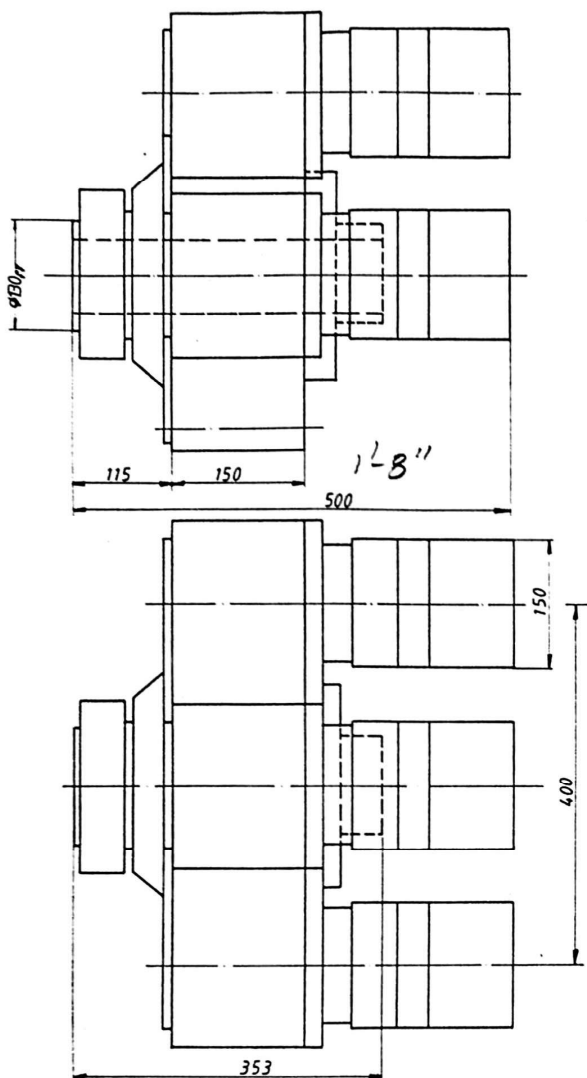
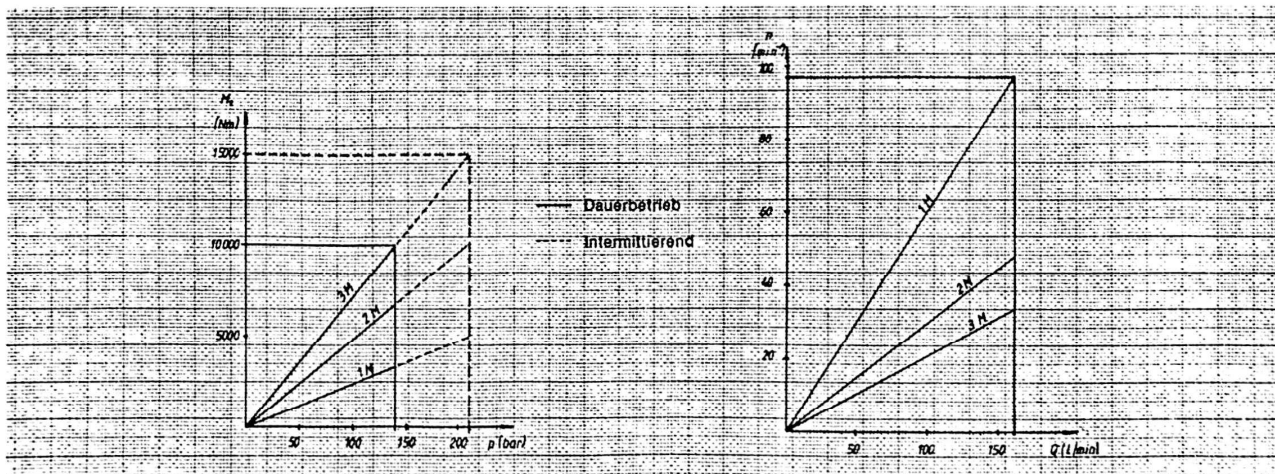


Figure 10-6. Hydraulic Schematic

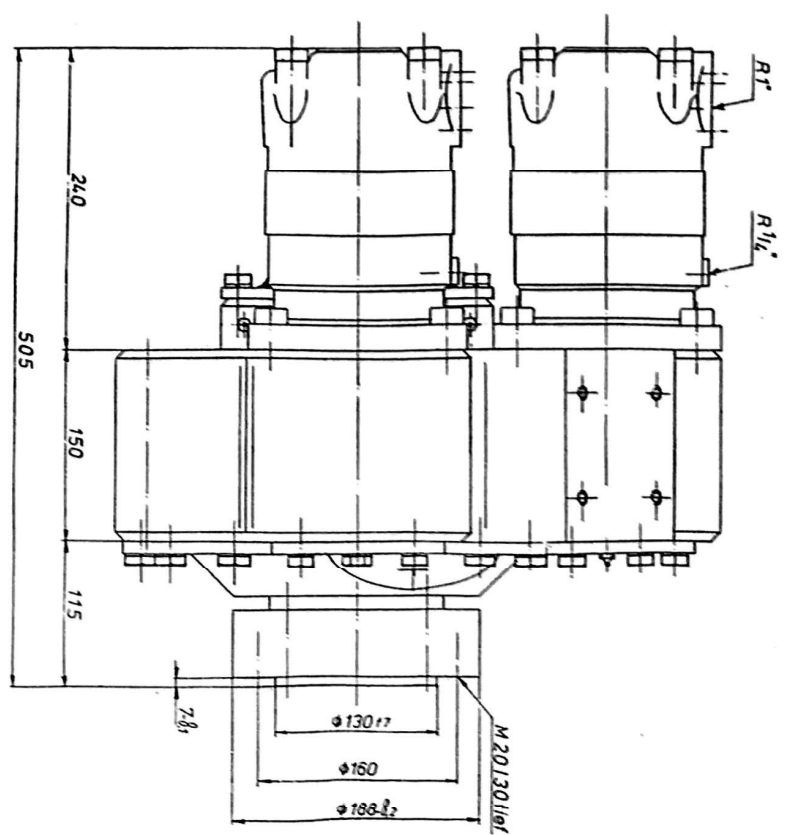
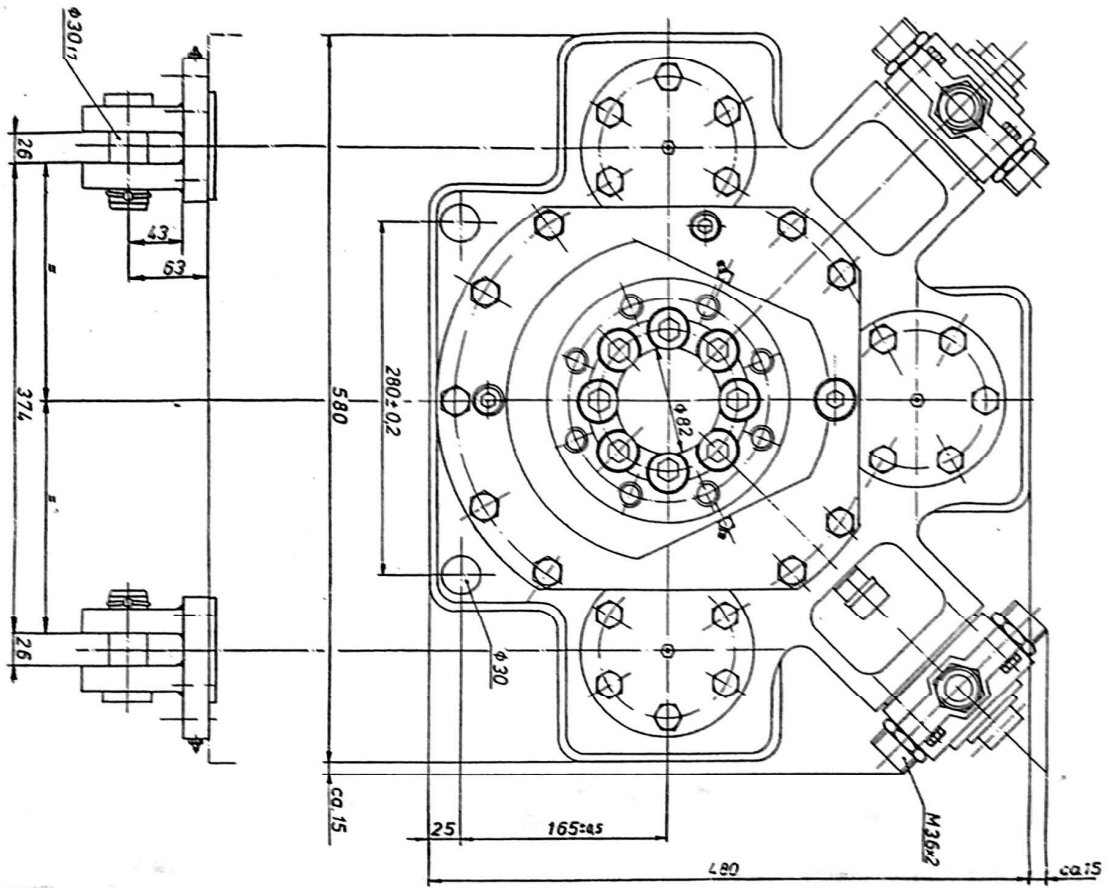
V-397064-1A



Motor-Typ Motor-type		H		
		1 M.	2 M.	3 M.
Arbeitsdruck Working pressure	p [bar]	140	140	140
Schluckvolumen Capacity	Q _s [l/min]	je 160		
Drehmoment Torque	M _t [Nm]	4000	8000	12000
Drehzahl Speed	n [min ⁻¹]	46	23	15
	78 l/min	n [min ⁻¹]	66	33
	110 l/min	n [min ⁻¹]	97	48
	160 l/min	n [min ⁻¹]		33
Gewicht Weight	[kp]	450		



C M M



KLEMM
Bohrtechnik
Typ: HDK800ZS-3
Maßzeichnung
Dimensional drawing
E-Nr.: 065976-1
CPN: 51800480